



CONTRACT AGREEMENT

NAME: Duke-NUS Medical School

ADDRESS: 8 College Road, Singapore, 169857

PROJECT TITLE Understanding Risk of Zoonotic Virus Emergence in EID Hotspots of Southeast Asia

PERIOD 17 June 2020 – 31 May 2022

PHONE: (b) (6)

EMAIL: (b) (6)

FUNDING SOURCE: 07-049-7012-52338

DUNS NUMBER: 595192253

AGREEMENT AMOUNT: \$108,006.48

This Contract Agreement (“**Agreement**”) is by and between EcoHealth Alliance, a United States tax-exempt organization, located at 520 Eighth Avenue, Suite 1200, New York, New York, 10018 (hereinafter referred to as “EHA”), and National University Of Singapore, a public company limited by guarantee and having its registered office at 21 Lower Kent Ridge Road, Singapore 119077, acting through its Duke-NUS Medical School, located at 8 College Road, Singapore 169857 (hereinafter referred to as “Duke-NUS”)

An authorized representative of EHA has executed the original version of this Agreement. Please sign the digital copy and return it via email. This Agreement shall be effective only upon its execution by EHA and Duke-NUS.

I. TERM AND AMOUNT OF THE AGREEMENT

Subject to the continued availability of funding for this project, the term of this Agreement shall be as per the period stated above, renewable for an additional term solely by written agreement between Duke-NUS and EHA.

The amount of the contract as indicated on the preceding page and detailed in Attachment C: Project Budget is to be disbursed following receipt of a official, detailed invoice(s), percentage of effort rate(s), and date(s) worked, or locations and dates for travel and all other details as elaborated in the Financial Responsibilities section below, or subject to availability of funds a \$25,000 advance to be spent on agreed project expenses. All deliverables and project details are elaborated in Attachment B: Scope of Work.

II. CONDITIONS OF THE AGREEMENT

The laws of the United States place certain restrictions on the use of funds awarded to organizations by charitable trusts and foundations. Therefore, Duke-NUS agrees to the following terms and conditions:

1. **Internal Revenue Code:** Funds awarded by EHA may not be used for any forbidden political activities or for any purposes prohibited by the United States Internal Revenue Service Code.
2. **Foreign Corrupt Practices Act of 1977: as amended:** To the extent applicable to Duke-NUS, Duke-NUS agrees to comply with this Act that prohibits individuals and entities from making payments to foreign government officials for the purposes of obtaining business. This includes the offer, either directly or indirectly, of anything of value, to a foreign government official to influence that official in his or hers official capacity to do or omit any act in violation of their official capacity or lawful duty, or to secure any improper advantage in order to assist in obtaining or retaining business for or with, or directing business, to any person.

Duke-NUS' directors, officers, employees and agents have not and will not offer, pay, promise or authorize the payment, directly or indirectly through any other person or entity, of any monies or anything of value to any governmental official or employee or any political party or candidate for political office, for the purpose of inducing or rewarding any favorable action or influencing any act or decision of such official or of the government.

Funds in this Agreement may not be used to finance the travel, per diem, hotel expenses, meals, conference fees or other conference costs for any member of a foreign government's delegation to an international conference sponsored by a public international organization, except as otherwise agreed upon by EHA and Duke-NUS.

3. **Support for Acts of Terror:** Duke-NUS shall not enter into transactions with and provide material support or resources to individuals or groups that engage in or support acts of terror and Duke-NUS represents that it does not engage in or support, directly or indirectly, acts of terror.
4. **Financial Conflict of Interest:** Duke-NUS certifies and represents that no significant financial conflict of interest exists regarding participation in this project that would influence the research. They furthermore agree that if such a conflict develops during the course of this project they will promptly notify and disclose that conflict in writing to the EHA Principal Investigator and the EHA

Chief financial Officer and may be required to develop a plan of corrective action to resolve that matter. This requirement shall extend to all individuals with managerial oversight of this grant including their spouse and dependent children.

5. **Federal Funding Accountability and Transparency Act:** Duke-NUS agrees to fill out Attachment A: FFATA and provide applicable US government website(s) (sam.gov) with all information required by this law.
6. **Non-Discrimination Policy:** Duke-NUS will follow a comprehensive, consistent, and non-discriminatory policy to the extent it can accomplish this goal within the scope of the project objectives.

Duke-NUS acknowledges that EHA is implementing, and over the course of this Agreement will continue to implement, reasonable monitoring and oversight to assure the continuing truth of these representations and certifications and that, on request, Duke-NUS will provide documentation of the monitoring and oversight of these efforts.

Notwithstanding any term to the contrary, either Party may terminate this Agreement with immediate effect by giving written notice to the other Party upon occurrence of any of the following:

- (a) where the other Party commits a breach of any material term of this Agreement that is incapable of remedy;
- (b) where the other Party commits a breach of any material term of this Agreement is capable of remedy, and is not remedied within thirty (30) days from the date of written notice from the terminating Party to remedy such breach;
- (c) where the other Party enters into liquidation (except for the purposes of a bona fide reconstruction or amalgamation), or has an administrator, receiver or manager appointed over any part of its assets or undertaking, or makes any arrangement with its creditors, or ceases to carry on business;
- (d) where the other Party commits any act of criminal breach of trust, dishonesty, corruption or fraud;
- (e) where the project funding or any part thereof has not been paid when due or where the other Party fails to pay any monies under this Agreement which has been properly incurred and remains due and owing to the Terminating Party.

In the event of termination of this Agreement, regardless of whether termination was due to breach of this Agreement, EHA shall reimburse Duke-NUS for all approved expenses prior to the effective date of termination.

III. USE OF FUNDS

The contract monies, including any interest earned, may only be used for the purpose(s) stated in this Agreement, as contained in the approved budget in Attachment C: and detailed in Attachment B: Scope of Work.

Funds may not be expended for any other purpose without the prior written approval of EHA. Should there be a material change in the purpose, character, or method of operation of the Agreement, Duke-NUS Medical School agrees to give prompt and detailed written notice to EHA. The contract project shall be performed in accordance with Attachment B: Scope of Work.

Where appropriate, Duke-NUS agrees to conform to accepted animal care and use practices as laid out in the latest animal ethics licenses, as applicable and approved by EHA and filed with the appropriate regulatory authorities. Duke-NUS also agrees to follow all requirements regarding scientific conduct.

IV. NATURE OF RELATIONSHIP

The parties hereto intend by this Agreement solely to specify the terms for Duke-NUS' use of EHA contract funds. Nothing in this Agreement shall be construed as creating or constituting the relationship of employer and employee between EHA and Duke-NUS or the continuation of funding from EHA. During the course of completing the contract project work, Duke-NUS remains a distinct and separate legal entity from that of EHA.

Duke-NUS agrees to conform to the laws and regulations of the location in which they operate and obtain all required permits, agreements and insurance required by local authorities. They also agree to pay all fees and taxes levied on this project by applicable political authorities or designated subdivisions utilizing the funds of this agreement.

V. REPORTING REQUIREMENTS

Duke-NUS agrees to fulfill the program scope of services and reporting requirements that are incorporated into this Agreement and detailed in Attachment B: Scope of Work.

VI. CONFIDENTIALITY; PROPRIETARY INFORMATION AND DATA

- (a) The parties agree that all information and records exchanged in connection with this Agreement ("Confidential Information") shall be treated as strictly confidential, and shall not be used or disclosed for any purpose other than the performance of the Agreement and implementation of the Project. This confidentiality obligation shall continue in force for a period of three (3) years from the date of expiry or early termination of this Agreement.
- (b) Unless stated otherwise herein or agreed to in writing and signed by both parties, nothing contained in this Agreement shall, by express grant, implication, estoppel or otherwise, convey to either party any right, title, interest, or license in the inventions, patents, trademarks (including logos), technical data, computer software, or software documentation of the other party.

EHA and Duke-NUS retain equal rights to and ownership of any and all media (photos, video, audio recorded by the Duke-NUS as related to this Project) developed with respect to this Agreement and the implementation of the Project.

Any publication of media must credit EHA and Duke-NUS.

Intellectual property rights arising from the project will be co-owned by EHA and Duke-NUS as tenants in common in equal and undivided shares ("Joint Project IPR"). The Parties shall have rights to make joint applications for the protection of the Joint Project IPR and to determine the commercial exploitation of the same. Before any protection or commercialisation of any Joint Project IPR takes place, the Parties shall proceed diligently to negotiate in good faith and agree on the terms and conditions for protection and commercialisation of any Joint Project IPR in a definitive written agreement.

Further, the Duke-NUS shall also adhere to EHA's other IP-sharing agreements insofar as they relate to data and products derived from work described in this Agreement, e.g. sharing agreements with local in-country partners including but not limited to government agencies, NGOs and universities. EHA may provide details of data sharing agreements with other parties upon request from the Duke-NUS.

Each Party shall comply with all laws and subsidiary legislation applicable to privacy and data protection in its country with regard to any and all personal data collected, obtained and/or held by it in connection with this Agreement.

The provisions of this paragraph (b) shall survive the expiration or earlier termination of this Agreement.

VII. PUBLICATION REVIEW AND APPROVAL

The parties agree that prior to the publication of any written work made possible by Agreement, or involving data or information gained in whole or in part from research or activity conducted under this Agreement, a copy of such work must be shared for pre-publication review and recommendations for revision. The parties are under no obligation to make any changes to the requested publication, except to delete Confidential Information and intellectual property requiring protection. The parties will respond with their recommendations for revision within thirty (30) days of receipt of the proposed publication. All published work must recognize EHA and Duke-NUS, and as required by the parent award NIAID in the acknowledgements. Written work that is not approved by EHA may not recognize EHA or NIAID in the acknowledgements.

VIII. EVALUATION OF THE AGREEMENT

At its own expense, EHA may monitor and conduct an evaluation of operations under this Agreement. Evaluation may include visits to Duke-NUS by representatives of EHA to observe and discuss the funded project.

IX. DISBURSEMENT OF FUNDS

Unless otherwise stated below, contract funds shall be disbursed by EHA based on the following criteria:

1. Duke-NUS shall submit a valid invoice to EHA indicating the services performed, as well as the time covered by the invoice. Duke-NUS should attach all supporting documentation needed to substantiate any out-of-pocket expenses.
2. Duke-NUS must provide official invoices as certification that the services rendered, and all expenses incurred have been pursuant to the scope of service contained in this Agreement.
3. EHA will invoice the funding source for the value of the invoice and remit the funds to Duke-NUS in a timely manner.
4. EHA reserves the right to delay payment of any funds due to insufficient documentation submitted by Duke-NUS.

5. Duke-NUS acknowledges that all invoices must be submitted to EHA no more than 45-days after the end of this Agreement. Invoices submitted after these periods may not be invoiced to the funding source and may not be paid to Duke-NUS.

Unless otherwise directed, EHA shall remit US funds by bank wire made payable to Duke-NUS. EHA shall follow the banking details provided on the invoice to make payment to Duke-NUS.

X. SUBCONTRACTOR 'S FINANCIAL RESPONSIBILITIES

As applicable, Duke-NUS Medical School agrees to adhere to all requirements contained in OMB Circular A-136 during the term of this Agreement. Duke-NUS Medical School acknowledges responsibility for A-136 Federal Audit requirements for funds received under this Agreement and will provide EHA a copy of their most current audit report as may be provided. Duke-NUS agrees that all overhead charged to this grant shall not exceed the amount permitted by the applicable or *de minimus* federal indirect cost rate in effect during the performance period. If applicable, Duke-NUS shall provide EHA with a copy of their most current US federal indirect cost rate agreement. If requested, Duke-NUS will provide EHA with a copy of a most current audit report. Duke-NUS agrees to keep systematic records of all expenditures relating to this Agreement. A quarterly financial report is required along with a signed invoice for services and reimbursement of expenses. Documentation of expenses, consisting of bills, invoices, receipts, logbooks (acceptable only for gasoline for cars and boats), etc., must be retained by Duke-NUS for five (5) years after the end or early termination of the Agreement period and must be available for inspection by representatives of EHA at any time during this period; provided that EHA provides reasonable prior notice to Duke-NUS and all such documentation disclosed to EHA shall be deemed as Duke-NUS' Confidential Information. EHA may, at its own expense, examine, audit, or have audited the records of Duke-NUS insofar as they relate to activities supported by this Agreement.

Duke-NUS budget records must be itemized in the following categories, as applicable:

1. Salary or stipend – detailed by person, rate, date, and amount. Pay stubs or signed acknowledgement of receipt for stipend may be requested as documentation for personnel expenses.
2. Fringe – as applicable, same as above
3. Equipment – an original or copy (when original is not available) of all receipts or purchase orders must be provided with financial reports for all capital equipment items (items costing \$5,000 or above). **Please note that capital equipment purchases require EHA approval.**
4. Domestic Travel – trip cost indicating departure/arrival dates, air/car/train/boat costs, and accommodation cost per person along with all boarding passes and other receipts (including receipt for lodging). For vehicle –associated costs, mileage to be indicated along with any associated costs: driver, repairs, insurance, etc. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both Subrecipient and EHA or responsible party. **Includes meals in transit.** All domestic travel lodging, meal, and incidental expenses must be within United States Government per diem rates.
5. International Travel – same as above. **Please note that international travel requires EHA approval.**
6. Purchased services (e.g., field asst., boat hire) – detailed at the level above.
7. Diagnostics – cost of testing, incl. lab disposables, labor (if not included above), use of equipment, etc.
8. Field Supplies – receipts must be supplied for all items.

9. Other – any other items that do not fall into the categories above with same level of detail

Duke-NUS Medical School shall submit detailed invoices to EHA detailing actual expenditures compared to the approved budget or contract total. Invoices are subject to review and approval of EHA's principal investigator and/or grants and programs manager who shall certify that all expenses are in conformity with the award.

EHA reserves the right to request documentation of all costs incurred as part of its normal practices in the use of federal funds.

XI. PURCHASE OF CAPITAL EQUIPMENT

For all capital equipment (items valued over US \$5,000 and with a useful life of one year or more) purchased under this agreement, a completed Capital Equipment Inventory must be submitted to EHA at the end of the Term (including any approved extensions). Duke-NUS Medical School agrees to use this equipment for other projects or programs only with EHA approval and so long as such use does not interfere with the Project work for which it was originally acquired. Duke-NUS also agrees to maintain it in proper working order.

All supply purchases over \$3,000 for a single item require the prior approval of EHA.

XII. UNUSED FUNDS

Duke-NUS Medical School agrees to return to EHA at the conclusion of the Agreement period all funds that have not been used to complete the project, excluding the indirect funds. Duke-NUS may not use funds after the end of the Agreement period without the written consent of EHA unless both Duke-NUS and EHA agree to an extension of this Agreement and both parties sign this in the form of an amendment.

XIII. REVOCATION AND REVERSION

With 30 day's notification and if EHA determines at its sole discretion that continuation of the project is no longer its best interests, EHA retains the right to terminate this Agreement; provided that EHA shall pay Duke-NUS for all approved expenses prior to the effective date of termination. EHA may require Duke-NUS to refund to EHA funds that it reasonably considers have been misused or misappropriated. Circumstances that may cause EHA to revoke the Agreement or demand repayment include, but are not limited to:

1. Material changes in the purpose, character, or method of operation of the Agreement without prior written consent from both parties;
2. Any required report and supporting documentation is found by EHA to be inaccurate in any material respect;
3. EHA determines that Duke-NUS Medical School has failed to perform any of the terms of this Agreement within thirty (30) days written notice; and
4. Duke-NUS in the judgment of EHA has misused EHA's name or otherwise harmed the reputation of EHA.

XIV. INSURANCE AND LIABILITY

By accepting the terms and conditions of this agreement, Duke-NUS also accepts full responsibility for all insurance needs, such as medical, vehicle, evacuation, etc. for its personnel involved in the project, unless a separate arrangement has been made between EHA and Duke-NUS. By signing this Agreement, Duke-NUS shall be responsible for the conduct of its personnel in performing the project.

XV. ADDITIONAL SUPPORT

In making this Agreement, EHA assumes no obligation to provide any other additional support to Duke-NUS.

XVI. NOTICE

All correspondence and project reports should include the reference log number and follow the reporting guidelines described above. Copies should be directed to:

Dr. Aleksei Chmura
EcoHealth Alliance
520 Eighth Avenue, Suite 1200
New York, NY 10018

(t) (b) (6)
(e) (b) (6)

XVII. WARRANTY AND LIABILITY

Duke-NUS Medical School and EcoHealth Alliance hereby mutually agree to indemnify and hold each other, respectively, and each other's affiliates, officers, employees, successors and assigns, harmless from and against claims, demands, actions, proceedings, investigation and right of action, including reasonable attorneys' fees and costs, whether action is instituted or not and, if instituted, whether at any trial or appellate level, whether raised by the other party or a third party, arising from the intentional acts, errors or omissions of Duke-NUS Medical School or EcoHealth Alliance.

For the avoidance of doubt, EHA agrees to indemnify and hold the Duke-NUS and successors harmless from and against any claim arising from and relating to the funds flowing into Singapore for the purposes of and in connection with this Agreement, provided that the Duke-NUS shall remain liable for tax obligations, if any.

All intellectual property rights, findings, project results, reports and materials provided by any Party under this Agreement are provided "as-is" and without any representation or warranty, express or implied, including, without limitation, any implied warranty of merchantability or fitness for any particular purpose, or any warranty that any use thereof will not infringe or violate any patent or other proprietary rights of any other person.

Nothing in this Agreement shall limit or exclude the liability of a Party in respect of:

- (a) death or personal injury caused by such Party's negligence; and
- (b) any liability which arose in the course of such Party's performance of this Agreement and which cannot be limited or excluded by law.

To the extent permitted by law, neither Party is liable to the other Party for any loss of profits or revenue, loss of goodwill or reputation, loss of production, or business interruption costs, any exemplary or punitive damages, or any type of indirect, consequential, special or incidental loss, damage or expense arising out of or relating to this Agreement regardless of the form of action, whether in contract, tort (including negligence) or otherwise, even if that Party has been advised of the possibility of the same.

The maximum aggregate liability of each Party to the other Party for any claims (including all reasonable legal costs and expenses on a full indemnity basis) arising from any breach or acts or omission in the performance of this Agreement, or arising out of the subject matter of this Agreement, regardless of the form of action, whether in contract, tort (including negligence) or otherwise, shall not exceed USD 108,000.

The provisions of this Clause XVII shall survive the early termination or expiration of this Agreement.

XVIII. PARTIAL INVALIDITY

If any term or provision of this Agreement to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this Agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

XIX. Biosafety

Laboratory

- EHA will review and evaluate the lab biosafety at project research sites, provide annual trainings, and conduct laboratory inspections as needed.
- All partner laboratories are required to submit applicable approval documents from their Institutional Biosafety Committees (IBC) to EHA for review following the execution of this Agreement, to ensure the compliance with *NIH and CDC guidelines* (link below) or comparable. No laboratory work may be conducted without confirmed receipt by EHA of these documents.
- Biosafety review and evaluation for all partner laboratories will be conducted following the *NIH and CDC Guidelines* (link below) or comparable.
- Any accident or concern related to work funded under this award must be reported to EHA and your Institutional Biosafety Committee (IBC) within 72 hours and will be investigated by an independent auditor. Work will be suspended immediately until an investigation is completed to the satisfaction of EHA.

NIH Guidelines: https://www.dropbox.com/s/sa0g11uyfrnl39t/NIH_Guidelines%202019.pdf?dl=0

CDC Laboratory Biosafety Manual:

<https://www.dropbox.com/s/bp1g59x6bq18ehl/CDC%20Biosafety%20Guidelines.pdf?dl=0>

Field

- EHA will have oversight of the field work biosafety, provide training, and enforcing biosafety regulations in the field for all work with animals.
- In-country Institutional Animal Care and use Committee (IACUC) and Institutional Review Board (IRB) approvals to work with wild animals and human subjects are required to be submitted to EHA following execution of this Agreement. No fieldwork may be conducted without confirmed receipt by EHA of these approvals.

- Review and approval will be conducted globally and locally with the IACUCs and IRBs.
- Field biosafety trainings will be conducted every other year or more frequently as necessary. Online refresher trainings will be made available every year for all members of teams working with wild animals, humans, and relevant specimens.

XX. OTHER PROVISIONS

This Agreement may not be transferred or assigned by either party without the prior written consent of the other, and any breach of this prohibition will deem the Agreement null and void.

Both parties agree that either party may terminate this Agreement following confirmation of a 30 day notice to the other party. EHA will reimburse Duke-NUS for all approved costs incurred up to the point of termination.

Each party represents and warrants that its authorized agent(s) have duly executed this Agreement on its behalf.

This Agreement constitutes a single integrated contract expressing the entire agreement of the parties hereto. There are no other agreements, written or oral, express, or implied, between the parties hereto, concerning the subject matter hereof, except the agreements set forth in this Agreement. Any amendment to this Agreement is effective only if set forth in writing and signed by both parties.

Each Party shall, without the prior written consent of the other Party, not:

- (a) use the name, logo, symbol or mark of the other Party for any purpose; and
- (b) publish any press releases, publicity, advertisements or marketing materials in any medium concerning all or any part of the discussions under the Project or this Agreement.

Notwithstanding the generality of the above, the Parties may notify third parties of the fact that this Agreement is in effect but not the terms of this Agreement.

This Agreement shall be governed by and construed in accordance with the laws of the state of New York of the United States of America, for as far as it does not conflict with the laws of the Singapore or obliges Duke-NUS to perform acts that may be regarded as unlawful in Singapore law.

Any dispute or claim arising from or in connection with this Agreement (the "**Dispute**"), including any question regarding its existence, validity, breach or termination, shall first be referred to authorised representatives of the Parties at the least senior level for amicable settlement through good faith negotiations. If the Dispute cannot be so settled within thirty (30) days of referral, the Dispute shall be submitted to the Parties' respective authorised senior management representatives for resolution within thirty (30) days of submission. Any Dispute which cannot be so resolved shall be finally resolved by arbitration administered by the Singapore International Arbitration Centre (the "SIAC") in accordance with the Arbitration Rules of the SIAC for the time being in force, which rules are deemed to be incorporated by reference in this Clause. The seat of the arbitration shall be Singapore. The tribunal shall consist of one (1) arbitrator. The language of the arbitration shall be English.

The provisions in this Clause XX shall survive the early termination or expiration of this Agreement.

(b) (6)

Dr. Peter Dászak
President, EcoHealth Alliance

27 July 2021

DATE

(b) (6)

Professor Thomas Coffman
Dean, Duke-NUS Medical School

19 August 2021

DATE

Attachment A: FFATA

The Federal Funding Accountability and Transparency Act (FFATA) was signed on September 26, 2006 and requires information on federal awards (federal financial assistance and expenditures) be made available to the public via a single, searchable website, which is www.USASpending.gov. All contractors receiving funds from EHA are required to provide the following information as a condition of receiving funds.

Please answer the following questions Yes or No.

- a. In the previous tax year, was your company's gross income from all sources above \$300,000?

Yes No

- b. In Duke-NUS's business or organization's preceding completed fiscal year, did its business or organization (the legal entity to which the DUNS number it provided belongs) receive (1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; **and** (2) \$25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

Yes No

- c. Does the public have access to information about the compensation of the executives in Duke-NUS's business or organization (the legal entity to which the DUNS number it provided belongs) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Yes No

- d. Does your business or organization maintain an active registration in the System for Award Management (www.SAM.gov)?

Yes No

Attachment B: Scope of Work

Under the supervisor and coordination of Co-Investigator Dr. Linfa Wang, working close with the post-doctoral associate, the work will be implemented at the Duke-NUS Medical School to conduct studies on the epidemiology, characterization, and pathogenesis of a series of coronaviruses (CoVs), paramyxoviruses (PMVs – particularly Henipaviruses) and filoviruses (FVs), including:

- Develop molecular and serology platforms for lab diagnostics of collected human and animal samples, including the generation of reagents for novel assays;
- Characterize newly discovered viruses of interest in collaboration with in-country teams;
- Provide training to Thailand and Malaysia laboratory staff for technology transfer and serological and molecular protocols;
- Collaborate with the EID-SEARCH global team for data analysis, interpretation and contribute to scientific publications as agreed;
- Participate calls with the CREID network, and communicate regularly with EID-SEARCH global team at EHA as agreed;
- Contribute to the annual report and other programmatic report requested by NIAID;
- Represent EID-SEARCH on planning and other relevant meetings;
- Complete quarterly invoices and/or financial reports

Attachment C: Project Budget

| | 17 Jun 20 - 31 May 22 |
|------------------------------|-----------------------|
| EOM | USD |
| Research fellow | (b) (6), (b) (4) |
| Sub-total (EOM) | |
| | |
| OOE | |
| Materials and Supplies | |
| Others - Scientific services | |
| Foreign Travel Costs | |
| Sub-total (OOE) | |
| | |
| Total direct costs | 100,006.00 |
| 8% F&A | 8,000.48 |
| Total project costs | 108,006.48 |



Hongying Li <(b) (6)>

1U01AI151797: Newly Established CREID EID-SEARCH Subaward Agreement with Duke-NUS Medical School

2 messages

Hongying Li <(b) (6)> Thu, Aug 19, 2021 at 11:21 AM
To: Shaun Gratton <(b) (6)> "Patterson, Jean (NIH/NIAID) [E]" <(b) (6)>
Cc: Aleksei Chmura <(b) (6)> Peter Daszak <(b) (6)>

Dear Jean and Shaun,

Hope all is well.

As per our revised notice of award from 28 August 2020, attached please find a PDF of our newly established (19th August 2021) subaward agreement with Duke-NUS Medical School under this award (1U01AI151797), including a description of the biosafety monitoring plan.

Please confirm receipt and let us know if you have any questions about it. Thank you very much!

Best regards,
Hongying

Hongying Li, MPH
Senior Program Coordinator & Research Scientist

EcoHealth Alliance
520 Eighth Avenue, Ste. 1200
New York, NY 10018

(b) (6) (mobile)
www.ecohealthalliance.org

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation.

Duke NUS EID-SEARCH CONTRACT Y1-2_Signed.pdf
434K

Gratton, Shaun (NIH/NIAID) [E] <(b) (6)> Thu, Aug 19, 2021 at 11:33 AM
To: Hongying Li <(b) (6)> "Patterson, Jean (NIH/NIAID) [E]" <(b) (6)>
Cc: Aleksei Chmura <(b) (6)> Peter Daszak <(b) (6)> "Woodson, Sara (NIH/NIAID) [E]" <(b) (6)>

Thank you Hongying,

This email is to confirm receipt of the Duke-NUS Subaward Agreement.

Thank you,

--

Shaun Gratton

Grants Management Program

Division of Extramural Activities

National Institute of Allergy and Infectious Diseases

National Institutes of Health

5601 Fishers Lane, Rm. 4G48

Rockville, Maryland 20852

Telephone Number: (b) (6)

Email Address: (b) (6)

Note:

Effective January 1, 2017, NIH closeout documentation policy has changed (see [NOT-OD-17-022](#)). NIH is no longer accepting Final Progress Reports (FPR). Grantees must now report final project outcomes using the new F-RPPR. For instruction on how to submit the new F-RPPR please see instructions on the [NIH RPPR Page](#).

Disclaimer:

The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institutes of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statement made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives.

[Quoted text hidden]

Disclaimer

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Risk Factors Based on the Subrecipient Organization:

| ## | Category | Lower Risk (1) | Medium Risk (2) | Higher Risk (3) |
|----|---|--|--|---|
| 1 | Foreign vs. Domestic | U.S. based | Foreign location with stable government and financial systems | Foreign location with unstable government or financial systems or restricted location |
| 2 | Subrecipient Organization Type | University or non-profit subject to federal audit requirements | Non-profit not subject to federal audit requirements | Industry or other for-profit organization not subject to federal or other audit regulations |
| 3 | Maturity of Organization | Mature (more than 10 years) | Mature, but not research oriented | Start-up, no fiscal controls in place yet |
| 4 | Subrecipient's prior experience with similar subawards or awarding agency | Subrecipient has prior experience with the same/similar subawards. Subrecipient also receives awards directly from the awarding agency | Subrecipient does not have prior experience with type of award, or Subrecipient does not receive Federal awards or is unfamiliar with awarding agency's requirements | Subrecipient does not have prior experience with the type of research or programmatic deliverables required by subaward |
| 5 | EHA's prior experience with Subrecipient | Previous positive experience as EHA subrecipient | Previous experience as EHA subrecipient but may have some minor concerns | New subrecipient or previous negative experience |
| 6 | Adequacy of Facilities | Work occurs in adequate, established space | Work occurs in adequate, but newly established space | Subrecipient's resources are inadequate |
| 7 | Audit Results & Accounting / Procurement Systems | Has annual audit with unqualified opinion | Has annual third-party financial audit. Subrecipient has a new or substantially changed systems or personnel for project administration | Has not had a financial audit by a 3rd party or current audit has material weaknesses, reportable conditions or findings. Responses to the Financial Status Questionnaire are questionable or indicate a lack of policies, separation of duties, or system controls |

Risk Factors Based on the Subaward:

| ## | Category | Lower Risk (1) | Medium Risk (2) | Higher Risk (3) |
|----|---|--|--|--|
| 8 | Amount/Percentage Passed-through | Lower funding levels or percentage of total funds allocated to subrecipient (e.g. <\$100k) | Funding allocated to subrecipient is a large part of the total award | Funding level>\$500K or >49% of award |
| 9 | Scope of Work & Project Deliverables | Easily met objectives (e.g. reports). Progress based on milestones or observable outcomes | Subrecipient not meeting deliverables, resulting in a change in project scope | Deliverables necessary in order to achieve project success. No reporting until end of the project, no measurable or observable milestones or outcomes. |
| 10 | Additional Approvals | No compliance issues involved | Subrecipient has protocols in place to meet compliance requirements | Compliance requirements are in place but subrecipient does not have protocols approve/monitor the requirements. Project involves export-controlled material, data, or technical reports. |
| 11 | Relationship Between EHA PI and Subrecipient PI | Subrecipient PI is a familiar collaborator | Subrecipient PI is an established researcher, but has no prior direct relationship | No previous collaboration or relationship |
| 12 | Subrecipient familiarity with Award Mechanism | Subrecipient is familiar with award mechanism (e.g. contract, grant) and prime sponsor | Subrecipient is unfamiliar with award mechanism (e.g. contract, grant) or with prime sponsor | Subrecipient is unfamiliar with award mechanism (e.g. contract, grant) and prime sponsor |
| 13 | Cost Sharing | Subrecipient has not made commitment to share costs | Subrecipient has committed to fund project costs not paid by the award or subaward | Subrecipient has committed to fund substantial project costs not paid by the award or subaward |
| 14 | Rate of Subrecipient Spending on Award | Pace of spending is consistent with budgeted amounts per year | Pace of spending slightly greater or less than budgeted amount per year | Spending far outpaces or is severely below that which was in the submitted budget |

EHA employs a risk-based approach to subrecipient monitoring, focusing more frequent and robust monitoring efforts on those subrecipients who are deemed to pose an elevated risk for potential non-compliance.

The Risk Assessment Matrix:

The Risk Assessment Matrix is a tool designed for departments to assess a subrecipient's risk and help determine the level of monitoring required. The examples in the matrix are intended as

| |
|--|
| <p>Explanation of risk levels:</p> <ul style="list-style-type: none"> HIGH (Score: 34-42) – The risk associated with engaging the subrecipient could compromise the project's goals, objectives, or compliance the prime sponsor's terms and conditions. MEDIUM (Score: 24-33) – The risk associated with engaging the subrecipient could result in EHA operating inefficiently and/or expending unplanned resources to meet the project's LOW (Score: 14-23) – The risk associated with engaging the subrecipient has no anticipated measurable effect on the achievement of the project's goals and objectives. |
|--|

Threshold Questions: A subaward cannot be issued if the agreement meets any the following requirements:

- The subrecipient is debarred or suspended
- The subrecipient has a compliant conflict of interest policy in place, if required by the sponsor/award
- Financial management and accounting systems are inadequate to account for award funds in accordance with federal requirements

Develop monitoring policies for each Risk categories

- For Low Risk Subrecipients conduct a Semi-Annual Review Process based on the corresponding check list
- For Medium Risk Subrecipients conduct a Quarterly Review Process based on the corresponding check list
- For High Risk Subrecipients conduct a Monthly Review Process based on the corresponding check list



RISK ASSESSMENT MATRIX

Name of the Subrecipient: Duke-NUS Medical School

Funding Source: NIH/NIAID

Prime Award Number: 1U01AI151797-01

Subrecipient Awarding Period: 17 June 2020 - 31 May 2021

Threshold Questions: A subaward cannot be issued if the agreement meets any the following requirements:

| | Yes/No |
|---|--------|
| The subrecipient is debarred or suspended | No |
| The subrecipient doesn't have a compliant conflict of interest policy in place, if required by the sponsor/award | No |
| Financial management and accounting systems are inadequate to account for award funds in accordance with federal requirements | No |

If all Threshold Questions answered 'NO', review the Risk assessment Matrix below:

Risk Factors Based on the Subrecipient Organization:

| ## | Category | Lower Risk (1) Medium (2) High Risk (3) |
|----|---|---|
| 1 | Foreign vs. Domestic | 2 |
| 2 | Subrecipient Organization Type | 1 |
| 3 | Maturity of Organization | 1 |
| 4 | Subrecipient's prior experience with similar subawards or awarding agency | 1 |
| 5 | EHA's prior experience with Subrecipient | 1 |
| 6 | Adequacy of Facilities | 1 |
| 7 | Audit Results & Accounting / Procurement Systems | 1 |

Risk Factors Based on the Subaward:

| ## | Category | Lower Risk (1) Medium (2) High Risk (3) |
|----|---|---|
| 8 | Amount/Percentage Passed-through | 2 |
| 9 | Scope of Work & Project Deliverables | 1 |
| 10 | Additional Approvals | 1 |
| 11 | Relationship Between EHA PI and Subrecipient PI | 1 |
| 12 | Subrecipient familiarity with Award Mechanism | 1 |
| 13 | Cost Sharing | 1 |
| 14 | Rate of Subrecipient Spending on Award | 1 |

TOTAL SCORE 16

LOW

Reviewed and Approved by (b) (6) 14-Jun-20
 _____ Date
 Finance Representative
 Name: Armine Arustamyan
 Title: Chief Financial Officer

(b) (6) 14-Jun-20
 _____ Date
 Program Representative
 Name: Aleksei Chmura
 Title: Chief of Staff

FY 2019

FULL FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

(INCORPORATED IN SINGAPORE. REGISTRATION NUMBER: 200604346E)

FULL FINANCIAL STATEMENTS
FOR THE FINANCIAL YEAR ENDED
31 MARCH 2020

NATIONAL UNIVERSITY OF SINGAPORE

21 Lower Kent Ridge Road
Singapore 119077
Tel: (65) 6516 6666
nus.edu.sg



USRTK FOIA #62623 - 2026-03-06
000948

TRUSTEES' STATEMENT AND CONSOLIDATED FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

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NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

TRUSTEES' STATEMENT

The Trustees are pleased to present their statement to the members together with the audited consolidated financial statements of the National University of Singapore ("the Company") and its subsidiaries (collectively, "the Group") and statement of financial position, statement of comprehensive income and statement of changes in funds and reserves of the Company, as of and for the financial year ended 31 March 2020.

OPINION OF THE TRUSTEES

In the opinion of the Trustees,

- a) the consolidated financial statements of the Group and the statement of financial position, statement of comprehensive income and statement of changes in funds and reserves of the Company are drawn up so as to give a true and fair view of the financial position of the Group and the Company as at 31 March 2020, and of the consolidated financial performance, consolidated changes in funds and reserves and consolidated cash flows of the Group and the financial performance and changes in funds and reserves of the Company for the financial year then ended; and
- b) at the date of this statement there are reasonable grounds to believe that the Company will be able to pay its debts when they fall due.

TRUSTEES

The Trustees of the Company in office at the date of this report are:

| | |
|----------------------------|---|
| Mr Hsieh Fu Hua – Chairman | Mr Andrew Lim Ming-Hui |
| Professor Tan Eng Chye | Mr Loh Chin Hua |
| Ambassador Chan Heng Chee | Mr Chaly Mah Chee Kheong |
| Dr Cheong Koon Hean | Mr Ng Wai King |
| Mr Goh Choon Phong | Ms Tan Hooi Ling |
| Mr Peter Ho Hak Ean | Mr Abdullah Tarmugi |
| Professor Ho Teck Hua | Ms Elaine Yew Wen Suen |
| Mr Lai Chung Han | Ms Chew Gek Khim <i>(Appointed on 1 April 2020)</i> |
| Mr Lee Ming San | Professor Timothy L. Killeen <i>(Appointed on 1 April 2020)</i> |
| Mr Michael Lien Jown Leam | Ms Jeanette Wong <i>(Appointed on 1 April 2020)</i> |

ARRANGEMENTS TO ENABLE TRUSTEES TO ACQUIRE SHARES AND DEBENTURES

Neither at the end of nor at any time during the financial year was the Company a party to any arrangement whose objects are, or one of whose object is, to enable the Trustees of the Company to acquire benefits by means of the acquisition of shares or debentures of the Company or any other body corporate.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

TRUSTEES' STATEMENT

TRUSTEES' INTERESTS IN SHARES OR DEBENTURES

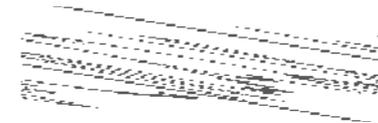
The Company is a public company limited by guarantee and does not have a share capital.

At the end of the financial year, the Trustees of the Company have no interest in the share capital (including any share options) and debentures of the Company and related corporations as recorded in the register of the directors' shareholdings kept by the Company under Section 164 of the Singapore Companies Act.

AUDITOR

Deloitte & Touche LLP have expressed their willingness to accept re-appointment as auditor.

On behalf of the Trustees


MR HSIEH FU HUA

Trustee

12 August 2020


PROFESSOR TAN ENG CHYE

Trustee

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF NATIONAL UNIVERSITY OF SINGAPORE

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS

Opinion

We have audited the accompanying financial statements of National University of Singapore ("the Company") and its subsidiaries (collectively, "the Group"), which comprise the statements of financial position of the Group and the Company as at 31 March 2020, the statements of comprehensive income and statements of changes in funds and reserves of the Group and the Company and consolidated statement of cash flows of the Group for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, as set out on pages 8 to 89.

In our opinion, the accompanying consolidated financial statements of the Group and the statement of financial position, statement of comprehensive income and statement of changes in funds and reserves of the Company are properly drawn up in accordance with the provisions of the Companies Act, Chapter 50 (the "Act"), the Charities Act, Chapter 37 and other relevant regulations (the "Charities Act and Regulations") and Financial Reporting Standards in Singapore ("FRSs") so as to give a true and fair view of the financial position of the Group and the Company as at 31 March 2020 and of the consolidated financial performance, consolidated changes in funds and reserves and consolidated cash flows of the Group and the financial performance and changes in funds and reserves of the Company for the year ended on that date.

Basis for Opinion

We conducted our audit in accordance with Singapore Standards on Auditing ("SSAs"). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Group in accordance with the Accounting and Corporate Regulatory Authority ("ACRA") *Code of Professional Conduct and Ethics for Public Accountants and Accounting Entities* (the "ACRA Code") together with the ethical requirements that are relevant to our audit of the financial statements in Singapore, and we have fulfilled our other ethical responsibilities in accordance with these requirements and the ACRA Code. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Information other than the Financial Statements and Auditor's Report Thereon

Management is responsible for other information. The other information comprises the Trustees' statement but does not include the financial statements and our auditor's report thereon.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF NATIONAL UNIVERSITY OF SINGAPORE

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS *(cont'd)*

Responsibilities of Management and Trustees for the Financial Statements

Management is responsible for the preparation of the financial statements in accordance with the provisions of the Act, the Charities Act and Regulations, and FRSs, and for devising and maintaining a system of internal accounting controls sufficient to provide a reasonable assurance that assets are safeguarded against loss from unauthorised use or disposition; and transactions are properly authorised and that they are recorded as necessary to permit the preparation of true and fair financial statements and to maintain accountability of assets.

In preparing the financial statements, Management is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless Management either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The Trustees' responsibilities include overseeing the Group's financial reporting process.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with SSAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with SSAs, we exercise professional judgement and maintain professional scepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF NATIONAL UNIVERSITY OF SINGAPORE

REPORT ON THE AUDIT OF THE FINANCIAL STATEMENTS *(cont'd)*

Auditor's Responsibilities for the Audit of the Financial Statements *(cont'd)*

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with the Trustees regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Trustees with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

INDEPENDENT AUDITOR'S REPORT TO THE TRUSTEES OF NATIONAL UNIVERSITY OF SINGAPORE

REPORT ON OTHER LEGAL AND REGULATORY REQUIREMENTS

In our opinion, the accounting and other records required by the Act to be kept by the Company and by those subsidiary corporations incorporated in Singapore of which we are the auditors have been properly kept in accordance with the provisions of the Act and the Charities Act and Regulations.

During the course of our audit, nothing has come to our attention that causes us to believe that during the year:

- the Company has not used the donation monies in accordance with its objectives as required under Regulation 11 of the Charities (Institutions of a Public Character) Regulations; and
- the Company has not complied with the requirements of Regulation 15 (Fund-raising expenses) of the Charities (Institutions of a Public Character) Regulations.



[DELOITTE & TOUCHE LLP]

Public Accountants and
Chartered Accountants

Singapore
12 August 2020

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION

AS AT 31 MARCH 2020

| | Note | GROUP | | COMPANY | |
|---|------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | 31 March 2020 S\$'000 | 31 March 2019 S\$'000 | 31 March 2020 S\$'000 | 31 March 2019 S\$'000 |
| NON-CURRENT ASSETS | | | | | |
| Subsidiary companies | 5 | – | – | 128 | 128 |
| Associated companies | 6 | 160,335 | 139,763 | 65,290 | 66,118 |
| Fixed assets | 8 | 3,186,923 | 3,453,261 | 3,184,911 | 3,451,062 |
| Right-of-use assets | 9 | 298,174 | – | 298,174 | – |
| Investment properties | 10 | 45,874 | 44,869 | 45,874 | 44,869 |
| Intangible assets | 11 | 11,533 | 10,652 | 11,533 | 10,652 |
| Investments at fair value through other comprehensive income (FVTOCI) | 12 | 2,204 | 5,303 | 1,596 | 2,673 |
| Student loans | 15 | 3,139 | 3,854 | 3,139 | 3,854 |
| Long-term loan to subsidiary company | 16 | – | – | 5,000 | – |
| Prepayments | 18 | 3,129 | 1,136 | 3,129 | 1,136 |
| Total Non-Current Assets | | 3,711,311 | 3,658,838 | 3,618,774 | 3,580,492 |
| CURRENT ASSETS | | | | | |
| Student loans | 15 | 1,745 | 2,078 | 1,745 | 2,078 |
| Debtors | 17 | 685,212 | 611,221 | 676,246 | 606,037 |
| Consumable stores | | 509 | 535 | 307 | 287 |
| Deposits and prepayments | 18 | 37,037 | 96,256 | 36,512 | 95,769 |
| Amounts owing from subsidiary companies | 16 | – | – | 4 | 880 |
| Investments at fair value through income or expenditure (FVTIE) | 13 | 10,059,710 | 9,647,005 | 10,059,710 | 9,647,005 |
| Derivative financial instruments | 14 | 6,888 | 3,137 | 6,888 | 3,137 |
| Cash and cash equivalents | 19 | 169,726 | 160,579 | 136,246 | 136,361 |
| Total Current Assets | | 10,960,827 | 10,520,811 | 10,917,658 | 10,491,554 |
| TOTAL ASSETS | | 14,672,138 | 14,179,649 | 14,536,432 | 14,072,046 |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

STATEMENTS OF FINANCIAL POSITION

AS AT 31 MARCH 2020

| | Note | GROUP | | COMPANY | |
|---|------|--------------------------|--------------------------|--------------------------|--------------------------|
| | | 31 March 2020 S\$'000 | 31 March 2019 S\$'000 | 31 March 2020 S\$'000 | 31 March 2019 S\$'000 |
| CURRENT LIABILITIES | | | | | |
| Creditors and accrued expenses | 20a | 335,395 | 284,210 | 333,108 | 281,729 |
| Provisions for employee leave liability | 20b | 118,840 | 107,832 | 116,066 | 105,287 |
| Lease liabilities | 21 | 21,404 | – | 21,404 | – |
| Grants received in advance | 22 | 359,384 | 310,383 | 357,975 | 308,765 |
| Sinking fund | 22 | 37,044 | 45,023 | 37,044 | 45,023 |
| Deferred tuition and other fees | | 87,686 | 91,448 | 87,654 | 91,394 |
| Derivative financial instruments | 14 | 90,211 | 11,710 | 90,211 | 11,710 |
| Amounts owing to subsidiary companies | 16 | – | – | 28,294 | 28,031 |
| Borrowings | 23 | 416,722 | 270,000 | 416,722 | 270,000 |
| Total Current Liabilities | | 1,466,686 | 1,120,606 | 1,488,478 | 1,141,939 |
| NON-CURRENT LIABILITIES | | | | | |
| Borrowings | 23 | 593,176 | 750,000 | 593,176 | 750,000 |
| Lease liabilities | 21 | 38,541 | – | 38,541 | – |
| Deferred capital grants | 24 | 1,715,158 | 1,778,151 | 1,713,163 | 1,776,011 |
| Sinking fund | 22 | 88,840 | 54,271 | 88,840 | 54,271 |
| Total Non-Current Liabilities | | 2,435,715 | 2,582,422 | 2,433,720 | 2,580,282 |
| TOTAL LIABILITIES | | 3,902,401 | 3,703,028 | 3,922,198 | 3,722,221 |
| NET ASSETS | | 10,769,737 | 10,476,621 | 10,614,234 | 10,349,825 |
| FUNDS AND RESERVES | | | | | |
| ACCUMULATED SURPLUS | | | | | |
| – Designated General Funds | 25 | 3,225,908 | 3,105,324 | 3,091,027 | 3,000,876 |
| – Other Restricted Funds | 25 | 1,040,792 | 954,981 | 1,040,792 | 954,981 |
| | | 4,266,700 | 4,060,305 | 4,131,819 | 3,955,857 |
| Endowment Funds | 26 | 6,466,821 | 6,375,282 | 6,442,704 | 6,353,450 |
| Fair Value Reserve | 25 | (5,304) | (476) | (1,752) | (945) |
| Revaluation Reserve | 25 | 41,463 | 41,463 | 41,463 | 41,463 |
| Translation Reserve | 25 | 57 | 47 | – | – |
| TOTAL FUNDS AND RESERVES | | 10,769,737 | 10,476,621 | 10,614,234 | 10,349,825 |
| Funds managed on behalf of the Government Ministry | 27 | 307,411 | 305,669 | 307,411 | 305,669 |
| Represented by: | | | | | |
| Net assets managed on behalf of the Government Ministry | 27 | 307,955 | 307,522 | 307,955 | 307,522 |
| Amount receivable from the Government Ministry | 27 | (544) | (1,853) | (544) | (1,853) |
| | | 307,411 | 305,669 | 307,411 | 305,669 |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

| GROUP | Note | DESIGNATED GENERAL FUNDS | | ENDOWMENT FUNDS | | OTHER RESTRICTED FUNDS | | TOTAL | |
|--|--------|--------------------------|----------------|------------------|----------------|------------------------|----------------|---------------|----------------|
| | | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| OPERATING INCOME | | | | | | | | | |
| Tuition and other fees | 29 | 548,572 | 524,082 | – | – | 7,421 | – | 555,993 | 524,082 |
| Less: Scholarship expenses | | (12,154) | (9,381) | (29,105) | (25,920) | (57,629) | (67,313) | (98,888) | (102,614) |
| Net tuition and other fees | | 536,418 | 514,701 | (29,105) | (25,920) | (50,208) | (67,313) | 457,105 | 421,468 |
| Other income | 30 | 249,044 | 239,812 | 9 | 31 | 152,224 | 216,898 | 401,277 | 456,741 |
| | | 785,462 | 754,513 | (29,096) | (25,889) | 102,016 | 149,585 | 858,382 | 878,209 |
| OPERATING EXPENDITURE | | | | | | | | | |
| Expenditure on manpower | 31 | 988,931 | 966,796 | 76,117 | 67,301 | 356,873 | 344,167 | 1,421,921 | 1,378,264 |
| Depreciation and amortisation expenditure | 8,9,11 | 96,977 | 78,169 | 5,053 | 4,564 | 268,868 | 269,305 | 370,898 | 352,038 |
| Other operating expenditure | | 527,628 | 517,794 | 89,566 | 65,911 | 325,181 | 325,346 | 942,375 | 909,051 |
| | | 1,613,536 | 1,562,759 | 170,736 | 137,776 | 950,922 | 938,818 | 2,735,194 | 2,639,353 |
| Operating deficit | | (828,074) | (808,246) | (199,832) | (163,665) | (848,906) | (789,233) | (1,876,812) | (1,761,144) |
| Net operating investment income | 33 | 27,851 | 77,344 | 245,607 | 213,117 | 12,505 | 22,790 | 285,963 | 313,251 |
| Share of results (net of tax) of associated companies | 6 | 17,887 | 2,608 | 2,285 | 5,133 | – | – | 20,172 | 7,741 |
| (Deficit) surplus before Grants | 34 | (782,336) | (728,294) | 48,060 | 54,585 | (836,401) | (766,443) | (1,570,677) | (1,440,152) |
| GRANTS | | | | | | | | | |
| Operating Grants: | | | | | | | | | |
| Government | 35a | 704,376 | 856,150 | – | – | 551,419 | 556,876 | 1,255,795 | 1,413,026 |
| Others | 35b | 36,079 | 19,778 | – | – | 219,032 | 199,173 | 255,111 | 218,951 |
| Deferred capital grants amortised | 24 | 46,084 | 25,742 | – | – | 265,745 | 264,930 | 311,829 | 290,672 |
| | | 786,539 | 901,670 | – | – | 1,036,196 | 1,020,979 | 1,822,735 | 1,922,649 |
| SURPLUS FOR THE YEAR BEFORE NON-OPERATING INVESTMENT (LOSS) INCOME AND INCOME TAX | | 4,203 | 173,376 | 48,060 | 54,585 | 199,795 | 254,536 | 252,058 | 482,497 |
| Non-operating investment (loss) income | 33 | – | – | (171,395) | 88,043 | – | – | (171,395) | 88,043 |
| Income tax | 36 | (28) | (6) | – | – | – | – | (28) | (6) |
| SURPLUS (DEFICIT) FOR THE YEAR | 37 | 4,175 | 173,370 | (123,335) | 142,628 | 199,795 | 254,536 | 80,635 | 570,534 |
| OTHER COMPREHENSIVE INCOME (LOSS): | | | | | | | | | |
| Items that will not be reclassified subsequently to income or expenditure: | | | | | | | | | |
| Change in fair value of equity instruments designated as FVTOCI | | – | – | (4,828) | (749) | – | – | (4,828) | (749) |
| Items that may be reclassified subsequently to income or expenditure: | | | | | | | | | |
| Exchange differences on translating foreign operations | | 10 | 14 | – | – | – | – | 10 | 14 |
| OTHER COMPREHENSIVE INCOME (LOSS) FOR THE YEAR, NET OF TAX | | 10 | 14 | (4,828) | (749) | – | – | (4,818) | (735) |
| TOTAL COMPREHENSIVE INCOME (LOSS) FOR THE YEAR | | 4,185 | 173,384 | (128,163) | 141,879 | 199,795 | 254,536 | 75,817 | 569,799 |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

STATEMENTS OF COMPREHENSIVE INCOME

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

| COMPANY | Note | DESIGNATED GENERAL FUNDS | | ENDOWMENT FUNDS | | OTHER RESTRICTED FUNDS | | TOTAL | |
|--|--------|--------------------------|----------------|------------------|----------------|------------------------|----------------|---------------|----------------|
| | | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| OPERATING INCOME | | | | | | | | | |
| Tuition and other fees | 29 | 542,661 | 518,519 | – | – | 7,421 | – | 550,082 | 518,519 |
| Less: Scholarship expenses | | (10,272) | (7,486) | (29,105) | (25,920) | (57,629) | (67,313) | (97,006) | (100,719) |
| Net tuition and other fees | | 532,389 | 511,033 | (29,105) | (25,920) | (50,208) | (67,313) | 453,076 | 417,800 |
| Other income | 30 | 244,144 | 236,112 | 9 | 31 | 152,224 | 216,898 | 396,377 | 453,041 |
| | | 776,533 | 747,145 | (29,096) | (25,889) | 102,016 | 149,585 | 849,453 | 870,841 |
| OPERATING EXPENDITURE | | | | | | | | | |
| Expenditure on manpower | 31 | 966,183 | 943,144 | 76,117 | 67,301 | 356,873 | 344,167 | 1,399,173 | 1,354,612 |
| Depreciation and amortisation expenditure | 8,9,11 | 96,424 | 77,564 | 5,053 | 4,564 | 268,868 | 269,305 | 370,345 | 351,433 |
| Other operating expenditure | | 525,233 | 522,928 | 89,566 | 65,911 | 325,181 | 325,346 | 939,980 | 914,185 |
| | | 1,587,840 | 1,543,636 | 170,736 | 137,776 | 950,922 | 938,818 | 2,709,498 | 2,620,230 |
| Operating deficit | | (811,307) | (796,491) | (199,832) | (163,665) | (848,906) | (789,233) | (1,860,045) | (1,749,389) |
| Net operating investment income | 33 | 25,526 | 75,788 | 245,607 | 213,117 | 12,505 | 22,790 | 283,638 | 311,695 |
| (Deficit) surplus before Grants | 34 | (785,781) | (720,703) | 45,775 | 49,452 | (836,401) | (766,443) | (1,576,407) | (1,437,694) |
| GRANTS | | | | | | | | | |
| Operating Grants: | | | | | | | | | |
| Government | 35a | 679,137 | 831,482 | – | – | 551,419 | 556,876 | 1,230,556 | 1,388,358 |
| Others | 35b | 34,810 | 18,602 | – | – | 219,032 | 199,173 | 253,842 | 217,775 |
| Deferred capital grants amortised | 24 | 45,576 | 25,186 | – | – | 265,745 | 264,930 | 311,321 | 290,116 |
| | | 759,523 | 875,270 | – | – | 1,036,196 | 1,020,979 | 1,795,719 | 1,896,249 |
| (DEFICIT) SURPLUS FOR THE YEAR BEFORE NON-OPERATING INVESTMENT (LOSS) INCOME AND INCOME TAX | | (26,258) | 154,567 | 45,775 | 49,452 | 199,795 | 254,536 | 219,312 | 458,555 |
| Non-operating investment (loss) income | 33 | – | – | (171,395) | 88,043 | – | – | (171,395) | 88,043 |
| Income tax | 36 | – | – | – | – | – | – | – | – |
| (DEFICIT) SURPLUS FOR THE YEAR | 37 | (26,258) | 154,567 | (125,620) | 137,495 | 199,795 | 254,536 | 47,917 | 546,598 |
| OTHER COMPREHENSIVE LOSS: | | | | | | | | | |
| Items that will not be reclassified subsequently to income or expenditure: | | | | | | | | | |
| Change in fair value of equity instruments designated as FVTOCI | | – | – | (807) | (1,208) | – | – | (807) | (1,208) |
| OTHER COMPREHENSIVE LOSS FOR THE YEAR, NET OF TAX | | – | – | (807) | (1,208) | – | – | (807) | (1,208) |
| TOTAL COMPREHENSIVE (LOSS) INCOME FOR THE YEAR | | (26,258) | 154,567 | (126,427) | 136,287 | 199,795 | 254,536 | 47,110 | 545,390 |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

STATEMENTS OF CHANGES IN FUNDS AND RESERVES FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

| GROUP | | Accumulated Surplus | | Endowment Funds | Fair Value Reserve | Revaluation Reserve | Translation Reserve | TOTAL |
|-------|---|--------------------------|------------------------|------------------|--------------------|---------------------|---------------------|-------------------|
| | | Designated General Funds | Other Restricted Funds | | | | | |
| Note | | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| | Balance at 31 March 2019 | 3,105,324 | 954,981 | 6,375,282 | (476) | 41,463 | 47 | 10,476,621 |
| | Surplus (deficit) for the year | 4,175 | 199,795 | (123,335) | - | - | - | 80,635 |
| | Other comprehensive (loss) income | - | - | - | (4,828) | - | 10 | (4,818) |
| | Total comprehensive income (loss) for the year | 4,175 | 199,795 | (123,335) | (4,828) | - | 10 | 75,817 |
| | Matching grants received/accrued | 26 | - | 186,781 | - | - | - | 186,781 |
| | Donations received | 26 | - | 30,215 | - | - | - | 30,215 |
| | Disposal of equity instruments designated as FVTOCI | | 303 | - | - | - | - | 303 |
| | Total recognised gains and losses for the year | | 4,478 | 199,795 | 93,661 | (4,828) | - | 293,116 |
| | Transfer between Designated General Funds, Endowment Funds and Other Restricted Funds | 28 | 116,106 | (113,984) | (2,122) | - | - | - |
| | Balance at 31 March 2020 | 3,225,908 | 1,040,792 | 6,466,821 | (5,304) | 41,463 | 57 | 10,769,737 |
| | Balance as at 31 March and 1 April 2018 (restated) | 2,833,978 | 792,594 | 5,917,074 | 273 | 41,463 | 33 | 9,585,415 |
| | Surplus for the year | 173,370 | 254,536 | 142,628 | - | - | - | 570,534 |
| | Other comprehensive (loss) income | - | - | - | (749) | - | 14 | (735) |
| | Total comprehensive income (loss) for the year | 173,370 | 254,536 | 142,628 | (749) | - | 14 | 569,799 |
| | Matching grants received/accrued | 26 | - | 270,623 | - | - | - | 270,623 |
| | Donations received | 26 | - | 47,387 | - | - | - | 47,387 |
| | Disposal of equity instruments designated as FVTOCI | | 3,397 | - | - | - | - | 3,397 |
| | Total recognised gains and losses for the year | | 176,767 | 254,536 | 460,638 | (749) | - | 891,206 |
| | Transfer between Designated General Funds, Endowment Funds and Other Restricted Funds | 28 | 94,579 | (92,149) | (2,430) | - | - | - |
| | Balance at 31 March 2019 | 3,105,324 | 954,981 | 6,375,282 | (476) | 41,463 | 47 | 10,476,621 |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

STATEMENTS OF CHANGES IN FUNDS AND RESERVES FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

| COMPANY | | Accumulated Surplus | | Endowment Funds | Fair Value Reserve | Revaluation Reserve | TOTAL | |
|---------|---|--------------------------|------------------------|------------------|--------------------|---------------------|-------------------|----------------|
| | | Designated General Funds | Other Restricted Funds | | | | | |
| Note | | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | |
| | Balance at 31 March 2019 | 3,000,876 | 954,981 | 6,353,450 | (945) | 41,463 | 10,349,825 | |
| | (Deficit) surplus for the year | (26,258) | 199,795 | (125,620) | - | - | 47,917 | |
| | Other comprehensive loss | - | - | - | (807) | - | (807) | |
| | Total comprehensive income (loss) for the year | (26,258) | 199,795 | (125,620) | (807) | - | 47,110 | |
| | Matching grants received/accrued | 26 | - | 186,781 | - | - | 186,781 | |
| | Donations received | 26 | - | 30,215 | - | - | 30,215 | |
| | Gain on equity instruments designated as FVTOCI | | 303 | - | - | - | 303 | |
| | Total recognised gains and losses for the year | | (25,955) | 199,795 | 91,376 | (807) | - | 264,409 |
| | Transfer between Designated General Funds, Endowment Funds and Other Restricted Funds | 28 | 116,106 | (113,984) | (2,122) | - | - | |
| | Balance at 31 March 2020 | 3,091,027 | 1,040,792 | 6,442,704 | (1,752) | 41,463 | 10,614,234 | |
| | Balance as at 31 March and 1 April 2018 (restated) | 2,751,730 | 792,594 | 5,900,375 | 263 | 41,463 | 9,486,425 | |
| | Surplus for the year | 154,567 | 254,536 | 137,495 | - | - | 546,598 | |
| | Other comprehensive loss | - | - | - | (1,208) | - | (1,208) | |
| | Total comprehensive income (loss) for the year | 154,567 | 254,536 | 137,495 | (1,208) | - | 545,390 | |
| | Matching grants received/accrued | 26 | - | 270,623 | - | - | 270,623 | |
| | Donations received | 26 | - | 47,387 | - | - | 47,387 | |
| | Total recognised gains and losses for the year | | 154,567 | 254,536 | 455,505 | (1,208) | - | 863,400 |
| | Transfer between Designated General Funds, Endowment Funds and Other Restricted Funds | 28 | 94,579 | (92,149) | (2,430) | - | - | |
| | Balance at 31 March 2019 | 3,000,876 | 954,981 | 6,353,450 | (945) | 41,463 | 10,349,825 | |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

CONSOLIDATED STATEMENT OF CASH FLOWS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

| | Note | 2020 S\$'000 | 2019 S\$'000 |
|---|------|--------------------|--------------------|
| Cash flows from operating activities: | | | |
| Deficit before Grants | | (1,570,677) | (1,440,152) |
| Adjustments for: | | | |
| Depreciation of fixed assets | 8 | 338,336 | 348,342 |
| Depreciation of right-of-use assets | 9 | 28,621 | – |
| Amortisation of intangible assets | 11 | 3,941 | 3,696 |
| Donated artifacts and other donated assets additions | 26 | (411) | (513) |
| Net operating investment income | 33 | (285,963) | (313,251) |
| Borrowing costs expensed off | 34 | 19,132 | 15,821 |
| Loss on disposal of fixed and intangible assets | 34 | 2,600 | 373 |
| Bad debts and loss allowance | 34 | 1,026 | 528 |
| Exchange differences arising on translation of foreign subsidiary | | 10 | 14 |
| Gain on revaluation of investment properties | 10 | (1,005) | (3,406) |
| Share of results (net of tax) of associated companies | | (20,172) | (7,741) |
| Operating cash flows before working capital changes | | (1,484,562) | (1,396,289) |
| Change in operating assets and liabilities: | | | |
| Increase in debtors, consumable stores, deposits and prepayments | | (4,415) | (76,257) |
| Increase (decrease) in creditors and accrued expenses, provisions and deferred tuition and other fees | | 67,927 | (8,307) |
| Cash used in operations | | (1,421,050) | (1,480,853) |
| Other grants received, net of refund | | 297,080 | 311,062 |
| Donations received for endowment funds | 26 | 30,215 | 47,387 |
| Student loans granted | | (1,052) | (1,076) |
| Student loans repaid | | 2,133 | 2,627 |
| Interest on lease liabilities | | (1,422) | – |
| Net cash outflow from operating activities | | (1,094,096) | (1,120,853) |
| Cash flows from investing activities: | | | |
| Payments for purchase of fixed assets | 8 | (327,303) | (326,651) |
| Payments for purchase of intangible assets | 11 | (4,867) | (3,996) |
| Proceeds from disposal of fixed assets and intangible assets | | 582 | 819 |
| Investment in associated companies | | (400) | (200) |
| Net purchase of investments | | (318,723) | (456,480) |
| Interest and dividend received | | 121,578 | 106,614 |
| Net foreign currency exchange gains | 33 | (28,816) | (3,108) |
| Net cash outflow from investing activities | | (557,949) | (683,002) |
| Cash flows from financing activities: | | | |
| Government grants received, net of refund | | 1,520,728 | 1,480,340 |
| Government grants received for endowment funds | | 188,505 | 353,239 |
| Net funds received (paid) for funds and net assets managed on behalf of the Government Ministry | | 1,997 | (1,060) |
| Repayment of lease liabilities | | (22,263) | – |
| Interest paid | | (17,673) | (16,371) |
| Proceeds from issue of fixed rate term loan | 23 | – | 270,000 |
| Fixed rate note repaid | 23 | (10,102) | (250,000) |
| Net cash inflow from financing activities | | 1,661,192 | 1,836,148 |
| Net increase in cash and cash equivalents | | 9,147 | 32,293 |
| Cash and cash equivalents at the beginning of the year | | 160,579 | 128,286 |
| Cash and cash equivalents at the end of the year | 19 | 169,726 | 160,579 |

The accompanying notes form an integral part of these financial statements.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

1 GENERAL

The Company (Registration Number 200604346E) is incorporated in Singapore as a public company limited by guarantee and its registered office and place of business is located at 21 Lower Kent Ridge Road Singapore 119077.

The Company is principally engaged in the advancement and dissemination of knowledge, and the promotion of research and scholarship.

The principal activities of the subsidiaries are disclosed in Note 5 to the financial statements.

The consolidated financial statements of the Group and the statement of financial position, statement of comprehensive income and statement of changes in funds and reserves of the Company as of and for the year ended 31 March 2020 were authorised for issue in accordance with a resolution of the Trustees on 12 August 2020.

2 SIGNIFICANT ACCOUNTING POLICIES

a) BASIS OF ACCOUNTING

The financial statements have been prepared in accordance with the historical cost basis, except as disclosed in the accounting policies below and are drawn up in accordance with the provisions of the Singapore Companies Act, the Charities Act and Singapore Financial Reporting Standards ("FRSs"). The financial statements are presented in Singapore dollars (S\$) and all values in the table are rounded to the nearest thousand (S\$'000) as indicated.

Historical cost is generally based on the fair value of the consideration given in exchange for goods and services.

The accounting policies adopted are consistent with those of the previous financial year except for the changes in accounting policies and adoption of new and revised standards and interpretations as disclosed below:

ADOPTION OF NEW AND REVISED STANDARDS – In the current financial year, the Group has adopted all the new and revised FRSs and Interpretations of FRS ("INT FRS") that are relevant to its operations and effective for annual periods beginning on or after 1 April 2019. The adoption of these new/revised FRSs and INT FRSs does not result in changes to the Group's and Company's accounting policies and has no material effect on the financial statements for the current or prior years except as disclosed below.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

a) BASIS OF ACCOUNTING (cont'd)

FRS 116 Leases

FRS 116 introduces new or amended requirements with respect to lease accounting. It introduces significant changes to lessee accounting by removing the distinction between operating and finance lease and requiring the recognition of a right-of-use asset and a lease liability at commencement for all leases, except for short-term leases and leases of low value assets when such recognition exemptions are adopted. In contrast to lessee accounting, the requirements for lessor accounting have remained largely unchanged. The impact of the adoption of FRS 116 on the Group's financial statements is described below.

The date of initial application of FRS 116 for the Group is 1 April 2019.

The Group has applied FRS 116 using the cumulative catch-up approach which:

- requires the Group to recognise the cumulative effect of initially applying FRS 116 as an adjustment to the opening balance of retained earnings at the date of initial application; and
- does not permit restatement of comparatives, which continue to be presented under FRS 17 and INT FRS 104.

(a) Impact of the new definition of a lease

The Group has made use of the practical expedient available on transition to FRS 116 not to reassess whether a contract is or contains a lease. Accordingly, the definition of a lease in accordance with FRS 17 and INT FRS 104 will continue to be applied to those leases entered or changed before 1 April 2019.

The change in definition of a lease mainly relates to the concept of control. FRS 116 determines whether a contract contains a lease on the basis of whether the customer has the right to control the use of an identified asset for a period of time in exchange for consideration. This is in contrast to the focus on 'risks and rewards' in FRS 17 and INT FRS 104.

The Group applies the definition of a lease and related guidance set out in FRS 116 to all lease contracts entered into or modified on or after 1 April 2019 (whether it is a lessor or a lessee in the lease contract). The new definition in FRS 116 does not significantly change the scope of contracts that meet the definition of a lease for the Group.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

a) BASIS OF ACCOUNTING (cont'd)

(b) Impact on lessee accounting

Former operating leases

FRS 116 changes how the Group accounts for leases previously classified as operating leases under FRS 17, which were off-balance-sheet.

Applying FRS 116, for all leases, the Group:

- Recognises right-of-use assets and lease liabilities in the statements of financial position, initially measured at the present value of the remaining lease payments, with the right-of-use asset adjusted by the amount of any prepaid or accrued lease payments in accordance with FRS 116. C8(b)(ii);
- Recognises depreciation of right-of-use assets and interest on lease liabilities in the statement of comprehensive income; and
- Separates the total amount of cash paid into a principal portion (presented within financing activities) and interest (presented within operating activities) in the statement of cash flows.

Lease incentives (e.g. free rent period) are recognised as part of the measurement of the right-of-use assets and lease liabilities whereas under FRS 17 they resulted in the recognition of a lease incentive liability, amortised as a reduction of rental expense on a straight-line basis.

Under FRS 116, right-of-use assets are tested for impairment in accordance with FRS 36 *Impairment of Assets*.

For short-term leases (lease term of 12 months or less) and leases of low-value assets (which includes leases of copier and printer machines), the Group has opted to recognise a lease expense on a straight-line basis as permitted by FRS 116. This expense is presented within income or expenditure.

The Group has used the following practical expedients when applying the cumulative catch-up approach to leases previously classified as operating leases applying FRS 17.

- The Group has applied a single discount rate to a portfolio of leases with reasonably similar characteristics.
- The Group has elected not to recognise right-of-use assets and lease liabilities to leases for which the lease term ends within 12 months of the date of initial application.
- The Group has excluded initial direct costs from the measurement of the right-of-use assets at the date of initial application.
- The Group has used hindsight when determining the lease term when the contract contains options to extend or terminate the lease.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

a) BASIS OF ACCOUNTING (cont'd)

(c) Financial impact of initial application of FRS 116

The lessee's incremental borrowing rates applied to the lease liabilities recognised in the statement of financial position of the Group on 1 April 2019 is 2.2%.

The following table shows the operating lease commitments disclosed applying FRS 17 as at 31 March 2019, discounted using the incremental borrowing rate at the date of initial application and the lease liabilities recognised in the statement of financial position at the date of initial application.

| | GROUP AND COMPANY |
|--|-------------------|
| | S\$'000 |
| Operating lease commitments at 31 March 2019 | 229 |
| Leases previously not included | 86,542 |
| Less: Effect of discounting the above amounts | (4,563) |
| Lease liabilities recognised as at 1 April 2019 | 82,208 |

Right-of-use assets were measured at the amount equal to the lease liability, adjusted by the amount of any prepaid or accrued lease payments relating to that lease recognised in the statement of financial position immediately before the date of initial application.

During the year, the Group's leasehold land amounted to S\$244,587,000 have been reclassified to 'right-of-use assets' under FRS 116 at date of initial application as disclosed in Note 8.

(d) Impact on Lessor Accounting

FRS 116 does not change substantially how a lessor accounts for leases. Under FRS 116, a lessor continues to classify leases as either finance leases or operating leases and account for those two types of leases differently.

NEW/REVISED STANDARDS AND IMPROVEMENTS TO THE STANDARDS NOT YET ADOPTED – At the date of authorisation of these financial statements, the following new/revised FRS relevant to the Group which are issued but not effective:

Effective for annual periods beginning on or after 1 April 2020

- Amendments to FRS 1 *Presentation of Financial Statements* and FRS 8 *Accounting Policies, Changes in Accounting Estimates and Errors: Definition of Material*
- Amendments to References to the Conceptual Framework in FRS Standards

Management anticipates that the adoption of the above amendments to FRSs in future periods will not have a material impact on the financial statements of the Group and the Company in the period of their initial adoption.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

b) BASIS OF CONSOLIDATION

The consolidated financial statements comprise the financial statements of the Company and its subsidiaries as at the end of the reporting period. The financial statements of the subsidiaries used in the preparation of the consolidated financial statements are prepared for the same reporting date as the Company. Consistent accounting policies are applied to like transactions and events in similar circumstances.

All intra-group balances, income and expenses and unrealised gains and losses resulting from intra-group transactions and dividends are eliminated in full.

Subsidiaries are consolidated from the date of acquisition, being the date on which the Group obtains control, and continue to be consolidated until the date that such control ceases.

Losses within a subsidiary are attributed to the non-controlling interest even if that results in a deficit balance.

Changes in the Company's ownership interest of a subsidiary that do not result in a loss of control are accounted for as equity transactions. If the Group loses control over a subsidiary, it:

- derecognises the assets (including goodwill) and liabilities of the subsidiary at their carrying amounts at the date when control is lost;
- derecognises the carrying amount of any non-controlling interest;
- derecognises the cumulative translation differences recorded in equity;
- recognises the fair value of the consideration received;
- recognises the fair value of any investment retained;
- recognises any surplus or deficit in income or expenditure; and
- reclassifies the Group's share of components previously recognised in other comprehensive income to income or expenditure or retained earnings, as appropriate.

c) SUBSIDIARIES AND ASSOCIATES

i) Subsidiaries

A subsidiary is an investee that is controlled by the Company. The Company controls an investee when it is exposed, or has rights, to variable returns from its involvement with the investee and has the ability to affect those returns through its power over the investee.

In the Company's separate financial statements, investments in subsidiaries are accounted for at cost less impairment losses.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

c) SUBSIDIARIES AND ASSOCIATES (cont'd)

ii) Associates

An associate is an entity over which the Group has the power to participate in the financial and operating policy decisions of the investee but does not have control or joint control of those policies.

The Group accounts for its investments in associates using the equity method from the date on which it becomes an associate.

On acquisition of the investment, any excess of the cost of the investment over the Group's share of the net fair value of the investee's identifiable assets and liabilities is accounted for as goodwill and is included in the carrying amount of the investment. Any excess of the Group's share of the net fair value of the investee's identifiable assets and liabilities over the cost of the investment is included as income in the determination of the entity's share of the associate's profit or loss in the period in which the investment is acquired.

Under the equity method, the investment in associates are carried in the statement of financial position at cost plus post-acquisition changes in the Group's share of net assets of the associates. The income or expenditure reflects the share of results of the operations of the associates. Distributions received from associates reduce the carrying amount of the investment. Where there has been a change recognised in other comprehensive income by the associates, the Group recognises its share of such changes in other comprehensive income. Unrealised gains and losses resulting from transactions between the Group and associate are eliminated to the extent of the interest in the associates.

When the Group's share of losses in an associate equals or exceeds its interest in the associate, the Group does not recognise further losses, unless it has incurred obligations or made payments on behalf of the associate.

After application of the equity method, the Group determines whether it is necessary to recognise an additional impairment loss on the Group's investment in associate. The Group determines at the end of each reporting period whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the Group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount in income or expenditure.

Net assets of the associates are included in the consolidated financial statements under the equity method based on their latest audited financial statements. Where their financial periods do not end on 31 March, management accounts to 31 March are used. Where necessary, adjustments are made to bring the accounting policies in line with those of the Group. In any case, the difference between the end of the reporting period of the associate and that of the investor shall be no more than three months. The length of the reporting periods and any difference between the ends of the reporting periods shall be the same from period to period.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

d) JOINT ARRANGEMENTS

A joint arrangement is a contractual arrangement whereby two or more parties have joint control. Joint control is the contractually agreed sharing of control of an arrangement, which exists only when decisions about the relevant activities require the unanimous consent of the parties sharing control.

A joint arrangement is classified either as joint operation or joint venture, based on the rights and obligations of the parties to the arrangement.

To the extent the joint arrangement provides the Group with rights to the assets and obligations for the liabilities relating to the arrangement, the arrangement is a joint operation. To the extent the joint arrangement provides the Group with rights to the net assets of the arrangement, the arrangement is a joint venture.

Joint operations

The Group recognises in relation to its interest in a joint operation,

- its assets, including its share of any assets held jointly;
- its liabilities, including its share of any liabilities incurred jointly;
- its revenue from the sale of its share of the output arising from the joint operation;
- its share of the revenue from the sale of the output by the joint operation; and
- its expenses, including its share of any expenses incurred jointly.

The Group accounts for the assets, liabilities, revenues and expenses relating to its interest in a joint operation in accordance with the accounting policies applicable to the particular assets, liabilities, revenues and expenses.

e) FINANCIAL INSTRUMENTS

Financial assets and liabilities are recognised on the Group's statement of financial position when the Group becomes a party to the contractual provisions of the financial instrument.

Financial assets and financial liabilities are initially measured at fair value. Transaction costs that are directly attributable to the acquisition or issue of financial assets and financial liabilities (other than financial assets and financial liabilities at fair value through income or expenditure) are added to or deducted from the fair value of the financial assets and financial liabilities, as appropriate, on initial recognition. Transaction costs directly attributable to the acquisition of financial assets or financial liabilities at fair value through income or expenditure are recognised immediately in income or expenditure.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

e) FINANCIAL INSTRUMENTS (cont'd)

i) Financial assets

All financial assets are recognised and de-recognised on a trade date basis where the purchase or sale of financial assets is under a contract whose terms require delivery of assets within the time frame established by the market concerned.

All recognised financial assets are subsequently measured in their entirety at either amortised cost or fair value, depending on the classification of the financial assets.

Classification of financial assets

Debt instruments that meet the following conditions are subsequently measured at amortised cost:

- the financial asset is held within a business model whose objective is to hold financial assets in order to collect contractual cash flows; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Debt instruments that meet the following conditions are subsequently measured at fair value through other comprehensive income (FVTOCI):

- the financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling the financial assets; and
- the contractual terms of the financial asset give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

By default, all other financial assets are subsequently measured at fair value through income or expenditure (FVTIE).

Despite the foregoing, the Group may make the following irrevocable election/designation at initial recognition of a financial asset:

- the Group may irrevocably elect to present subsequent changes in fair value of an equity investment in other comprehensive income if certain criteria are met; and
- the Group may irrevocably designate a debt investment that meets the amortised cost or FVTOCI criteria as measured at FVTIE if doing so eliminates or significantly reduces an accounting mismatch.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

e) FINANCIAL INSTRUMENTS (cont'd)

i) Financial assets (cont'd)

Amortised cost and effective interest method

The effective interest method is a method of calculating the amortised cost of a debt instrument and of allocating interest income over the relevant period.

The effective interest rate is the rate that exactly discounts estimated future cash receipts (including all fees and points paid or received that form an integral part of the effective interest rate, transaction costs and other premiums or discounts) excluding expected credit losses, through the expected life of the debt instrument, or, where appropriate, a shorter period, to the gross carrying amount of the debt instrument on initial recognition.

The amortised cost of a financial asset is the amount at which the financial asset is measured at initial recognition minus the principal repayments, plus the cumulative amortisation using the effective interest method of any difference between that initial amount and the maturity amount, adjusted for any loss allowance. On the other hand, the gross carrying amount of a financial asset is the amortised cost of a financial asset before adjusting for any loss allowance.

Interest income is recognised using the effective interest method for debt instruments measured subsequently at amortised cost, except for short-term balances when the effect of discounting is immaterial.

Equity instruments designated as at FVTOCI

On initial recognition, the Group may make an irrevocable election (on an instrument-by-instrument basis) to designate investments in equity instruments as at FVTOCI. Designation at FVTOCI is not permitted if the equity investment is held for trading or if it is contingent consideration recognised by an acquirer in a business combination.

A financial asset is held for trading if:

- it has been acquired principally for the purpose of selling it in the near term; or
- on initial recognition it is part of a portfolio of identified financial instruments that the company manages together and has evidence of a recent actual pattern of short-term profit-taking; or
- it is a derivative (except for a derivative that is a financial guarantee contract or a designated and effective hedging instrument).

Investments in equity instruments at FVTOCI are initially measured at fair value plus transaction costs. Subsequently, they are measured at fair value with gains and losses arising from changes in fair value recognised in other comprehensive income and accumulated in the fair value reserve. The cumulative gain or loss will not be reclassified to income or expenditure on disposal of the equity investments, instead, they will be transferred to accumulated surplus.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

e) FINANCIAL INSTRUMENTS (cont'd)

i) Financial assets (cont'd)

The Group has designated all investments in equity instruments that are not held for trading as at FVTOCI.

Dividends on these investments in equity instruments are recognised in income or expenditure when the Group's right to receive the dividends is established, unless the dividends clearly represent a recovery of part of the cost of the investment.

Financial assets at FVTIE

Financial assets that do not meet the criteria for being measured at amortised cost or FVTOCI are measured at FVTIE. Specifically:

- Investments in equity instruments are classified as at FVTIE, unless the Group designates an equity investment that is neither held for trading nor a contingent consideration arising from a business combination as at FVTOCI on initial recognition.
- Debt instruments that do not meet the amortised cost criteria or the FVTOCI criteria are classified as at FVTIE. In addition, debt instruments that meet either the amortised cost criteria or the FVTOCI criteria may be designated as at FVTIE upon initial recognition if such designation eliminates or significantly reduces a measurement or recognition inconsistency that would arise from measuring assets or liabilities or recognising the gains and losses on them on different bases.

Financial assets at FVTIE are measured at fair value as at each reporting date, with any fair value gains or losses recognised in income or expenditure to the extent they are not part of a designated hedging relationship. The net gain or loss recognised in income or expenditure includes any dividend or interest earned on the financial asset. Fair value is determined in the manner described in Note 4(b)(vi).

Impairment of financial assets

The Group recognises a loss allowance for expected credit losses ("ECL") on debt instruments that are measured at amortised cost or investments at FVTOCI, student loans, debtors and deposits. The amount of expected credit losses is updated at each reporting date to reflect changes in credit risk since initial recognition of the respective financial instrument.

The Group always recognises lifetime ECL for student loans and debtors. The expected credit losses on these financial assets are estimated using a provision matrix based on the Group's historical credit loss experience, adjusted for factors that are specific to the debtors, general economic conditions and an assessment of both the current as well as the forecast direction of conditions at the reporting date, including time value of money where appropriate.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

e) FINANCIAL INSTRUMENTS (cont'd)

i) Financial assets (cont'd)

Impairment of financial assets (cont'd)

For all other financial instruments, the Group recognises lifetime ECL when there has been a significant increase in credit risk since initial recognition. If, on the other hand, the credit risk on the financial instrument has not increased significantly since initial recognition, the company measures the loss allowance for that financial instrument at an amount equal to 12-month ECL. The assessment of whether lifetime ECL should be recognised is based on significant increases in the likelihood or risk of a default occurring since initial recognition instead of on evidence of a financial asset being credit-impaired at the reporting date or an actual default occurring.

Significant increase in credit risk

In assessing whether the credit risk on a financial instrument has increased significantly since initial recognition, the Group compares the risk of a default occurring on the financial instrument as at the reporting date with the risk of a default occurring on the financial instrument as at the date of initial recognition. In making this assessment, the Group considers historical loss rates for each category of customers and adjusts to reflect current and forward-looking macroeconomic factors affecting the ability of the customers to settle the receivables.

The Group presumes that the credit risk on a financial asset has increased significantly since initial recognition when contractual payments are more than 30 days past due, unless the Group has reasonable and supportable information that demonstrates otherwise.

The Group assumes that the credit risk on a financial instrument has not increased significantly since initial recognition if the financial instrument is determined to have low credit risk at the reporting date. A financial instrument is determined to have low credit risk if i) the financial instrument has a low risk of default, ii) the borrower has a strong capacity to meet its contractual cash flow obligations in the near term and iii) adverse changes in economic and business conditions in the longer term may, but will not necessarily, reduce the ability of the borrower to fulfil its contractual cash flow obligations.

The Group regularly monitors the effectiveness of the criteria used to identify whether there has been a significant increase in credit risk and revises them as appropriate to ensure that the criteria are capable of identifying significant increase in credit risk before the amount becomes past due.

Definition of default

The Group considers that default has occurred when a financial asset is more than 90 days past due unless the Group has reasonable and supportable information to demonstrate that a more lagging default criterion is more appropriate.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

e) FINANCIAL INSTRUMENTS (cont'd)

i) Financial assets (cont'd)

Credit-impaired financial assets

A financial asset is credit-impaired when one or more events that have a detrimental impact on the estimated future cash flows of that financial asset have occurred.

Write-off policy

The Group writes off a financial asset when there is information indicating that the counterparty is in severe financial difficulty and there is no realistic prospect of recovery, e.g. when the counterparty has been placed under liquidation or has entered into bankruptcy proceedings, or in the case of trade receivables, when the amounts are over two years past due, whichever occurs sooner. Financial assets written off may still be subject to enforcement activities under the company's recovery procedures, taking into account legal advice where appropriate. Any recoveries made are recognised in income or expenditure.

Measurement and recognition of expected credit losses

For financial assets, the expected credit loss is estimated as the difference between all contractual cash flows that are due to the Group in accordance with the contract and all the cash flows that the Group expects to receive, discounted at the original effective interest rate.

If the Group has measured the loss allowance for a financial instrument at an amount equal to lifetime ECL in the previous reporting period, but determines at the current reporting date that the conditions for lifetime ECL are no longer met, the Group measures the loss allowance at an amount equal to 12-month ECL at the current reporting date.

Derecognition of financial assets

The Group derecognises a financial asset only when the contractual rights to the cash flows from the asset expire, or when it transfers the financial asset and substantially all the risks and rewards of ownership of the asset to another party. If the Group neither transfers nor retains substantially all the risks and rewards of ownership and continues to control the transferred asset, the Group recognises its retained interest in the asset and an associated liability for amounts it may have to pay. If the Group retains substantially all the risks and rewards of ownership of a transferred financial asset, the Group continues to recognise the financial asset and also recognises a collateralised borrowing for the proceeds received.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

e) FINANCIAL INSTRUMENTS (cont'd)

ii) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand, bank balances and fixed deposits that are readily convertible to a known amount of cash and are subject to an insignificant risk of changes in value.

iii) Financial liabilities

Financial liabilities are classified as either financial liabilities "at fair value through Income or expenditure" or other financial liabilities.

The accounting policies adopted for specific financial liabilities are set out below.

Creditors and accrued expenses

Creditors and accrued expenses are measured at fair value, and are subsequently measured at amortised cost, using effective interest method.

Fixed rate notes and term loan

Fixed rate notes and term loan are initially recognised at fair value incurred and subsequently stated at amortised cost, using the effective interest rate method.

Derivative financial instruments

The Group enters into a variety of derivative financial instruments to manage its currency risk. It does not apply hedge accounting.

Derivatives are initially recognised at fair value at the date a derivative contract is entered into and are subsequently valued to their fair value at the end of each reporting period. The resulting gain or loss is recognised in income or expenditure immediately.

Derecognition of financial liabilities

The Group derecognises financial liabilities when, and only when, the Group's obligations are discharged, cancelled or they expire.

f) FOREIGN CURRENCY TRANSACTIONS AND TRANSLATION

The individual financial statements of each Group entity are measured and presented in the currency of the primary economic environment in which the entity operates (its functional currency). The consolidated financial statements of the Group are presented in Singapore dollars, which is the functional currency of the Company.

In preparing the financial statements of the individual entities, transactions are recorded at the prevailing exchange rates on the date of the transaction. Monetary items and non-monetary items carried at fair value, denominated in foreign currencies are translated at the prevailing exchange rates at the end of the reporting period. Non-monetary items that are measured in terms of historical costs in foreign currency are not retranslated.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

f) FOREIGN CURRENCY TRANSACTIONS AND TRANSLATION (cont'd)

Exchange gains or losses arising on the settlement and translation of monetary items, are included in income or expenditure for the period. When exchange gains or losses on the non-monetary items included in income or expenditure or other comprehensive income, the exchange gains and losses are recognised in income or expenditure or other comprehensive income respectively.

For the purpose of presenting consolidated financial statements, the assets and liabilities of the Group's foreign subsidiaries (including comparatives) are expressed in Singapore dollars using exchange rates prevailing at the end of the reporting period. Income and expenditure items (including comparatives) are translated at the average exchange rates for the period, unless exchange rates fluctuated significantly during the period, in which case the exchange rates at the dates of the transactions are used. Exchange differences arising, if any, are recognised in other comprehensive income and accumulated in the Group's translation reserve in equity. Such translation differences will be reclassified from equity to income or expenditure, as a reclassification adjustment, in the period in which the foreign subsidiary is disposed of.

g) REVENUE RECOGNITION

The Group recognises income from the following major sources:

- Tuition and other fees
- Non-endowed donations
- Rental income
- Dividend income
- Interest income

Income is measured based on the consideration specified in a contract with a customer and excludes amounts collected on behalf of third parties. The Group recognises income when it transfers control of a product or when service is rendered to a customer.

Tuition and other fees

Income from tuition and other fees comes from the provision of tuition services to undergraduate or postgraduate students. It includes the provision of course and conference fees and clinical and consultancy fees rendered to the students over the academic period. Tuition and other fees are recognised as the courses are rendered and satisfied over time. Payments received from students for tuition and other fees in which the courses have not been rendered is recognised as a deferred income until the courses have been rendered to the students.

The Group has reduced income from tuition and other fees based on the scholarships given to students. These scholarships are offset against tuition and other fees to reflect the net consideration received by the Group.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

g) REVENUE RECOGNITION (cont'd)

Non-endowed donations

Non-endowed donations are recognised at the point in time when they are received.

Rental income

Rental income is mainly from the rental of hostels and apartments and is recognised on a straight-line basis over the term of the relevant lease in accordance with FRS 116 *Leases*.

Dividend income

Dividend income is recognised when the right to receive payment is established.

Interest income

Interest income is recognised on a time proportion basis using the effective interest method.

h) BORROWING COST

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets, until such time as the assets are substantially ready for their intended use or sale. All other borrowing costs are charged to income or expenditure.

i) GRANTS

Government grants are recognised at their fair value where there is reasonable assurance that the grant will be received and all attaching conditions will be complied with.

Government grants and contributions from other organisations for the purchase of fixed assets or to finance capital projects are taken to the grants received in advance in the first instance. They are taken to the deferred capital grants account upon utilisation of the grants for the purchase of assets which are capitalised, or to income or expenditure for purchases of assets which are expensed off. Donated tangible fixed assets, with the exception of non-depreciable fixed assets donated for use by the Group, are valued and taken to deferred capital grants and the debit taken to the relevant fixed asset category. Donated non-depreciable assets are taken to income or expenditure.

Deferred capital grants are recognised in the income or expenditure over the periods necessary to match the depreciation of the assets purchased with the related grants. Upon the disposal of the fixed assets, the balance of the related deferred capital grants is recognised in income or expenditure to match the net book value of fixed assets disposed of.

Government and other grants in respect of the current year's operating expenses are recognised as income in the same year. Such grants which are received but not utilised are included in the grants received in advance account.

Grants are accounted for on an accrual basis.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

j) FUNDS

Designated General Funds

Income and expenditure of the Group are generally accounted for under Designated General Funds in the Group's statement of comprehensive income. Designated General Funds include funds set aside for specific or committed purposes such as planned operational activities of faculties, departments and halls of residences, and self-financing activities of the Group. Although set aside for specific or committed purposes, such funds may at the discretion of the Board of Trustees, be used for other purposes. Income and expenditure relating to these funds are accounted for directly in the funds to which they relate.

Endowment Funds

Endowed donations received and Government matching grants received/receivable during the year, which are required to be kept intact as capital, are taken directly to the Endowment Funds. Income and expenditure arising from the management of the Endowment Funds are taken to the statement of comprehensive income of the Endowment Funds.

Other Restricted Funds

The income and expenditure relating to funds that are subject to legal or grantor/donor imposed stipulation are accounted for under Other Restricted Funds in the Group's statement of comprehensive income. The following are classified under Other Restricted Funds:

- (i) funds created from non-endowed donations for specific purposes; and
- (ii) external grants received from grantors as they are received for restricted purpose specified by grantors.

k) FIXED ASSETS AND DEPRECIATION

Fixed assets are stated at cost less accumulated depreciation and any accumulated impairment loss.

Capital work-in-progress consists of construction costs and related expenses incurred during the period of construction.

The gain or loss arising on the disposal or retirement of an asset is determined as the difference between the sales proceeds and the carrying amount of the asset and is recognised in income or expenditure.

Depreciation is computed on a straight line basis over the shorter of period of leases or their estimated useful lives, on the following bases:

| | No. of years |
|---|--------------|
| Leasehold land (before 1 April 2019) | 30 to 90 |
| Buildings | 30 |
| Leasehold improvements | 10 |
| Infrastructure | 30 to 90 |
| Equipment, furniture and fittings and library materials | 3 to 10 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

k) FIXED ASSETS AND DEPRECIATION (cont'd)

Depreciation is not provided for capital work-in-progress as the assets are not yet available for use. Artifacts and freehold land have infinite useful life and are not depreciated.

The estimated useful lives, residual values and depreciation method are reviewed at each year end, with effect of any changes in estimate accounted for on a prospective basis.

The carrying values of property, plant and equipment are reviewed for impairment when events or changes in circumstances indicate that the carrying value may not be recoverable.

An asset is derecognised upon disposal or when no future economic benefits are expected from its use or disposal. Any gain or loss on derecognition of the asset is included in income or expenditure in the year the asset is derecognised.

l) INVESTMENT PROPERTIES

Investment properties are properties that are either owned by the Group or leased under a finance lease that are held to earn rentals or for capital appreciation, or both, rather than for use in the production or supply of goods or services, or for administrative purposes, or in the ordinary course of business.

Investment properties are initially measured at cost, including transaction costs.

Subsequent to initial recognition, investment properties are measured at fair value. Gains or losses arising from changes in the fair values of investment properties are included in income or expenditure in the year in which they arise.

Investment properties are derecognised when either they have been disposed of or when the investment property is permanently withdrawn from use and no future economic benefit is expected from its disposal. Any gains or losses on the retirement or disposal of an investment property are recognised in income or expenditure in the year of retirement or disposal.

Transfers are made to or from investment property only when there is a change in use. For a transfer from owner-occupied property to investment property, the property is accounted for in accordance with the accounting policy for fixed assets set out in Note 2(k) up to the date of change in use.

m) INTANGIBLE ASSETS

Intangible assets acquired separately are recorded at cost less accumulated amortisation and any accumulated impairment losses. Intangible assets with finite useful lives are amortised on a straight-line basis over their estimated useful lives, on the following bases:

| | No. of years |
|----------------------|--------------|
| Computer software | 3 to 5 |
| Purchased curriculum | 5 |

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

m) INTANGIBLE ASSETS (cont'd)

The estimated useful life and amortisation method are reviewed at the end of each annual reporting period, with the effect of any changes in estimate being accounted for on a prospective basis. Intangible assets with indefinite useful lives are not amortised. Each period, the useful lives of such assets are reviewed to determine whether events and circumstances continue to support an indefinite useful life assessment for the asset.

n) IMPAIRMENT OF NON-FINANCIAL ASSETS

The Group assesses at each reporting date whether there is an indication that an asset may be impaired. If any indication exists, or when an annual impairment testing for an asset is required, the Group makes an estimate of the asset's recoverable amount.

An asset's recoverable amount is the higher of an asset's or cash-generating unit's fair value less costs of disposal and its value in use and is determined for an individual asset, unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. Where the carrying amount of an asset or cash-generating unit exceeds its recoverable amount, the asset is considered impaired and is written down to its recoverable amount.

Impairment losses of continuing operations are recognised in income or expenditure in those expense categories consistent with the function of the impaired asset, except for assets that are previously revalued where the revaluation was taken to other comprehensive income. In this case, the impairment is also recognised in other comprehensive income up to the amount of any previous revaluation.

A previously recognised impairment loss is reversed only if there has been a change in the estimates used to determine the asset's recoverable amount since the last impairment loss was recognised. If that is the case, the carrying amount of the asset is increased to its recoverable amount. The increase cannot exceed the carrying amount that would have been determined, net of depreciation, had no impairment loss been recognised previously.

Such reversal is recognised in income or expenditure unless the asset is measured at revalued amount, in which case the reversal is treated as a revaluation increase.

o) PROVISIONS

A provision is recognised when the Group has a present obligation (legal or constructive) as a result of a past event and it is probable that the Group will be required to settle the obligation, and a reliable estimate can be made of the amount of the obligation.

Provisions are reviewed at the end of each reporting period and adjusted to reflect the current best estimate. If it is no longer probable that an outflow of economic resources will be required to settle the obligation, the provision is reversed. If the effect of the time value of money is material, provisions are discounted using a current pre-tax rate that reflects, where appropriate, the risks specific to the liability. When discounting is used, the increase in the provision due to the passage of time is recognised as a finance cost.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

p) RETIREMENT BENEFIT COSTS

Payments to defined contribution retirement benefit plans are charged as expenditure in the period in which the related services are performed. Payments made to state-managed retirement benefit schemes, such as the Singapore Central Provident Fund, are dealt with as payments to defined contribution plans where the Group's obligation under the plans are equivalent to those arising in a defined contribution retirement benefit plan.

q) EMPLOYEE LEAVE ENTITLEMENT

Employee entitlements to annual leave are recognised when they accrue to employees. A provision is made for the estimated liability for annual leave as a result of services rendered by employees up to the end of the reporting period.

r) INCOME TAX

The Group's liability for current tax is calculated using tax rates (and tax laws) that have been enacted or substantively enacted in countries where the Company and subsidiaries operate by the end of the reporting period.

Deferred tax is recognised on differences between the carrying amounts of assets and liabilities in the financial statements and the corresponding tax bases used in the computation of taxable profit, and is accounted for using the balance sheet liability method. Deferred tax liabilities are generally recognised for all taxable temporary differences and deferred tax assets are recognised to the extent that it is probable that taxable profits will be available against which deductible temporary differences can be utilised. Such assets and liabilities are not recognised if the temporary difference arises from goodwill or from the initial recognition (other than in a business combination) of other assets and liabilities in a transaction that affects neither the taxable profit nor the accounting profit.

Deferred tax liabilities are recognised for taxable temporary differences arising on investments in subsidiaries and associates, and interests in joint ventures, except where the Group is able to control the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

The carrying amount of deferred tax assets is reviewed at the end of each reporting period and reduced to the extent that it is no longer probable that sufficient taxable profits will be available to allow all or part of the asset to be recovered.

Deferred tax is calculated at the tax rates that are expected to apply in the period when the liability is settled or the asset realised based on the tax rates (and tax laws) that have been enacted or substantively enacted by the end of the reporting period.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

r) INCOME TAX (cont'd)

Current and deferred tax are recognised as income or expenditure except when they relate to items credited or debited outside income or expenditure (either in other comprehensive income or directly in equity), in which case the tax is also recognised outside income or expenditure (either in other comprehensive income or directly in equity), or where they arise from the initial accounting for a business combination, the tax effect is taken into account in calculating goodwill or determining the excess of the acquirer's interest in the net fair value of the acquiree's identifiable assets, liabilities and contingent liabilities over costs.

s) RESEARCH EXPENDITURE

Expenditure on research activities is recognised as an expense in the period in which it is incurred.

t) LEASES

Leases (before 1 April 2019)

The Group as lessee

Rentals payable under operating leases are charged to income or expenditure on a straight-line basis over the term of the relevant lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed. Contingent rentals arising under operating leases are recognised as an expense in the period in which they are incurred.

In the event that lease incentives are received to enter into operating leases, such incentives are recognised as a liability. The aggregate benefit of incentives is recognised as a reduction of rental expense on a straight-line basis, except where another systematic basis is more representative of the time pattern in which economic benefits from the leased asset are consumed.

Lease (after 1 April 2019)

The Group as lessee

The Group assesses whether a contract is or contains a lease, at inception of the contract. The Group recognises a right-of-use asset and a corresponding lease liability with respect to all lease arrangements in which it is the lessee, except for short-term leases (defined as leases with a lease term of 12 months or less) and leases of low value assets. For these leases, the Group recognises the lease payments as an operating expense on a straight-line basis over the term of the lease unless another systematic basis is more representative of the time pattern in which economic benefits from the leased assets are consumed.

The lease liability is initially measured at the present value of the lease payments that are not paid at the commencement date, discounted by using the rate implicit in the lease. If this rate cannot be readily determined, the company uses the incremental borrowing rate specific to the lessee.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

t) LEASES (cont'd)

Lease payments included in the measurement of the lease liability comprise:

- fixed lease payments (including in-substance fixed payments), less any lease incentives;
- variable lease payments that depend on an index or rate, initially measured using the index or rate at the commencement date;
- the amount expected to be payable by the lessee under residual value guarantees;
- the exercise price of purchase options, if the lessee is reasonably certain to exercise the options; and
- payments of penalties for terminating the lease, if the lease term reflects the exercise of an option to terminate the lease.

The lease liability is presented as a separate line in the statement of financial position.

The lease liability is subsequently measured by increasing the carrying amount to reflect interest on the lease liability (using the effective interest method) and by reducing the carrying amount to reflect the lease payments made.

The Group remeasures the lease liability (and makes a corresponding adjustment to the related right-of-use asset) whenever:

- the lease term has changed or there is a change in the assessment of exercise of a purchase option, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate;
- the lease payments change due to changes in an index or rate or a change in expected payment under a guaranteed residual value, in which cases the lease liability is remeasured by discounting the revised lease payments using the initial discount rate (unless the lease payments change is due to a change in a floating interest rate, in which case a revised discount rate is used); or
- a lease contract is modified and the lease modification is not accounted for as a separate lease, in which case the lease liability is remeasured by discounting the revised lease payments using a revised discount rate.

The right-of-use assets comprise the initial measurement of the corresponding lease liability, lease payments made at or before the commencement day and any initial direct costs. They are subsequently measured at cost less accumulated depreciation and impairment losses.

Whenever the Group incurs an obligation for costs to dismantle and remove a leased asset, restore the site on which it is located or restore the underlying asset to the condition required by the terms and conditions of the lease, a provision is recognised and measured under FRS 37. The costs are included in the related right-of-use asset.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

2 SIGNIFICANT ACCOUNTING POLICIES (cont'd)

t) LEASES (cont'd)

Right-of-use assets are depreciated over the shorter period of lease term and useful life of the underlying asset. If a lease transfers ownership of the underlying asset or the cost of the right-of-use asset reflects that the Group expects to exercise a purchase option, the related right-of-use asset is depreciated over the useful life of the underlying asset. The depreciation starts at the commencement date of the lease.

The right-of-use assets are presented as a separate line in the statement of financial position.

The Group applies FRS 36 to determine whether a right-of-use asset is impaired and accounts for any identified impairment loss as described in Note 2(n).

Variable rents that do not depend on an index or rate are not included in the measurement of the lease liability and the right-of-use assets. The related payments are recognised as an expense in the period in which the event or condition that triggers those payments occurs and are included in the line 'Other operating expenditure' in the statement of comprehensive income.

As a practical expedient, FRS 116 permits a lessee not to separate non-lease components, and instead account for any lease and associated non-lease components as a single arrangement. The company has not used this practical expedient. For a contracts that contain a lease component and one or more additional lease or non-lease components, the Group allocates the consideration in the contract to each lease component on the basis of the relative stand-alone price of the lease component and the aggregate stand-alone price of the non-lease components.

3 CRITICAL ACCOUNTING JUDGEMENTS AND KEY SOURCES OF ESTIMATION UNCERTAINTY

In the application of the Group's accounting policies, which are described in Note 2, there are no critical judgements, apart from those involving estimates (see below), that Management has made in the process of applying the Group's accounting policies and that have significant effect on the amounts recognised in financial statements.

a) Key sources of estimation uncertainty

(i) Fair value estimation

The Group holds unquoted equity securities that are not traded in an active market. The Group has used the net asset value disclosed in the financial statements of the entities (as these pertain mainly to funds whose investments are stated at fair value) and external valuations as the fair value for these financial assets. The carrying amounts of these unquoted securities for Group and Company at the end of the reporting period were S\$6,882,723,000 (2019: S\$6,900,095,000) and S\$6,882,916,000 (2019: S\$6,897,947,000) respectively.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT

a) Categories of financial instruments

The following table sets out the financial instruments as at the end of the reporting period:

| | GROUP | | COMPANY | |
|---|-------------------|-------------------|-------------------|-------------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Financial Assets | | | | |
| At FVTIE: | | | | |
| Investments | 10,059,710 | 9,647,005 | 10,059,710 | 9,647,005 |
| Derivative financial instruments | 6,888 | 3,137 | 6,888 | 3,137 |
| Sub-total | 10,066,598 | 9,650,142 | 10,066,598 | 9,650,142 |
| Loans and receivables at amortised cost: | | | | |
| – Debtors | 685,212 | 611,221 | 676,246 | 606,037 |
| – Student loans | 4,884 | 5,932 | 4,884 | 5,932 |
| – Fixed deposits | 633 | 630 | 633 | 630 |
| – Cash and bank balances | 169,093 | 159,949 | 135,613 | 135,731 |
| – Advances for investment in funds | – | 54,180 | – | 54,180 |
| – Deposits paid | 691 | 1,069 | 691 | 887 |
| – Long-term loan to subsidiary company | – | – | 5,000 | – |
| – Amounts owing from subsidiary companies | – | – | 4 | 880 |
| Sub-total | 860,513 | 832,981 | 823,071 | 804,277 |
| Investments at FVTOCI | 2,204 | 5,303 | 1,596 | 2,673 |
| Sub-total | 2,204 | 5,303 | 1,596 | 2,673 |
| Total | 10,929,315 | 10,488,426 | 10,891,265 | 10,457,092 |
| Financial Liabilities | | | | |
| At FVTIE: | | | | |
| Derivative financial instruments | 90,211 | 11,710 | 90,211 | 11,710 |
| Financial liabilities at amortised cost: | | | | |
| – Creditors and accrued expenses | 335,395 | 284,210 | 333,108 | 281,729 |
| – Borrowings | 1,009,898 | 1,020,000 | 1,009,898 | 1,020,000 |
| – Amounts owing to subsidiary companies | – | – | 28,294 | 28,031 |
| Sub-total | 1,345,293 | 1,304,210 | 1,371,300 | 1,329,760 |
| Lease liabilities | 59,945 | – | 59,945 | – |
| Total | 1,495,449 | 1,315,920 | 1,521,456 | 1,341,470 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT *(cont'd)*

b) Financial risk management policies and objectives

The Group invests in a variety of assets and market instruments. These are separated into two large categories, namely, bonds and quoted/unquoted equities for reporting. This exposes the Group to a variety of risks from the changes in financial market environment and fluctuations in foreign exchange rates and interest rates. The Group seeks to minimise the potential adverse effects from these exposures to its assets through having a clear investment mandate, risk management strategy, investment policies and an investment framework approved by the Group's Investment Committee.

The Group's overall risk management strategy is to firstly ensure adequate diversification across its investments through its long term asset allocation policy. Having a structured and detailed due diligence process and closely tracking the Group's investment and deviation from the policy target helps to further manage the risks.

The long term asset allocation policy is the long-term asset mix of the Group's portfolio of investments and defines the assets that the Group is able to invest in. The long term asset allocation policy is the central tenet of endowment risk management. It sets the acceptable risk for the funds and ensures adequate diversification across asset classes. Deviation from the policy targets changes the risk and returns profile of the endowment fund, and increases the risk that the objectives of the endowment will not be met. Furthermore, any deviation from the policy targets for one asset class will result in a deviation in policy targets for another asset class.

During the year ended 31 March 2020, the Board of Trustees approved a long term risk tolerance in the management of the funds. The risk tolerance provides clarity on the investment risk to be assumed in the portfolio and ensures that any investment decision or deviation from the policy targets is consistent with the risk tolerance of the Board of Trustee. There has been no significant change to the Group's exposure to these financial risks.

(i) Market risk – price risk management

The Group is exposed to price risk arising from the investments, invested either directly or through externally managed funds in the various asset classes under the long-term asset allocation policy. The Group manages its price risk through having a diversified portfolio and target weights, thus monitoring and controlling exposure risk. The performance of the managed funds is regularly reviewed by the Investment Office, which manages the portfolio.

In respect of quoted and unquoted equity securities, a +/-5% change in investment value as at 31 March 2020 will result in a +/- S\$399,425,000 (2019: +/- S\$396,082,000) gain / loss in net surplus for the Group and Company. This analysis has been performed with all other variables constant.

The above sensitivity has been disclosed in accordance with the requirements of FRS 107. In Management's opinion, the sensitivity analysis is not fully representative of the risk considerations for its investments. The Group's investments are regularly assessed with a larger spectrum of risk considerations included in the long-term asset allocation policy.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT *(cont'd)*

b) Financial risk management policies and objectives *(cont'd)*

(ii) Interest rate risk management

The Group's investments are subject to interest rate risk as the Group invests in fixed income securities. The Group monitors interest rates regularly to ensure excess funds are invested at competitive rates.

Both market and interest rate movements will affect the target weights of asset class in the long-term asset allocation policy. The sensitivity analysis below has been determined based on exposures to price and interest rate risks at the reporting date.

In respect of the quoted and unquoted Government bonds and debt securities, a +/-1% change in interest rates as at 31 March 2020 will result in a +/- S\$106,584,000 (2019: +/- S\$46,717,000) loss / gain in net surplus for the Group and Company. Similarly this analysis was performed with all other variables constant. The correlation of the other variables has been assumed to be constant.

The above sensitivity has been disclosed in accordance with the requirements of FRS 107. In Management's opinion, the sensitivity analysis is not fully representative of the risk considerations for its investments. The Group's investments are regularly assessed with a larger spectrum of risk considerations included in the long-term asset allocation policy.

(iii) Foreign exchange risk management

Some of the Group's transactions and investments are conducted in foreign currencies, including United States dollars, Euro and Japanese Yen, and therefore is exposed to foreign exchange risk. The Group manages its currency exposure by hedging its foreign currency investments through currency swap contracts as stipulated in the Group's foreign currency hedging policy.

a) Investments

The Group's foreign currency exposure for investments as at end of each reporting period are as follows:

| | GROUP AND COMPANY | | | |
|-----------------------|------------------------------------|--|------------------------------------|--|
| | 2020 | | 2019 | |
| | Investments at FVTIE S\$'000 | Derivatives Financial Instruments S\$'000 | Investments at FVTIE S\$'000 | Derivatives Financial Instruments S\$'000 |
| United States Dollars | 6,926,777 | 2,884 | 6,302,208 | (6,715) |
| Other Currencies | 648,232 | (4,710) | 686,286 | (1,858) |

If the United States dollars were to change by 1% against the Singapore dollar, the Group's surplus will increase/decrease by S\$48,573,000 (2019: increase/decrease by S\$44,578,000).

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(iii) Foreign exchange risk management (cont'd)

b) Other financial assets and financial liabilities

The Group's operation is not exposed to significant foreign exchange risk as most of its transactions are transacted in Singapore dollars.

At the end of each reporting period, the amounts of monetary assets and monetary liabilities (other than investments) denominated in foreign currencies at 31 March are mainly in United States Dollars and are as follows:

| | GROUP | | | | COMPANY | | | |
|--------------------------|---------|---------|-------------|---------|---------|---------|-------------|---------|
| | Assets | | Liabilities | | Assets | | Liabilities | |
| | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| United States Dollars | 135,457 | 81,862 | 990 | 1,150 | 134,769 | 80,710 | 979 | 1,120 |
| Other foreign currencies | 9,520 | 6,721 | 881 | 1,062 | 9,264 | 6,588 | 787 | 1,062 |

If the United States dollars were to change by 1% against the Singapore dollar, the Group's and Company's surplus will increase/decrease by S\$1,345,000 and S\$1,338,000 (2019: increase/decrease by S\$807,000 and S\$796,000 respectively).

(iv) Liquidity risk management

The Group manages the liquidity risk by maintaining sufficient cash and cash equivalents and ensuring, the availability of borrowing facilities to fund working capital requirements and capital expenditure, if required.

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NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(iv) Liquidity risk management (cont'd)

a) Financial liabilities (excluding derivatives)

The following table details the remaining contractual maturity for non-derivative financial liabilities, drawn up based on the undiscounted cash flows of financial liabilities based on the earliest date on which the Group and Company can be required to pay.

| | Weighted average effective interest rate | On demand or within 1 year | Within 2 to 5 years | After 5 years | Total |
|----------------------|--|----------------------------------|------------------------|------------------|------------------|
| | % | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| GROUP | | | | | |
| 2020 | | | | | |
| Non-interest bearing | – | 335,395 | – | – | 335,395 |
| Interest bearing | 2.1 | 13,737 | 1,031,608 | – | 1,045,345 |
| Lease liabilities | 2.2 | 22,523 | 36,171 | 4,392 | 63,086 |
| Total | | 371,655 | 1,067,779 | 4,392 | 1,443,826 |
| 2019 | | | | | |
| Non-interest bearing | – | 284,210 | – | – | 284,210 |
| Interest bearing | 2.1 | 16,019 | 1,033,982 | – | 1,050,001 |
| Total | | 300,229 | 1,033,982 | – | 1,334,211 |
| COMPANY | | | | | |
| 2020 | | | | | |
| Non-interest bearing | – | 361,402 | – | – | 361,402 |
| Interest bearing | 2.1 | 13,737 | 1,031,608 | – | 1,045,345 |
| Lease liabilities | 2.2 | 22,523 | 36,171 | 4,392 | 63,086 |
| Total | | 397,662 | 1,067,779 | 4,392 | 1,469,833 |
| 2019 | | | | | |
| Non-interest bearing | – | 309,760 | – | – | 309,760 |
| Interest bearing | 2.1 | 16,019 | 1,033,982 | – | 1,050,001 |
| Total | | 325,779 | 1,033,982 | – | 1,359,761 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(iv) Liquidity risk management (cont'd)

b) Financial assets (excluding derivatives)

The following table details the expected maturity for non-derivative financial assets. The inclusion of information on non-derivative financial assets is necessary in order to understand the Group's liquidity risk management as the Group's liquidity risk is managed on a net asset and liability basis.

| GROUP | Weighted average effective interest rate % | On demand or within 1 year S\$'000 | Within 2 to 5 years S\$'000 | After 5 years S\$'000 | Total S\$'000 |
|----------------------------------|--|------------------------------------|-----------------------------|-----------------------|-------------------|
| 2020 | | | | | |
| Non-interest bearing | – | 856,472 | 2,602 | – | 859,074 |
| Fixed deposits | 1.57 | 643 | – | – | 643 |
| Overseas Student Programme loans | 4.75 | 282 | 639 | – | 921 |
| Investments at FVTIE | – | 6,366,596 | 1,810,682 | 1,882,432 | 10,059,710 |
| Investments at FVTOCI | – | 2,153 | – | 51 | 2,204 |
| Total | | 7,226,146 | 1,813,923 | 1,882,483 | 10,922,552 |
| 2019 | | | | | |
| Non-interest bearing | – | 828,230 | 3,368 | – | 831,598 |
| Fixed deposits | 1.54 | 640 | – | – | 640 |
| Overseas Student Programme loans | 4.75 | 280 | 578 | – | 858 |
| Investments at FVTIE | – | 6,282,754 | 1,482,064 | 1,882,187 | 9,647,005 |
| Investments at FVTOCI | – | 3,155 | – | 2,148 | 5,303 |
| Total | | 7,115,059 | 1,486,010 | 1,884,335 | 10,485,404 |
| COMPANY | Weighted average effective interest rate % | On demand or within 1 year S\$'000 | Within 2 to 5 years S\$'000 | After 5 years S\$'000 | Total S\$'000 |
| 2020 | | | | | |
| Non-interest bearing | – | 814,030 | 7,602 | – | 821,632 |
| Fixed deposits | 1.57 | 643 | – | – | 643 |
| Overseas Student Programme loans | 4.75 | 282 | 639 | – | 921 |
| Investments at FVTIE | – | 6,366,596 | 1,810,682 | 1,882,432 | 10,059,710 |
| Investments at FVTOCI | – | 1,596 | – | – | 1,596 |
| Total | | 7,183,147 | 1,818,923 | 1,882,432 | 10,884,502 |
| 2019 | | | | | |
| Non-interest bearing | – | 799,526 | 3,368 | – | 802,894 |
| Fixed deposits | 1.54 | 640 | – | – | 640 |
| Overseas Student Programme loans | 4.75 | 280 | 578 | – | 858 |
| Investments at FVTIE | – | 6,282,754 | 1,482,064 | 1,882,187 | 9,647,005 |
| Investments at FVTOCI | – | 2,673 | – | – | 2,673 |
| Total | | 7,085,873 | 1,486,010 | 1,882,187 | 10,454,070 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(iv) Liquidity risk management (cont'd)

b) Financial assets (excluding derivatives) (cont'd)

Investments at fair value through income or expenditure (FVTIE) are actively managed on a portfolio basis by the Group's Investment Office. The categorisation is in accordance with the disclosure requirements of FRS 107. The Investment Office manages these investments under the long term asset allocation policy described in Note 4 (b) financial risk management policies and objectives.

c) Derivative financial instruments

The following table details the liquidity analysis for derivative financial instruments. The fair value of the forward exchange contracts is estimated by determining the difference between the contractual forward price and the forward price at the end of the reporting period for the residual period to maturity of the contract.

| GROUP AND COMPANY | On demand or within 1 year S\$'000 |
|-------------------------------------|------------------------------------|
| 2020 | |
| Forward foreign exchange contracts: | |
| Assets | 2,327 |
| Liabilities | (88,360) |
| Options: | |
| Assets | 161 |
| Liabilities | – |
| Futures: | |
| Assets | 4,400 |
| Liabilities | (1,851) |
| 2019 | |
| Forward foreign exchange contracts: | |
| Assets | 2,423 |
| Liabilities | (8,757) |
| Options: | |
| Assets | 47 |
| Liabilities | (30) |
| Futures: | |
| Assets | 667 |
| Liabilities | (2,923) |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

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FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(v) Counterparty and credit risk management

Credit risk refers to the risk that a counterparty will default on its contractual obligations resulting in financial loss to the Group.

The Group develops and maintains its credit risk gradings to categorise exposures according to their degree of risk of default. The Group uses its own records to rate its major customers and other debtors.

The Group's current credit risk grading framework comprises the following categories:

| Category | Description | Basis for recognising expected credit losses (ECL) |
|------------|---|---|
| Performing | The counterparty has a low risk of default and does not have any past-due amounts. | 12-month ECL (A simplified approach in measuring loss allowance based on lifetime ECL is allowed for trade receivables) |
| Doubtful | Amount is >30 days past due or there has been a significant increase in credit risk since initial recognition. | Lifetime ECL – not credit-impaired |
| In default | Amount is >90 days past due or there is evidence indicating the asset is credit-impaired. | Lifetime ECL – credit-impaired |
| Write-off | There is evidence indicating that the debtor is in severe financial difficulty and the Group has no realistic prospect of recovery. | Amount is written off |

The table below details the credit quality of the Group's financial assets as well as maximum exposure to credit risk by credit risk rating grades:

| GROUP | Note | Internal credit rating | 12-month or lifetime ECL | Gross carrying amount S\$'000 | Loss allowance S\$'000 | Net carrying amount S\$'000 |
|---------------|------|------------------------|------------------------------------|----------------------------------|---------------------------|--------------------------------|
| 2020 | | | | | | |
| Debtors | 17 | (i) | Lifetime ECL (simplified approach) | 685,607 | (395) | 685,212 |
| Student loans | 15 | (i) | Lifetime ECL (simplified approach) | 4,899 | (15) | 4,884 |
| Deposits paid | 18 | Performing | 12-month ECL | 691 | – | 691 |
| | | | | | (410) | |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(v) Counterparty and credit risk management (cont'd)

| GROUP | Note | Internal credit rating | 12-month or lifetime ECL | Gross carrying amount S\$'000 | Loss allowance S\$'000 | Net carrying amount S\$'000 |
|--|------|------------------------|------------------------------------|----------------------------------|---------------------------|--------------------------------|
| 2019 | | | | | | |
| Debtors | 17 | (i) | Lifetime ECL (simplified approach) | 611,525 | (304) | 611,221 |
| Student loans | 15 | (i) | Lifetime ECL (simplified approach) | 5,983 | (51) | 5,932 |
| Deposits paid | 18 | Performing | 12-month ECL | 1,069 | – | 1,069 |
| | | | | | (355) | |
| COMPANY | | | | | | |
| COMPANY | Note | Internal credit rating | 12-month or lifetime ECL | Gross carrying amount S\$'000 | Loss allowance S\$'000 | Net carrying amount S\$'000 |
| 2020 | | | | | | |
| Debtors | 17 | (i) | Lifetime ECL (simplified approach) | 676,637 | (391) | 676,246 |
| Student loans | 15 | (i) | Lifetime ECL (simplified approach) | 4,899 | (15) | 4,884 |
| Deposits paid | 18 | Performing | 12-month ECL | 691 | – | 691 |
| Amount owing from subsidiary companies | 16 | Performing | 12-month ECL | 4 | – | 4 |
| | | | | | (406) | |
| 2019 | | | | | | |
| Debtors | 17 | (i) | Lifetime ECL (simplified approach) | 606,338 | (301) | 606,037 |
| Student loans | 15 | (i) | Lifetime ECL (simplified approach) | 5,983 | (51) | 5,932 |
| Deposits paid | 18 | Performing | 12-month ECL | 887 | – | 887 |
| Amount owing from subsidiary companies | 16 | Performing | 12-month ECL | 880 | – | 880 |
| | | | | | (352) | |

- (i) For debtors and students loans, the Group and the Company has applied the simplified approach in FRS 9 to measure the loss allowance at lifetime ECL. The Group and the Company determine the expected credit losses on these items by using a provision matrix, estimated based on historical credit loss experience based on the past due status of the debtors, adjusted as appropriate to reflect current conditions and estimates of future economic conditions. Accordingly, the credit risk profile of these assets is presented based on their past due status in terms of the provision matrix. Notes 15 and 17 include further details on the loss allowance for these assets respectively.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

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4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT *(cont'd)*

b) Financial risk management policies and objectives *(cont'd)*

(v) Counterparty and credit risk management *(cont'd)*

The Group has no significant concentration of credit risk. Measures are in place to ensure that loans or debts are collected on a timely basis. Cash and fixed deposits are held with creditworthy financial institutions.

For investments, the Group has adopted a risk capital based methodology for limiting counterparty exposure. The Group will only transact with counterparties with a minimum credit rating of at least an A- credit rating by Standard & Poor's and Fitch and A3 credit rating by Moody's.

The maximum exposure to credit risk in the event that the counterparties fail to perform their obligations as at the end of the financial year in relation to each class of recognised financial assets is the carrying amount of those assets as stated in the statement of financial position.

The Group has also adopted procedures in extending credit terms to customers and in monitoring its credit risk for miscellaneous sales. The Group only grants credit to creditworthy customers based on the credit evaluation process performed by Management.

Collateral held

Forwards foreign exchange contracts transactions are entered into under International Derivatives Swap and Dealers Association (ISDA) master netting agreements.

The Group receives and gives collateral in the form of cash and Treasury notes.

The following table shows the fair value of collateral accepted by the Group as at end of the financial year.

| | 2020 S\$'000 | 2019 S\$'000 |
|---|-----------------|-----------------|
| Fair value of collateral given out in the form of cash and Treasury Notes | 69,611 | – |

The above collateral is subject to the standard industry terms of ISDA's Credit Support Annex (CSA).

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT *(cont'd)*

b) Financial risk management policies and objectives *(cont'd)*

(vi) Fair value of financial assets and liabilities

The carrying amounts of short-term financial assets and liabilities approximate their respective fair values due to the relatively short term maturity of these financial instruments. The fair values of other classes of financial assets and liabilities are disclosed in the respective notes to the financial statements.

The Group's valuation policy and procedures sets out the valuation methodologies and assumptions to be adopted for all investments. Management reviews for reasonableness of the valuation policy and procedures on a regular basis.

The following describes the hierarchy of inputs used to measure the fair value and the primary valuation methodologies used by the Group for investments measured at fair value on a recurring basis. The three levels of inputs are as follows:

- Level 1 inputs are based on quoted prices (unadjusted) from active markets for identical assets or liabilities that can be accessed at the measurement date. Prices are generally obtained from relevant exchange or dealer markets.
- Level 2 inputs are inputs other than quoted prices included within Level 1 that are observable for the asset or liability, either directly or indirectly. Inputs are obtained from various sources including market participants, dealers, fund managers and brokers.
- Level 3 inputs are unobservable inputs used to derive the value for the asset or liability. Assets included in this category are generally funds, of which the price is unobservable and fair value is based on ownership interest in the net asset value of the total fund determined by the fund managers. Level 3 consists primarily of the Group's ownerships in alternative investments, principally limited partnership interest in private equity, real estate and other similar funds.

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4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT *(cont'd)*

b) Financial risk management policies and objectives *(cont'd)*

(vi) Fair value of financial assets and liabilities *(cont'd)*

Financial instruments carried at fair value as at the end of the reporting period:

| 2020 | | | | | |
|---|------|--------------------|--------------------|--------------------|-------------------|
| GROUP | Note | Level 1 S\$'000 | Level 2 S\$'000 | Level 3 S\$'000 | Total S\$'000 |
| Financial assets: | | | | | |
| Investments at FVTOCI | | | | | |
| Equity securities | | 801 | 1,403 | – | 2,204 |
| Sub-total | 12 | 801 | 1,403 | – | 2,204 |
| Investments at FVTIE | | | | | |
| Government bonds and debt securities | | 2,151,840 | 7,119 | – | 2,158,959 |
| Equity securities | | 1,268,051 | 709,691 | 5,923,009 | 7,900,751 |
| Sub-total | 13 | 3,419,891 | 716,810 | 5,923,009 | 10,059,710 |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | 2,327 | – | 2,327 |
| Options | | 161 | – | – | 161 |
| Futures | | 4,400 | – | – | 4,400 |
| Sub-total | 14 | 4,561 | 2,327 | – | 6,888 |
| Total | | 3,425,253 | 720,540 | 5,923,009 | 10,068,802 |
| Financial liabilities: | | | | | |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | (88,360) | – | (88,360) |
| Futures | | (1,851) | – | – | (1,851) |
| Total | 14 | (1,851) | (88,360) | – | (90,211) |

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4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT *(cont'd)*

b) Financial risk management policies and objectives *(cont'd)*

(vi) Fair value of financial assets and liabilities *(cont'd)*

Financial instruments carried at fair value as at the end of the reporting period: *(cont'd)*

| 2019 | | | | | |
|---|------|--------------------|--------------------|--------------------|------------------|
| GROUP | Note | Level 1 S\$'000 | Level 2 S\$'000 | Level 3 S\$'000 | Total S\$'000 |
| Financial assets: | | | | | |
| Investments at FVTOCI | | | | | |
| Equity securities | | 482 | 2,113 | 2,708 | 5,303 |
| Sub-total | 12 | 482 | 2,113 | 2,708 | 5,303 |
| Investments at FVTIE | | | | | |
| Government bonds and debt securities | | 1,787,172 | – | – | 1,787,172 |
| Equity securities | | 1,258,030 | 754,973 | 5,846,830 | 7,859,833 |
| Sub-total | 13 | 3,045,202 | 754,973 | 5,846,830 | 9,647,005 |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | 2,423 | – | 2,423 |
| Options | | 47 | – | – | 47 |
| Futures | | 667 | – | – | 667 |
| Sub-total | 14 | 714 | 2,423 | – | 3,137 |
| Total | | 3,046,398 | 759,509 | 5,849,538 | 9,655,445 |
| Financial liabilities: | | | | | |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | (8,757) | – | (8,757) |
| Options | | (30) | – | – | (30) |
| Futures | | (2,923) | – | – | (2,923) |
| Total | 14 | (2,953) | (8,757) | – | (11,710) |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(vi) Fair value of financial assets and liabilities (cont'd)

Financial instruments carried at fair value as at the end of the reporting period: (cont'd)

| 2020 | | | | | |
|---|------|--------------------|--------------------|--------------------|-------------------|
| COMPANY | Note | Level 1 S\$'000 | Level 2 S\$'000 | Level 3 S\$'000 | Total S\$'000 |
| Financial assets: | | | | | |
| Investments at FVTOCI | | | | | |
| Equity securities | | – | 1,596 | – | 1,596 |
| Sub-total | 12 | – | 1,596 | – | 1,596 |
| Investments at FVTIE | | | | | |
| Government bonds and debt securities | | 2,151,840 | 7,119 | – | 2,158,959 |
| Equity securities | | 1,268,051 | 709,691 | 5,923,009 | 7,900,751 |
| Sub-total | 13 | 3,419,891 | 716,810 | 5,923,009 | 10,059,710 |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | 2,327 | – | 2,327 |
| Options | | 161 | – | – | 161 |
| Futures | | 4,400 | – | – | 4,400 |
| Sub-total | 14 | 4,561 | 2,327 | – | 6,888 |
| Total | | 3,424,452 | 720,733 | 5,923,009 | 10,068,194 |
| Financial liabilities: | | | | | |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | (88,360) | – | (88,360) |
| Futures | | (1,851) | – | – | (1,851) |
| Total | 14 | (1,851) | (88,360) | – | (90,211) |

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4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(vi) Fair value of financial assets and liabilities (cont'd)

Financial instruments carried at fair value as at the end of the reporting period: (cont'd)

| 2019 | | | | | |
|---|------|--------------------|--------------------|--------------------|------------------|
| COMPANY | Note | Level 1 S\$'000 | Level 2 S\$'000 | Level 3 S\$'000 | Total S\$'000 |
| Financial assets: | | | | | |
| Investments at FVTOCI | | | | | |
| Equity securities | | – | 2,113 | 560 | 2,673 |
| Sub-total | 12 | – | 2,113 | 560 | 2,673 |
| Investments at FVTIE | | | | | |
| Government bonds and debt securities | | 1,787,172 | – | – | 1,787,172 |
| Equity securities | | 1,258,030 | 754,973 | 5,846,830 | 7,859,833 |
| Sub-total | 13 | 3,045,202 | 754,973 | 5,846,830 | 9,647,005 |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | 2,423 | – | 2,423 |
| Options | | 47 | – | – | 47 |
| Futures | | 667 | – | – | 667 |
| Sub-total | 14 | 714 | 2,423 | – | 3,137 |
| Total | | 3,045,916 | 759,509 | 5,847,390 | 9,652,815 |
| Financial liabilities: | | | | | |
| Derivative financial instruments | | | | | |
| Forward foreign exchange contracts | | – | (8,757) | – | (8,757) |
| Options | | (30) | – | – | (30) |
| Futures | | (2,923) | – | – | (2,923) |
| Total | 14 | (2,953) | (8,757) | – | (11,710) |

The Group reviews its valuation policy yearly.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

4 FINANCIAL INSTRUMENTS, FINANCIAL RISKS AND CAPITAL RISK MANAGEMENT (cont'd)

b) Financial risk management policies and objectives (cont'd)

(vi) Fair value of financial assets and liabilities (cont'd)

Movements of the Level 3 financial assets during the reporting period

| | GROUP | COMPANY |
|---|------------------|------------------|
| | S\$'000 | S\$'000 |
| Fair value as at 1 April 2019 | 5,849,538 | 5,847,390 |
| Total loss on sale – included in Income or Expenditure | (571) | (571) |
| Change in Fair Value – included in Income or Expenditure | (5,034) | (5,034) |
| Purchases during the year | 1,429,695 | 1,429,451 |
| Sales during the year | (1,350,619) | (1,348,227) |
| Fair value as at 31 March 2020 | 5,923,009 | 5,923,009 |
| Fair value as at 1 April 2018 | 5,498,160 | 5,496,138 |
| Total gain on sale – included in Income or Expenditure | 24,536 | 24,536 |
| Change in Fair Value – included in Income or Expenditure | 264,423 | 263,965 |
| Change in Fair Value – included in Other Comprehensive Income | (1,111) | (1,111) |
| Impairment loss | (508) | - |
| Purchases during the year | 1,875,471 | 1,874,864 |
| Sales during the year | (1,811,433) | (1,811,002) |
| Fair value as at 31 March 2019 | 5,849,538 | 5,847,390 |

c) Capital risk management policies and objectives

The Group reviews its capital structure at least annually to ensure that the Group will be able to continue as a going concern. The capital structure of the Group comprises reserves as disclosed in Notes 25 and 26 and borrowings disclosed in Note 23. The Group is required to maintain a ratio where the total liabilities to total assets shall not at any time be more than 0.65:1. The Group is in compliance with externally imposed capital requirements for the reporting period ended 31 March 2020 and 2019. The Group's overall strategy remains unchanged from 2019.

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

5 SUBSIDIARY COMPANIES

| | COMPANY | |
|--------------------------------|---------|---------|
| | 2020 | 2019 |
| | S\$'000 | S\$'000 |
| Unquoted equity shares at cost | 228 | 228 |
| Impairment loss | (100) | (100) |
| Carrying amount | 128 | 128 |

| Name of company | Principal Activities | Country of incorporation (or registration) and operation | Share Capital | Proportion of ownership interest and voting power held | |
|--|---|--|---------------|--|------|
| | | | | S\$ | 2020 |
| Singapore University Press Pte Ltd ^(a) | Publisher | Singapore | 100,001 | 100% | 100% |
| NUS Technology Holdings Pte Ltd ^(a) | To carry out research and development, to own and exploit all forms of intellectual property interests and to engage in the acquisition, dissemination and transfer of technologies. | Singapore | 2 | 100% | 100% |
| NUS High School of Mathematics and Science ^(a) | To promote and undertake the advancement of education, with particular emphasis on mathematics and science at secondary and junior college levels and to participate in schemes established to promote research, development and education, in particular in relation to mathematics and science and to a high school for that purpose. | Singapore | # | # | # |
| NUS America, Inc ^(c) | This is a non-profit public benefit corporation organised under the Non-profit Public Corporation Law for public and charitable purposes. It performs the functions of or to carry out the purposes of the National University of Singapore. | United States of America | # | # | # |
| Suzhou NUSRI Management Co Ltd ^(d) | To manage NUS Research Institute (Suzhou) | People's Republic of China | 128,380 | 100% | 100% |
| Singapore International Mediation Institute Limited ^(a) | Set standards and provide accreditation for mediators | Singapore | # | # | # |
| Graduate Investment Pte Ltd | Hold the investments arising from the Graduate Research Innovation Programme (GRIP) on behalf of NUS. | Singapore | 10 | 100% | 100% |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

5 SUBSIDIARY COMPANIES (cont'd)

| Name of company | Principal Activities | Country of incorporation (or registration) and operation | Share Capital S\$ | Proportion of ownership interest and voting power held | |
|--|---|--|----------------------|--|------|
| | | | | 2020 | 2019 |
| Held by Subsidiaries | | | | | |
| NUS Press Pte Ltd ^(a) | Publishers | Singapore | 100,000 | 100% | 100% |
| NUS Ventures Pte Ltd ^(a) | Provide mentoring and financial support to startup companies. | Singapore | 100,000 | 100% | 100% |
| Shanghai NUS Enterprise Services Co Ltd ^(d) | Sourcing of student internship opportunities with Shanghai companies and developing increased research opportunities and forging closer partnerships. | People's Republic of China | 237,440 | 100% | 100% |
| KR Consulting Pte Ltd ^(a) | Provide consulting services | Singapore | 1 | 100% | 100% |
| Star Incubator Sdn Bhd ^{(b),(e)} | Management of incubator activities | Brunei Darussalam | 100 | 100% | 100% |

These corporations do not have share capital. NUS High School of Mathematics and Science and Singapore International Mediation Institute Limited are companies limited by guarantee.

(a) Audited by Deloitte & Touche LLP, Singapore.

(b) Audited by overseas practices of Deloitte & Touche LLP.

(c) Not required to be audited in country of incorporation.

(d) Audited by other auditors in country of incorporation.

(e) Star Incubator Sdn Bhd is in the process of winding up.

6 ASSOCIATED COMPANIES

| | GROUP | | COMPANY | |
|---|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Unquoted equity shares at cost | 77,930 | 77,530 | 77,930 | 77,530 |
| Share of post-acquisition profits, net of dividend received | 82,405 | 62,233 | – | – |
| Impairment loss | – | – | (12,640) | (11,412) |
| | 160,335 | 139,763 | 65,290 | 66,118 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

6 ASSOCIATED COMPANIES (cont'd)

| Name of company | Principal Activities | Country of incorporation (or registration) and operation | Proportion of ownership interest and voting power held | |
|--|--|--|--|------|
| | | | 2020 | 2019 |
| National University Health System Pte Ltd ^(a) | Clinical service, education and research | Singapore | 33% | 33% |
| InVivos Pte Ltd ^(a) | To carry on the business of an animal breeding centre and the provision of related services in support of biomedical research. | Singapore | 25% | 25% |
| Dwell Capital Ltd ^(a) | Investment holding in property companies | Singapore | 25% | 25% |

(a) Audited by other auditors.

Summarised financial information in respect of the Group's associates is set out below:

| | 2020 S\$'000 | 2019 S\$'000 |
|---|-----------------|-----------------|
| Total assets | 3,751,017 | 3,454,851 |
| Total liabilities | (2,306,059) | (2,244,982) |
| Net assets | 1,444,958 | 1,209,869 |
| Total equity attributable to equity holders | 506,413 | 416,808 |

Aggregate information about the Group's associated companies that are not individually material and unadjusted for its proportionate share of ownership interest are as follows:

| | 2020 S\$'000 | 2019 S\$'000 |
|-------------------------------|-----------------|-----------------|
| Profit after tax for the year | 53,848 | 36,572 |
| Other comprehensive income | – | – |
| Total comprehensive income | 53,848 | 36,572 |

During the year ended 31 March 2020, the Group's share of results of associated companies are amounting to S\$20,172,000 (2019 : S\$7,741,000).

7 INVESTMENT IN JOINT OPERATION

The Company has a joint arrangement with Science and Engineering Institutes (SCEI) to jointly operate The Technology Centre for Offshore and Marine, Singapore Ltd ("TCOMS Ltd"). SCEI is a wholly-owned subsidiary of the Agency for Science, Technology and Research. TCOMS Ltd is incorporated in Singapore as a company limited by guarantee to conduct Research & Development, commercial testing, and manpower training and education in the area of marine and offshore.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

8 FIXED ASSETS

GROUP

| | Freehold Land | Leasehold Land | Buildings | Leasehold Improvements | Infrastructure | Equipment, Furniture & Fittings, Library Materials | Artifacts | Capital Work-in-Progress | Total |
|---------------------------------|---------------|----------------|-----------|------------------------|----------------|--|-----------|--------------------------|-----------|
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| COST | | | | | | | | | |
| At 1 April 2018 | 2,007 | 321,174 | 3,417,413 | 1,248,360 | 39,490 | 2,227,412 | 30,983 | 175,885 | 7,462,724 |
| Additions | – | – | 48,089 | 30,640 | 1,840 | 81,828 | 214 | 164,818 | 327,429 |
| Transfers | – | – | 71,023 | 27,380 | – | 17,731 | – | (116,134) | – |
| Disposals | – | – | (1,178) | – | – | (329,119) | – | – | (330,297) |
| Cost adjustment | – | – | (120) | (609) | – | (2,808) | – | (237) | (3,774) |
| At 31 March 2019 | 2,007 | 321,174 | 3,535,227 | 1,305,771 | 41,330 | 1,995,044 | 31,197 | 224,332 | 7,456,082 |
| Adoption of FRS 116 (Note 2) | – | (321,174) | – | – | – | – | – | – | (321,174) |
| At 1 April 2019 (restated) | 2,007 | – | 3,535,227 | 1,305,771 | 41,330 | 1,995,044 | 31,197 | 224,332 | 7,134,908 |
| Additions | – | – | 41,590 | 32,664 | – | 92,229 | 161 | 162,834 | 329,478 |
| Transfers | – | – | 124,933 | 13,354 | – | 30,143 | – | (168,430) | – |
| Disposals | – | – | (4,730) | (2,394) | – | (74,720) | – | – | (81,844) |
| Cost adjustment | – | – | (1) | (281) | – | (28,121) | (30) | (1,676) | (30,109) |
| At 31 March 2020 | 2,007 | – | 3,697,019 | 1,349,114 | 41,330 | 2,014,575 | 31,328 | 217,060 | 7,352,433 |
| ACCUMULATED DEPRECIATION | | | | | | | | | |
| At 1 April 2018 | – | 70,436 | 1,386,063 | 777,828 | 4,758 | 1,745,843 | – | – | 3,984,928 |
| Depreciation | – | 6,151 | 101,921 | 86,441 | 713 | 153,116 | – | – | 348,342 |
| Transfers | – | – | (40) | (1,422) | – | 1,462 | – | – | – |
| Disposals | – | – | (1,065) | – | – | (328,103) | – | – | (329,168) |
| Cost adjustment | – | – | (14) | (34) | – | (1,233) | – | – | (1,281) |
| At 31 March 2019 | – | 76,587 | 1,486,865 | 862,813 | 5,471 | 1,571,085 | – | – | 4,002,821 |
| Adoption of FRS 116 (Note 2) | – | (76,587) | – | – | – | – | – | – | (76,587) |
| At 1 April 2019 (restated) | – | – | 1,486,865 | 862,813 | 5,471 | 1,571,085 | – | – | 3,926,234 |
| Depreciation | – | – | 107,003 | 83,314 | 750 | 147,269 | – | – | 338,336 |
| Transfers | – | – | (197) | (483) | – | 680 | – | – | – |
| Disposals | – | – | (4,424) | (2,214) | – | (72,061) | – | – | (78,699) |
| Cost adjustment | – | – | – | (30) | – | (20,331) | – | – | (20,361) |
| At 31 March 2020 | – | – | 1,589,247 | 943,400 | 6,221 | 1,626,642 | – | – | 4,165,510 |
| CARRYING AMOUNT | | | | | | | | | |
| At 31 March 2020 | 2,007 | – | 2,107,772 | 405,714 | 35,109 | 387,933 | 31,328 | 217,060 | 3,186,923 |
| At 1 April 2019 (Restated) | 2,007 | – | 2,048,362 | 442,958 | 35,859 | 423,959 | 31,197 | 224,332 | 3,208,674 |
| At 31 March 2019 | 2,007 | 244,587 | 2,048,362 | 442,958 | 35,859 | 423,959 | 31,197 | 224,332 | 3,453,261 |

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8 FIXED ASSETS (cont'd)

COMPANY

| | Freehold Land | Leasehold Land | Buildings | Leasehold Improvements | Infrastructure | Equipment, Furniture & Fittings, Library Materials | Artifacts | Capital Work-in-Progress | Total |
|---------------------------------|---------------|----------------|-----------|------------------------|----------------|--|-----------|--------------------------|-----------|
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| COST | | | | | | | | | |
| At 1 April 2018 | 2,007 | 321,174 | 3,416,708 | 1,247,328 | 39,490 | 2,220,462 | 30,983 | 175,885 | 7,454,037 |
| Additions | – | – | 48,089 | 30,640 | 1,840 | 81,080 | 214 | 164,818 | 326,681 |
| Transfers | – | – | 71,023 | 27,380 | – | 17,731 | – | (116,134) | – |
| Disposals | – | – | (1,178) | – | – | (329,092) | – | – | (330,270) |
| Cost adjustment | – | – | (120) | (609) | – | (2,808) | – | (237) | (3,774) |
| At 31 March 2019 | 2,007 | 321,174 | 3,534,522 | 1,304,739 | 41,330 | 1,987,373 | 31,197 | 224,332 | 7,446,674 |
| Adoption of FRS 116 (Note 2) | – | (321,174) | – | – | – | – | – | – | (321,174) |
| At 1 April 2019 (restated) | 2,007 | – | 3,534,522 | 1,304,739 | 41,330 | 1,987,373 | 31,197 | 224,332 | 7,125,500 |
| Additions | – | – | 41,590 | 32,618 | – | 92,110 | 161 | 162,587 | 329,066 |
| Transfers | – | – | 124,933 | 13,354 | – | 30,143 | – | (168,430) | – |
| Disposals | – | – | (4,730) | (2,394) | – | (74,421) | – | – | (81,545) |
| Cost adjustment | – | – | (1) | (281) | – | (28,121) | (30) | (1,676) | (30,109) |
| At 31 March 2020 | 2,007 | – | 3,696,314 | 1,348,036 | 41,330 | 2,007,084 | 31,328 | 216,813 | 7,342,912 |
| ACCUMULATED DEPRECIATION | | | | | | | | | |
| At 1 April 2018 | – | 70,436 | 1,385,769 | 777,085 | 4,758 | 1,740,248 | – | – | 3,978,296 |
| Depreciation | – | 6,151 | 101,898 | 86,338 | 713 | 152,638 | – | – | 347,738 |
| Transfers | – | – | (40) | (1,422) | – | 1,462 | – | – | – |
| Disposals | – | – | (1,065) | – | – | (328,076) | – | – | (329,141) |
| Cost adjustment | – | – | (14) | (34) | – | (1,233) | – | – | (1,281) |
| At 31 March 2019 | – | 76,587 | 1,486,548 | 861,967 | 5,471 | 1,565,039 | – | – | 3,995,612 |
| Adoption of FRS 116 (Note 2) | – | (76,587) | – | – | – | – | – | – | (76,587) |
| At 1 April 2019 (restated) | – | – | 1,486,548 | 861,967 | 5,471 | 1,565,039 | – | – | 3,919,025 |
| Depreciation | – | – | 106,979 | 83,212 | 750 | 146,842 | – | – | 337,783 |
| Transfers | – | – | (197) | (483) | – | 680 | – | – | – |
| Disposals | – | – | (4,424) | (2,214) | – | (71,808) | – | – | (78,446) |
| Cost adjustment | – | – | – | (30) | – | (20,331) | – | – | (20,361) |
| At 31 March 2020 | – | – | 1,588,906 | 942,452 | 6,221 | 1,620,422 | – | – | 4,158,001 |
| CARRYING AMOUNT | | | | | | | | | |
| At 31 March 2020 | 2,007 | – | 2,107,408 | 405,584 | 35,109 | 386,662 | 31,328 | 216,813 | 3,184,911 |
| At 1 April 2019 (Restated) | 2,007 | – | 2,047,974 | 442,772 | 35,859 | 422,334 | 31,197 | 224,332 | 3,206,475 |
| At 31 March 2019 | 2,007 | 244,587 | 2,047,974 | 442,772 | 35,859 | 422,334 | 31,197 | 224,332 | 3,451,062 |

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

8 FIXED ASSETS (cont'd)

During the financial year, the Group acquired fixed assets amounting to S\$329,478,000 (2019: S\$327,429,000), out of which S\$327,303,000 (2019: S\$326,651,000) was paid by cash. The remaining balance represents donated assets and other non-cash items.

9 RIGHT-OF-USE ASSETS

GROUP AND COMPANY

| | Leasehold Land S\$'000 | Properties S\$'000 | Equipment S\$'000 | Total S\$'000 |
|-----------------------------------|---------------------------|-----------------------|----------------------|------------------|
| COST | | | | |
| At 1 April 2019 and 31 March 2020 | 321,174 | 66,323 | 15,885 | 403,382 |
| ACCUMULATED AMORTISATION | | | | |
| At 1 April 2019 | 76,587 | – | – | 76,587 |
| Additions | 6,151 | 15,815 | 6,655 | 28,621 |
| At 31 March 2020 | 82,738 | 15,815 | 6,655 | 105,208 |
| CARRYING AMOUNT | | | | |
| At 31 March 2020 | 238,436 | 50,508 | 9,230 | 298,174 |

The Group leases several assets including leasehold land, properties and equipment. The average lease terms are 55 years for leasehold land, 4 years for properties and 2 years for equipment.

10 INVESTMENT PROPERTIES

| | GROUP AND COMPANY | |
|---|-------------------|-------------|
| | S\$'000 | |
| Statements of Financial Position: | | |
| At 1 April 2018 | | 41,463 |
| Fair value changes | | 3,406 |
| At 31 March and 1 April 2019 | | 44,869 |
| Fair value changes | | 1,005 |
| At 31 March 2020 | | 45,874 |
| GROUP AND COMPANY | | |
| | 2020 | 2019 |
| | S\$'000 | S\$'000 |
| Statements of Comprehensive Income: | | |
| Rental income from investment properties: | | |
| – Minimum lease payments | 702 | 641 |
| | 702 | 641 |
| Direct operating expenses (including repairs and maintenance) arising from: | | |
| – Rental generating expenses | 202 | 189 |
| | 202 | 189 |

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10 INVESTMENT PROPERTIES (cont'd)

The Group has no restrictions on the realisability of its investment properties and no contractual obligations to purchase, construct or develop investment properties or for repairs, maintenance or enhancements.

Valuation of investment properties

The fair value measurement for investment properties is categorised under Level 2 of the fair value hierarchy. The valuation of investment properties are based on comparable market transactions that consider sales of similar properties that have been transacted in open market.

11 INTANGIBLE ASSETS

GROUP

| | Computer Software S\$'000 | Purchased Curriculum S\$'000 | Total S\$'000 |
|---------------------------------|---------------------------------|------------------------------------|------------------|
| COST | | | |
| At 1 April 2018 | 45,561 | 11,998 | 57,559 |
| Additions | 3,996 | – | 3,996 |
| Disposals | (788) | – | (788) |
| Cost adjustment | (276) | – | (276) |
| At 31 March and 1 April 2019 | 48,493 | 11,998 | 60,491 |
| Additions | 4,867 | – | 4,867 |
| Disposals | (671) | – | (671) |
| Cost adjustment | (8) | – | (8) |
| At 31 March 2020 | 52,681 | 11,998 | 64,679 |
| ACCUMULATED AMORTISATION | | | |
| At 1 April 2018 | 34,954 | 11,960 | 46,914 |
| Amortisation | 3,672 | 24 | 3,696 |
| Disposals | (725) | – | (725) |
| Cost adjustment | (46) | – | (46) |
| At 31 March and 1 April 2019 | 37,855 | 11,984 | 49,839 |
| Amortisation | 3,927 | 14 | 3,941 |
| Disposals | (634) | – | (634) |
| Cost adjustment | – | – | – |
| At 31 March 2020 | 41,148 | 11,998 | 53,146 |
| CARRYING AMOUNT | | | |
| At 31 March 2020 | 11,533 | – | 11,533 |
| At 31 March 2019 | 10,638 | 14 | 10,652 |

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

11 INTANGIBLE ASSETS (cont'd)

| COMPANY | Computer Software | Purchased Curriculum | Total |
|---------------------------------|-------------------|----------------------|---------|
| | S\$'000 | S\$'000 | S\$'000 |
| COST | | | |
| At 1 April 2018 | 45,031 | 11,998 | 57,029 |
| Additions | 3,996 | – | 3,996 |
| Disposals | (788) | – | (788) |
| Cost adjustment | (276) | – | (276) |
| At 31 March and 1 April 2019 | 47,963 | 11,998 | 59,961 |
| Additions | 4,867 | – | 4,867 |
| Disposals | (671) | – | (671) |
| Cost adjustment | (8) | – | (8) |
| At 31 March 2020 | 52,151 | 11,998 | 64,149 |
| ACCUMULATED AMORTISATION | | | |
| At 1 April 2018 | 34,425 | 11,960 | 46,385 |
| Amortisation | 3,671 | 24 | 3,695 |
| Disposals | (725) | – | (725) |
| Cost adjustment | (46) | – | (46) |
| At 31 March and 1 April 2019 | 37,325 | 11,984 | 49,309 |
| Amortisation | 3,927 | 14 | 3,941 |
| Disposals | (634) | – | (634) |
| Cost adjustment | – | – | – |
| At 31 March 2020 | 40,618 | 11,998 | 52,616 |
| CARRYING AMOUNT | | | |
| At 31 March 2020 | 11,533 | – | 11,533 |
| At 31 March 2019 | 10,638 | 14 | 10,652 |

Computer software includes computer software work-in-progress of S\$Nil (2019: S\$2,084,000) for the Group and Company, which amortisation is not provided for. The average remaining amortisation period of intangible assets is 2 years (2019: 2 years).

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

12 INVESTMENTS AT FAIR VALUE THROUGH OTHER COMPREHENSIVE INCOME (FVTOCI)

Investments at fair value through other comprehensive income (FVTOCI)

| | GROUP | | COMPANY | |
|----------------------------|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| AT FAIR VALUE | | | | |
| Unquoted equity securities | 1,403 | 4,821 | 1,596 | 2,673 |
| Quoted equity securities | 801 | 482 | – | – |
| | 2,204 | 5,303 | 1,596 | 2,673 |

The fair value of unquoted equity securities measured at FVTOCI is estimated based on the net asset values disclosed in the financial statements of the entities. The Group management has determined that the net asset values of these investments approximate its fair value.

13 INVESTMENTS AT FAIR VALUE THROUGH INCOME OR EXPENDITURE (FVTIE)

| | GROUP AND COMPANY | |
|----------------------------|-------------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 |
| AT FAIR VALUE | | |
| Quoted Government bonds | 2,021,680 | 1,649,458 |
| Quoted debt securities | 137,279 | 137,714 |
| Quoted equity securities | 1,019,431 | 964,559 |
| Unquoted equity securities | 6,881,320 | 6,895,274 |
| | 10,059,710 | 9,647,005 |

These investments are managed by the Investment Office of the Group. The fair values of quoted debt and equity securities are based on quoted market prices on the last business day of the reporting period. The investments in unquoted equity securities represent investments in private equity funds, hedge funds and other limited partnerships.

The fair values of these unquoted equity securities are based on net asset values provided by fund managers.

Under the terms of certain limited partnership agreements, the Group is obligated to make capital contributions upon receiving capital call notices from the fund managers. As at 31 March 2020, the Group has unfunded commitments of S\$3,372,108,000 (2019: S\$2,812,811,000).

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

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14 DERIVATIVE FINANCIAL INSTRUMENTS

| | GROUP AND COMPANY | | | | | |
|------------------------------------|-------------------------------|-------------------|------------------------|-------------------------------|-------------------|------------------------|
| | Notional Amount S\$'000 | 2020 | | Notional Amount S\$'000 | 2019 | |
| | | Assets S\$'000 | Liabilities S\$'000 | | Assets S\$'000 | Liabilities S\$'000 |
| Forward foreign exchange contracts | 2,331,290 | 2,327 | (88,360) | 3,555,144 | 2,423 | (8,757) |
| Options | 312 | 161 | – | 94 | 47 | (30) |
| Futures | 258,679 | 4,400 | (1,851) | 353,031 | 667 | (2,923) |
| | 2,590,281 | 6,888 | (90,211) | 3,908,269 | 3,137 | (11,710) |

Forward foreign exchange contracts are entered into for hedging purposes to manage currency risk of the investment portfolio. The notional amount is the value of the underlying assets of forward foreign exchange contracts.

15 STUDENT LOANS

| | GROUP AND COMPANY | |
|--|-------------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 |
| Notebook computer loans ^(a) | 110 | 169 |
| Overseas student programme loans ^(b) | 806 | 753 |
| Student assistance loans and in-house student loans ^(c) | 3,944 | 4,980 |
| Other student loans ^(d) | 24 | 30 |
| | 4,884 | 5,932 |
| Represented by: | | |
| Amount repayable within 12 months - current assets | 1,745 | 2,078 |
| Amount repayable after 12 months - non-current assets | 3,139 | 3,854 |
| | 4,884 | 5,932 |

(a) The interest-free notebook computer loans to students are repayable by monthly instalments, over periods of up to 2.5 years.

(b) The overseas student programme loans are repayable by monthly instalments over periods of up to 5 years. The interest at 4.75% (2019: 4.75%) per annum is based on average prime rate of the 3 major local banks.

(c) The student assistance loans and in-house student loans are interest-free and repayable by monthly instalments, over periods of up to 5 years.

(d) The other student loans are interest-free and repayable by yearly instalments, over periods of up to 6 years.

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15 STUDENT LOANS (cont'd)

Secured assets

The student loans are unsecured.

Fair values

The fair value of the loans (non-current portion) cannot be measured reliably as the timing of future cash flows is not fixed due to discretion exercised with regards to early repayment/defer repayment in view of prevailing student financial circumstances.

Credit risk

The maximum exposure to credit risk is the carrying amount of the loans.

Loss allowance for student loans has been measured at an amount equal to lifetime expected credit losses (ECL), individually assessed. The ECL on student loans are estimated by reference to past default experience of the students and an analysis of the students' current financial position, adjusted for factors that are specific to the students.

A student loan is written off when there is information indicating that the student is in severe financial difficulty and there is no realistic prospect of recovery.

The table below shows the movement in lifetime ECL that has been recognised for in accordance with the simplified approach set out in FRS 109:

| | GROUP AND COMPANY | |
|--|---|-----------------|
| | Individually assessed Lifetime ECL credit-impaired | |
| | 2020 S\$'000 | 2019 S\$'000 |
| Balance as at 1 April | 51 | 52 |
| Amounts written off during the year | (36) | (31) |
| Amounts recovered during the year | (9) | (6) |
| Increase in loss allowance recognised in income or expenditure | 9 | 36 |
| Balance as at 31 March | 15 | 51 |

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16 LONG-TERM LOAN TO SUBSIDIARY COMPANY AND AMOUNTS OWING FROM/TO SUBSIDIARY COMPANIES

The long-term loan to subsidiary company is unsecured, interest-free and not expected to be repaid within the next twelve months. The fair value of the long term loan cannot be measured reliably as the timing of future cash flows is not fixed. The amounts owing from/to subsidiaries are unsecured, interest-free and repayable on demand.

For the purpose of impairment assessment, the long term loan to subsidiary company and amounts owing from subsidiary companies are considered to have low credit risk and there has been no significant increase in credit risk of default since initial recognition. Accordingly, for the purpose of impairment assessment for these receivables, the loss allowance is measured at an amount equal to 12-month ECL.

In determining the ECL, management has taken into account the financial position of the subsidiary companies, adjusted for factors that are specific to these companies and general economic conditions of the industry in which these companies operate, in estimating the probability of default of the receivables as well as the loss upon default. Management determines the receivables from the subsidiary companies are subject to immaterial credit loss.

17 DEBTORS

| | GROUP | | COMPANY | |
|--------------------------------------|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Grants receivable | 500,729 | 518,983 | 496,178 | 516,763 |
| Trade debtors | 45,324 | 61,226 | 43,817 | 59,629 |
| Receivables from sale of investments | 109,686 | 6,061 | 109,686 | 6,061 |
| Interest receivable | 6,036 | 4,661 | 6,036 | 4,661 |
| Others | 23,437 | 20,290 | 20,529 | 18,923 |
| | 685,212 | 611,221 | 676,246 | 606,037 |

The average credit period of trade debtors is 30 days (2019: 30 days). No interest is charged on the trade receivables.

Loss allowance for trade debtors has been measured at an amount equal to lifetime expected credit losses (ECL). The ECL on trade debtors are estimated using a provision matrix by reference to past default experience of the debtor and an analysis of the debtor's current financial position, adjusted for factors that are specific to the debtors, general economic conditions of the industry in which the debtors operate. The Group has recognised a loss allowance of 4.05% (2019: 12.22%) against all receivables over 180 days past due because historical experience has indicated that there is reasonable assurance that receivables due are generally recoverable.

There has been no change in the estimation techniques or significant assumptions made during the current reporting period.

A trade debtor is written off when there is information indicating that the debtor is in severe financial difficulty and there is no realistic prospect of recovery.

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17 DEBTORS (cont'd)

The following table details the risk profile of trade debtors from contracts with customers based on the Group's provision matrix. NUS customer base consists of 2 main groups below. The historical credit loss experience shows significantly different loss patterns for the 2 customer segments:

- Ministries, Statutory Boards, Institutions of Higher Learning and Public Hospitals where receivables are mainly grants.
- Other debtors with a large number of small clients and trade debtors (including research grants, royalty income, recoverables and other miscellaneous income).

| | GROUP | | | | | Total S\$'000 |
|--|----------------------------|--------------------------|----------------------------|-----------------------------|---------------------------|------------------|
| | Not past due S\$'000 | < 3 months S\$'000 | 3 – 6 months S\$'000 | 6 – 12 months S\$'000 | > 12 months S\$'000 | |
| 31 March 2020 | | | | | | |
| <u>Public Sector, Statutory Boards, Institutions of Higher Learning and Public hospitals</u> | | | | | | |
| Expected credit loss rate | 0% | 0% | 0% | 0% | 0% | |
| Estimated total gross carrying amount at default | 544,466 | 1,490 | 1,439 | 11,172 | 227 | 558,794 |
| <u>Others</u> | | | | | | |
| Expected credit loss rate | 0.08% | 0.78% | 2.19% | 4.05% | 4.05% | |
| Estimated total gross carrying amount at default | 122,607 | 1,838 | 680 | 778 | 515 | 126,418 |
| Lifetime ECL | 98 | 14 | 15 | 32 | 21 | 180 |
| Individually assessed | – | – | – | – | 215 | 215 |
| Total loss allowance | | | | | | 395 |

| | GROUP | | | | | Total S\$'000 |
|--|----------------------------|--------------------------|----------------------------|-----------------------------|---------------------------|------------------|
| | Not past due S\$'000 | < 3 months S\$'000 | 3 – 6 months S\$'000 | 6 – 12 months S\$'000 | > 12 months S\$'000 | |
| 31 March 2019 | | | | | | |
| <u>Public Sector, Statutory Boards, Institutions of Higher Learning and Public hospitals</u> | | | | | | |
| Expected credit loss rate | 0% | 0% | 0% | 0% | 0% | |
| Estimated total gross carrying amount at default | 563,931 | 1,915 | 4,819 | 11,338 | 8,666 | 590,669 |
| <u>Others</u> | | | | | | |
| Expected credit loss rate | 0.10% | 0.58% | 3.49% | 12.22% | 12.22% | |
| Estimated total gross carrying amount at default | 17,105 | 1,964 | 601 | 541 | 341 | 20,552 |
| Lifetime ECL | 17 | 11 | 21 | 66 | 42 | 157 |
| Individually assessed | – | – | – | – | 147 | 147 |
| Total loss allowance | | | | | | 304 |

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FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

17 DEBTORS (cont'd)

| | COMPANY | | | | | Total S\$'000 |
|--|----------------------------|--------------------------|----------------------------|-----------------------------|---------------------------|------------------|
| | Not past due S\$'000 | < 3 months S\$'000 | 3 – 6 months S\$'000 | 6 – 12 months S\$'000 | > 12 months S\$'000 | |
| 31 March 2020 | | | | | | |
| <u>Public Sector, Statutory Boards, Institutions of Higher Learning and Public hospitals</u> | | | | | | |
| Expected credit loss rate | 0% | 0% | 0% | 0% | 0% | |
| Estimated total gross carrying amount at default | 539,915 | 1,490 | 1,439 | 11,172 | 227 | 554,243 |
| <u>Others</u> | | | | | | |
| Expected credit loss rate | 0.08% | 0.78% | 2.19% | 4.05% | 4.05% | |
| Estimated total gross carrying amount at default | 118,192 | 1,838 | 680 | 778 | 515 | 122,003 |
| Lifetime ECL | 94 | 14 | 15 | 32 | 21 | 176 |
| Individually assessed | – | – | – | – | 215 | 215 |
| Total loss allowance | | | | | | 391 |

| | COMPANY | | | | | Total S\$'000 |
|--|----------------------------|--------------------------|----------------------------|-----------------------------|---------------------------|------------------|
| | Not past due S\$'000 | < 3 months S\$'000 | 3 – 6 months S\$'000 | 6 – 12 months S\$'000 | > 12 months S\$'000 | |
| 31 March 2019 | | | | | | |
| <u>Public Sector, Statutory Boards, Institutions of Higher Learning and Public hospitals</u> | | | | | | |
| Expected credit loss rate | 0% | 0% | 0% | 0% | 0% | |
| Estimated total gross carrying amount at default | 561,711 | 1,915 | 4,819 | 11,338 | 8,666 | 588,449 |
| <u>Others</u> | | | | | | |
| Expected credit loss rate | 0.10% | 0.58% | 3.49% | 12.22% | 12.22% | |
| Estimated total gross carrying amount at default | 14,141 | 1,964 | 601 | 541 | 341 | 17,588 |
| Lifetime ECL | 14 | 11 | 21 | 66 | 42 | 154 |
| Individually assessed | – | – | – | – | 147 | 147 |
| Total loss allowance | | | | | | 301 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

17 DEBTORS (cont'd)

The table below shows the movement in lifetime ECL that has been recognised for debtors in accordance with the simplified approach set out in FRS 109:

| | GROUP | | COMPANY | |
|---|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Balance as at 1 April | 304 | 663 | 301 | 663 |
| Amounts written off during the year | (273) | (149) | (273) | (149) |
| Amounts recovered during the year | (2) | (241) | (2) | (241) |
| Increase in allowance recognised in income or expenditure | 366 | 31 | 365 | 28 |
| Balance as at 31 March | 395 | 304 | 391 | 301 |

18 DEPOSITS AND PREPAYMENTS

| | GROUP | | COMPANY | |
|--|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Non-financial assets | 3,129 | 1,063 | 3,129 | 1,063 |
| Prepayments for fixed assets | 36,346 | 41,080 | 35,821 | 40,775 |
| Other prepayments | 39,475 | 42,143 | 38,950 | 41,838 |
| Financial assets | 691 | 1,069 | 691 | 887 |
| Deposits paid | – | 54,180 | – | 54,180 |
| Advances for investment in funds | 691 | 55,249 | 691 | 55,067 |
| | 40,166 | 97,392 | 39,641 | 96,905 |
| Less: Prepayments for fixed assets and other prepayments (non-current assets) | (3,129) | (1,136) | (3,129) | (1,136) |
| Deposits and prepayments (current assets) | 37,037 | 96,256 | 36,512 | 95,769 |

19 CASH AND CASH EQUIVALENTS

| | GROUP | | COMPANY | |
|------------------------|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Fixed deposits | 633 | 630 | 633 | 630 |
| Cash and bank balances | 169,093 | 159,949 | 135,613 | 135,731 |
| | 169,726 | 160,579 | 136,246 | 136,361 |

a) Fixed Deposits

The effective interest rates of fixed deposits at the balance sheet date are between 1.49% to 1.64% (2019: 1.42% to 1.65%) per annum and for an average tenor of 11.08 months (2019: 12.02 months).

b) Cash and Bank Balances

Cash at banks earn interest at floating rates based on daily bank deposit rates.

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FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

20 CREDITORS AND ACCRUED EXPENSES/PROVISIONS

a) Creditors and Accrued Expenses

| | GROUP | | COMPANY | |
|-------------------------------------|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Creditors | 102,723 | 56,741 | 101,664 | 55,426 |
| Payable for purchase of investments | 227 | 1,111 | 227 | 1,111 |
| Accrued expenses | 228,065 | 221,007 | 226,904 | 219,898 |
| Deposits received | 4,380 | 5,351 | 4,313 | 5,294 |
| | 335,395 | 284,210 | 333,108 | 281,729 |

The average credit period on purchases of goods is 30 days (2019: 30 days). No interest is charged on the creditors.

b) Provisions for Employee Leave Liability

Movement in the provisions for employee leave liability

| | GROUP | | COMPANY | |
|--|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Balance as at 1 April | 107,832 | 105,522 | 105,287 | 102,975 |
| Increase in provisions recognised in income or expenditure | 11,008 | 2,310 | 10,779 | 2,312 |
| Balance as at 31 March | 118,840 | 107,832 | 116,066 | 105,287 |

21 LEASE LIABILITIES

| | GROUP AND COMPANY | |
|---------------------------------------|-------------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 |
| Maturity analysis | | |
| Within one year | | 22,523 |
| Within second to fifth year inclusive | | 36,171 |
| More than five years | | 4,392 |
| | | 63,086 |
| Less: Unearned interest | | (3,141) |
| | | 59,945 |
| Represented by: | | |
| Current | | 21,404 |
| Non-current | | 38,541 |
| | | 59,945 |

The Group does not face significant liquidity risk with regards to its lease liabilities. Lease liabilities are monitored within the Group's treasury function.

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22 GRANTS RECEIVED IN ADVANCE/SINKING FUND

| | GROUP | | COMPANY | |
|---------------------------------|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Grants received in advance from | | | | |
| – Government | 236,693 | 206,969 | 231,020 | 201,804 |
| – Others | 122,691 | 103,414 | 126,955 | 106,961 |
| | 359,384 | 310,383 | 357,975 | 308,765 |
| Sinking fund from | | | | |
| – Government | 125,884 | 99,294 | 125,884 | 99,294 |
| | 485,268 | 409,677 | 483,859 | 408,059 |
| Represented by: | | | | |
| Current | | | | |
| Grants received in advance | 359,384 | 310,383 | 357,975 | 308,765 |
| Sinking fund | 37,044 | 45,023 | 37,044 | 45,023 |
| | 396,428 | 355,406 | 395,019 | 353,788 |
| Non-current | | | | |
| Sinking fund | 88,840 | 54,271 | 88,840 | 54,271 |

The balances represent grants and sinking fund received but not utilised at the end of the financial year.

23 BORROWINGS

| | GROUP AND COMPANY | |
|--|-------------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 |
| a) Fixed rate term loan | 259,898 | 270,000 |
| b) Fixed rate notes | 750,000 | 750,000 |
| | 1,009,898 | 1,020,000 |
| Represented by: | | |
| Amount due within 12 months – current liabilities | 416,722 | 270,000 |
| Amount due after 12 months – non-current liabilities | 593,176 | 750,000 |
| | 1,009,898 | 1,020,000 |

NOTES TO THE FINANCIAL STATEMENTS

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23 BORROWINGS (cont'd)

a) Fixed Rate Term loan

| | GROUP AND COMPANY | |
|--|-------------------|---------|
| | 2020 | 2019 |
| | S\$'000 | S\$'000 |
| Fixed rate term loan | 259,898 | 270,000 |
| | 259,898 | 270,000 |
| Represented by: | | |
| Amount due within 12 months – current liabilities | 16,722 | 270,000 |
| Amount due after 12 months – non-current liabilities | 243,176 | – |
| | 259,898 | 270,000 |

On 13 February 2019, the Company drew down a S\$270,000,000 loan at 2.1% per annum to finance development projects under the debt-grant framework initiated by the Government, due 1 April 2019. On 1 April 2019, the Company converted the loan to a five-year fixed rate term loan bearing interest at 2.31% per annum. The revised repayment date will be 1 April 2024. During the year, S\$10,102,000 was repaid prior to the maturity date.

There was no significant difference between amortised cost and carrying amount of the loan.

| | Term Loan | Draw down date | Interest Rate | Loan Amount | Fair Value | Loan Amount | Fair Value |
|---------------------------------------|------------------|----------------|---------------|-------------|------------|-------------|------------|
| | | | | 2020 | 2020 | 2019 | 2019 |
| | | | | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Fixed rate term loan due 1 April 2019 | 13 February 2019 | 2.100% | – | – | 270,000 | 270,000 | |
| Fixed rate term loan due 1 April 2024 | 1 April 2019 | 2.310% | 259,898 | 259,898 | – | – | |
| | | | 259,898 | 259,898 | 270,000 | 270,000 | |

NOTES TO THE FINANCIAL STATEMENTS

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23 BORROWINGS (cont'd)

b) Fixed rate notes

| | GROUP AND COMPANY | |
|--|-------------------|---------|
| | 2020 | 2019 |
| | S\$'000 | S\$'000 |
| Fixed rate notes | 750,000 | 750,000 |
| | 750,000 | 750,000 |
| Represented by: | | |
| Amount due within 12 months – current liabilities | 400,000 | – |
| Amount due after 12 months – non-current liabilities | 350,000 | 750,000 |
| | 750,000 | 750,000 |

Under the Multicurrency Medium Term Note (MTN) programme to finance development projects under the debt-grant framework initiated by the Government, the Company has issued fixed rate notes. Unless previously redeemed or purchased and cancelled, the notes will be redeemed at its redemption amount on maturity date. The Company is required to maintain a ratio where the total liabilities to total assets shall not at any time be more than 0.65:1. There is no significant difference between amortised cost and carrying amount of the notes.

As at 31 March 2020, there are 3 fixed rate notes that have not been redeemed.

| Fixed Rate Notes | Issue Date | Coupon | Issued Amount | Fair Value | Issued Amount | Fair Value |
|--------------------------------------|------------------|--------|---------------|------------|---------------|------------|
| | | | 2020 | 2020 | 2019 | 2019 |
| | | | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Fixed rate note due 27 May 2020 | 27 May 2015 | 2.200% | 400,000 | 400,428 | 400,000 | 399,936 |
| Fixed rate note due 1 September 2021 | 1 September 2016 | 1.810% | 100,000 | 100,013 | 100,000 | 99,015 |
| Fixed rate note due 2 June 2022 | 2 June 2017 | 1.855% | 250,000 | 248,715 | 250,000 | 245,950 |
| | | | 750,000 | 749,156 | 750,000 | 744,901 |

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23 BORROWINGS (cont'd)

c) Reconciliation of liabilities arising from financing activities

A reconciliation of liabilities arising from financing activities is as follows:

| GROUP | | | | |
|-------------------|--------------|------------|------------------|---------------|
| | 1 April 2019 | Cash Flows | Non-Cash changes | 31 March 2020 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Term loan | | | | |
| – Current | 270,000 | – | (253,278) | 16,722 |
| – Non-current | – | (10,102) | 253,278 | 243,176 |
| Fixed rate notes | | | | |
| – Current | – | – | – | – |
| – Non-current | 750,000 | – | – | 750,000 |
| Lease liabilities | 82,208 | (22,263) | – | 59,945 |
| | 1,102,208 | (32,365) | – | 1,069,843 |

| GROUP | | | | |
|------------------|--------------|------------|------------------|---------------|
| | 1 April 2018 | Cash Flows | Non-Cash changes | 31 March 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Term loan | | | | |
| – Current | – | 270,000 | – | 270,000 |
| Fixed rate notes | | | | |
| – Current | 250,000 | (250,000) | – | – |
| – Non-current | 750,000 | – | – | 750,000 |
| | 1,000,000 | 20,000 | – | 1,020,000 |

“Non-Cash changes” column relates to reclassification of non-current portion of the fixed rate notes due to passage of time.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

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24 DEFERRED CAPITAL GRANTS

| | GROUP | | COMPANY | |
|--|------------------|------------------|------------------|------------------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Fixed Assets | | | | |
| Government | | | | |
| Balance as at 1 April | 1,347,828 | 1,454,768 | 1,346,442 | 1,453,882 |
| Adoption of FRS 116 (Note 2) | (73,811) | – | (73,811) | – |
| Capital grants utilised during the year | 106,313 | 106,407 | 106,313 | 106,407 |
| Amount transferred from operating grants (Note 35) | 37,351 | 35,855 | 36,988 | 35,110 |
| | 1,417,681 | 1,597,030 | 1,415,932 | 1,595,399 |
| Deferred capital grants amortised | (253,064) | (249,202) | (252,843) | (248,957) |
| Balance as at 31 March | 1,164,617 | 1,347,828 | 1,163,089 | 1,346,442 |
| Others | | | | |
| Balance as at 1 April | 423,026 | 425,023 | 422,272 | 423,958 |
| Capital grants utilised during the year and donated assets | 15,797 | 23,885 | 15,797 | 23,885 |
| Amount transferred from operating grants (Note 35) | 14,992 | 12,470 | 14,992 | 12,470 |
| | 453,815 | 461,378 | 453,061 | 460,313 |
| Deferred capital grants amortised | (37,255) | (38,352) | (36,968) | (38,041) |
| Balance as at 31 March | 416,560 | 423,026 | 416,093 | 422,272 |
| Total deferred capital grants balance for fixed assets as at 31 March | 1,581,177 | 1,770,854 | 1,579,182 | 1,768,714 |
| Intangible Assets | | | | |
| Government | | | | |
| Balance as at 1 April | 6,533 | 5,542 | 6,533 | 5,542 |
| Capital grants utilised during the year | 1,065 | 1,245 | 1,065 | 1,245 |
| Amount transferred from operating grants (Note 35) | 2,167 | 2,345 | 2,167 | 2,345 |
| | 9,765 | 9,132 | 9,765 | 9,132 |
| Deferred capital grants amortised | (2,816) | (2,599) | (2,816) | (2,599) |
| Balance as at 31 March | 6,949 | 6,533 | 6,949 | 6,533 |
| Others | | | | |
| Balance as at 1 April | 764 | 1,084 | 764 | 1,084 |
| Amount transferred from operating grants (Note 35) | 186 | 199 | 186 | 199 |
| | 950 | 1,283 | 950 | 1,283 |
| Deferred capital grants amortised | (465) | (519) | (465) | (519) |
| Balance as at 31 March | 485 | 764 | 485 | 764 |
| Total deferred capital grants balance for intangible assets as at 31 March | 7,434 | 7,297 | 7,434 | 7,297 |
| Right-of-Use Assets | | | | |
| Government | | | | |
| Balance as at 1 April | – | – | – | – |
| Adoption of FRS 116 (Note 2) | 73,811 | – | 73,811 | – |
| Capital grants utilised during the year | 70,965 | – | 70,965 | – |
| | 144,776 | – | 144,776 | – |
| Deferred capital grants amortised | (18,229) | – | (18,229) | – |
| Balance as at 31 March | 126,547 | – | 126,547 | – |
| Fixed Assets, Intangible Assets and Right-of-Use Assets | | | | |
| Balance as at 1 April | 1,778,151 | 1,886,417 | 1,776,011 | 1,884,466 |
| Capital grants utilised during the year and donated assets | 194,140 | 131,537 | 194,140 | 131,537 |
| Amount transferred from operating grants (Note 35) | 54,696 | 50,869 | 54,333 | 50,124 |
| | 2,026,987 | 2,068,823 | 2,024,484 | 2,066,127 |
| Deferred capital grants amortised | (311,829) | (290,672) | (311,321) | (290,116) |
| Balance as at 31 March | 1,715,158 | 1,778,151 | 1,713,163 | 1,776,011 |

Deferred capital grants relate to grants received in the form of donated assets and for the acquisition of fixed assets and intangible assets by the Group. There are no unfulfilled conditions or contingencies attached to these grants.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

25 ACCUMULATED SURPLUS, FAIR VALUE RESERVE, REVALUATION RESERVE AND TRANSLATION RESERVE

Accumulated Surplus

Accumulated surplus under the statements of financial position comprise Designated General Funds and Other Restricted Funds as disclosed in Note 2(j).

| | Note | GROUP | | COMPANY | |
|---|------|------------------|------------------|------------------|------------------|
| | | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Accumulated Surplus for Designated General Funds | | | | | |
| Funds allocated for planned operational activities of faculties, departments and halls of residences | | 2,703,422 | 2,606,092 | 2,568,672 | 2,501,778 |
| Funds utilised to acquire assets, which will be amortised to match future depreciation when assets are put into use | | 522,355 | 499,098 | 522,355 | 499,098 |
| From non-endowed donations | 26 | 131 | 134 | – | – |
| | | <u>3,225,908</u> | <u>3,105,324</u> | <u>3,091,027</u> | <u>3,000,876</u> |
| Accumulated Surplus for Other Restricted Funds | | | | | |
| From non-endowed donations (restricted expendable gifts that can only be used for purposes specified by donors) | 26 | 1,040,792 | 954,981 | 1,040,792 | 954,981 |
| | | <u>1,040,792</u> | <u>954,981</u> | <u>1,040,792</u> | <u>954,981</u> |
| Total Accumulated Surplus | | 4,266,700 | 4,060,305 | 4,131,819 | 3,955,857 |

Fair Value Reserve

Fair value reserve represents the cumulative fair value changes, net of tax, of investments at fair value through other comprehensive income.

Revaluation Reserve

Revaluation reserve represents the surplus on the revaluation of buildings transferred to investment properties at fair value net of tax, where applicable.

Translation Reserve

Translation reserve represents exchange differences arising from the translation of the financial statements of foreign operations whose functional currencies are different from that of the Group's presentation currency.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

26 ENDOWMENT FUNDS AND NON-ENDOWED DONATIONS

The Company is registered as a charity and is given Institution of a Public Character (IPC) status under the Education Sector. The financial position of the Company's endowment funds and non-endowed donations has been disclosed separately below to facilitate the submission of the Company's IPC returns to its Sector Administrator, Ministry of Education.

During the financial year, total donations received by the Group and the Company amounted to S\$180,322,000 (2019: S\$261,363,000) and S\$180,315,000 (2019: S\$261,361,000) respectively, of which S\$180,315,000 (2019: S\$261,362,000) of the Group and S\$180,315,000 (2019: S\$261,361,000) of the Company are tax-deductible. Of the total donations received, S\$30,215,000 (2019: S\$47,387,000) for the Group and the Company represent endowed donations while the balance represents non-endowed donations. Endowed donations received are recognised directly to the endowment capital. The non-endowed donations are received for specific purposes and cannot be used towards the general operating expenses of the Group and Company.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

26 ENDOWMENT FUNDS AND NON-ENDOWED DONATIONS (cont'd)

| GROUP | Note | 2020 | | | 2019 | | |
|---|------|--------------------------|----------------------------------|------------------|--------------------------|----------------------------------|------------------|
| | | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 |
| Accumulated Surplus | | | | | | | |
| Designated General Funds | 25 | – | 131 | 131 | – | 134 | 134 |
| Other Restricted Funds | 25 | – | 1,040,792 | 1,040,792 | – | 954,981 | 954,981 |
| | | – | 1,040,923 | 1,040,923 | – | 955,115 | 955,115 |
| Net Income from Endowment Funds | | | | | | | |
| Unrestricted | | 643,058 | – | 643,058 | 668,425 | – | 668,425 |
| Restricted | | 1,203,972 | – | 1,203,972 | 1,309,339 | – | 1,309,339 |
| | | 1,847,030 | – | 1,847,030 | 1,977,764 | – | 1,977,764 |
| Endowment Capital | | | | | | | |
| Unrestricted | | 825,948 | – | 825,948 | 770,138 | – | 770,138 |
| Restricted | | 3,793,843 | – | 3,793,843 | 3,627,380 | – | 3,627,380 |
| | | 4,619,791 | – | 4,619,791 | 4,397,518 | – | 4,397,518 |
| | | 6,466,821 | 1,040,923 | 7,507,744 | 6,375,282 | 955,115 | 7,330,397 |
| Represented by: | | | | | | | |
| Non-Current Assets | | | | | | | |
| Associated Companies | | 83,423 | – | 83,423 | 81,138 | – | 81,138 |
| Fixed assets | | 32,739 | 323,008 | 355,747 | 34,222 | 336,952 | 371,174 |
| Student loans | | – | 1,564 | 1,564 | – | 1,574 | 1,574 |
| | | 116,162 | 324,572 | 440,734 | 115,360 | 338,526 | 453,886 |
| Current Assets | | | | | | | |
| Debtors | | 159,303 | – | 159,303 | 154,993 | – | 154,993 |
| Investments at fair value through income or expenditure | | 6,250,790 | 923,336 | 7,174,126 | 6,106,611 | 833,519 | 6,940,130 |
| Derivative financial instruments | | 6,888 | – | 6,888 | 3,137 | – | 3,137 |
| Cash and cash equivalents | | 32,255 | 131 | 32,386 | 14,778 | 134 | 14,912 |
| | | 6,449,236 | 923,467 | 7,372,703 | 6,279,519 | 833,653 | 7,113,172 |
| Total Assets | | 6,565,398 | 1,248,039 | 7,813,437 | 6,394,879 | 1,172,179 | 7,567,058 |
| Current Liabilities | | | | | | | |
| Creditors and accrued expenses | | 8,366 | – | 8,366 | 7,887 | – | 7,887 |
| Derivative financial instruments | | 90,211 | – | 90,211 | 11,710 | – | 11,710 |
| | | 98,577 | – | 98,577 | 19,597 | – | 19,597 |
| Non-Current Liability | | | | | | | |
| Deferred capital grants | | – | 207,116 | 207,116 | – | 217,064 | 217,064 |
| Total Liabilities | | 98,577 | 207,116 | 305,693 | 19,597 | 217,064 | 236,661 |
| Net Assets | | 6,466,821 | 1,040,923 | 7,507,744 | 6,375,282 | 955,115 | 7,330,397 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

26 ENDOWMENT FUNDS AND NON-ENDOWED DONATIONS (cont'd)

| GROUP | 2020 | | | 2019 | | |
|---|--------------------------|----------------------------------|------------------|--------------------------|----------------------------------|------------------|
| | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 |
| Net Income from Endowment Funds/ | | | | | | |
| Accumulated Surplus: | | | | | | |
| Balance as at 1 April | 1,977,764 | 955,115 | 2,932,879 | 1,839,956 | 792,726 | 2,632,682 |
| Net tuition and other fees | (29,105) | (3,407) | (32,512) | (25,920) | (3,027) | (28,947) |
| Donations received (Note 37) | – | 150,107 | 150,107 | – | 213,976 | 213,976 |
| Donated artifacts additions | – | 411 | 411 | – | 513 | 513 |
| Net investment income (including change in fair value of investment held for trading) | 74,212 | 8,244 | 82,456 | 301,160 | 19,991 | 321,151 |
| Other operating income | 9 | 77 | 86 | 31 | 80 | 111 |
| Expenditure on manpower | (76,150) | (21,331) | (97,481) | (67,655) | (20,424) | (88,079) |
| Depreciation | (5,053) | (6,757) | (11,810) | (4,564) | (6,971) | (11,535) |
| Other operating expenditure | (91,655) | (41,536) | (133,191) | (67,987) | (41,749) | (109,736) |
| Share of results of associated company | 2,285 | – | 2,285 | 5,133 | – | 5,133 |
| Amount transferred to endowment capital ^(a) | (5,277) | – | (5,277) | (2,390) | – | (2,390) |
| Balance as at 31 March | 1,847,030 | 1,040,923 | 2,887,953 | 1,977,764 | 955,115 | 2,932,879 |
| Endowment Capital: | | | | | | |
| Balance as at 1 April | 4,397,518 | – | 4,397,518 | 4,077,118 | – | 4,077,118 |
| Matching grants received/accrued | 186,781 | – | 186,781 | 270,623 | – | 270,623 |
| Donations received | 30,215 | – | 30,215 | 47,387 | – | 47,387 |
| Amount transferred from Net Income ^(a) | 5,277 | – | 5,277 | 2,390 | – | 2,390 |
| Balance as at 31 March | 4,619,791 | – | 4,619,791 | 4,397,518 | – | 4,397,518 |
| Balance as at 31 March | 6,466,821 | 1,040,923 | 7,507,744 | 6,375,282 | 955,115 | 7,330,397 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

26 ENDOWMENT FUNDS AND NON-ENDOWED DONATIONS (cont'd)

| COMPANY | Note | 2020 | | | 2019 | | |
|---|------|--------------------------|----------------------------------|------------------|--------------------------|----------------------------------|------------------|
| | | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 |
| Accumulated Surplus (Other Restricted Funds) | 25 | – | 1,040,792 | 1,040,792 | – | 954,981 | 954,981 |
| Net Income from Endowment Funds | | | | | | | |
| Unrestricted | | 643,058 | – | 643,058 | 668,425 | – | 668,425 |
| Restricted | | 1,180,287 | – | 1,180,287 | 1,287,939 | – | 1,287,939 |
| | | <u>1,823,345</u> | <u>–</u> | <u>1,823,345</u> | <u>1,956,364</u> | <u>–</u> | <u>1,956,364</u> |
| Endowment Capital | | | | | | | |
| Unrestricted | | 825,516 | – | 825,516 | 769,706 | – | 769,706 |
| Restricted | | 3,793,843 | – | 3,793,843 | 3,627,380 | – | 3,627,380 |
| | | <u>4,619,359</u> | <u>–</u> | <u>4,619,359</u> | <u>4,397,086</u> | <u>–</u> | <u>4,397,086</u> |
| | | 6,442,704 | 1,040,792 | 7,483,496 | 6,353,450 | 954,981 | 7,308,431 |
| Represented by: | | | | | | | |
| Non-Current Assets | | | | | | | |
| Associated Companies | | 59,738 | – | 59,738 | 59,738 | – | 59,738 |
| Fixed assets | | 32,739 | 323,008 | 355,747 | 34,222 | 336,952 | 371,174 |
| Student loans | | – | 1,564 | 1,564 | – | 1,574 | 1,574 |
| | | <u>92,477</u> | <u>324,572</u> | <u>417,049</u> | <u>93,960</u> | <u>338,526</u> | <u>432,486</u> |
| Current Assets | | | | | | | |
| Debtors | | 159,303 | – | 159,303 | 154,993 | – | 154,993 |
| Investments at fair value through income or expenditure | | 6,250,790 | 923,336 | 7,174,126 | 6,106,611 | 833,519 | 6,940,130 |
| Derivative financial instruments | | 6,888 | – | 6,888 | 3,137 | – | 3,137 |
| Cash and cash equivalents | | 31,823 | – | 31,823 | 14,346 | – | 14,346 |
| | | <u>6,448,804</u> | <u>923,336</u> | <u>7,372,140</u> | <u>6,279,087</u> | <u>833,519</u> | <u>7,112,606</u> |
| Total Assets | | 6,541,281 | 1,247,908 | 7,789,189 | 6,373,047 | 1,172,045 | 7,545,092 |
| Current Liabilities | | | | | | | |
| Creditors and accrued expenses | | 8,366 | – | 8,366 | 7,887 | – | 7,887 |
| Derivative financial instruments | | 90,211 | – | 90,211 | 11,710 | – | 11,710 |
| | | <u>98,577</u> | <u>–</u> | <u>98,577</u> | <u>19,597</u> | <u>–</u> | <u>19,597</u> |
| Non-Current Liability | | | | | | | |
| Deferred capital grants | | – | 207,116 | 207,116 | – | 217,064 | 217,064 |
| | | <u>98,577</u> | <u>207,116</u> | <u>305,693</u> | <u>19,597</u> | <u>217,064</u> | <u>236,661</u> |
| Total Liabilities | | 98,577 | 207,116 | 305,693 | 19,597 | 217,064 | 236,661 |
| Net Assets | | 6,442,704 | 1,040,792 | 7,483,496 | 6,353,450 | 954,981 | 7,308,431 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

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FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

26 ENDOWMENT FUNDS AND NON-ENDOWED DONATIONS (cont'd)

| COMPANY | 2020 | | | 2019 | | |
|---|--------------------------|----------------------------------|------------------|--------------------------|----------------------------------|------------------|
| | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 | Endowed Funds S\$'000 | Non-endowed Donations S\$'000 | Total S\$'000 |
| Net Income from Endowment Funds/ Accumulated Surplus: | | | | | | |
| Balance as at 1 April | 1,956,364 | 954,981 | 2,911,345 | 1,823,689 | 792,594 | 2,616,283 |
| Net tuition and other fees | (29,105) | (3,407) | (32,512) | (25,920) | (3,027) | (28,947) |
| Donations received (Note 37) | – | 150,100 | 150,100 | – | 213,974 | 213,974 |
| Donated artifacts additions | – | 411 | 411 | – | 513 | 513 |
| Net investment income (including change in fair value of investment held for trading) | 74,212 | 8,244 | 82,456 | 301,160 | 19,991 | 321,151 |
| Other operating income | 9 | 77 | 86 | 31 | 80 | 111 |
| Expenditure on manpower | (76,150) | (21,331) | (97,481) | (67,655) | (20,424) | (88,079) |
| Depreciation | (5,053) | (6,757) | (11,810) | (4,564) | (6,971) | (11,535) |
| Other operating expenditure | (91,655) | (41,526) | (133,181) | (67,987) | (41,749) | (109,736) |
| Amount transferred to endowment capital ^(a) | (5,277) | – | (5,277) | (2,390) | – | (2,390) |
| Balance as at 31 March | <u>1,823,345</u> | <u>1,040,792</u> | <u>2,864,137</u> | <u>1,956,364</u> | <u>954,981</u> | <u>2,911,345</u> |
| Endowment Capital: | | | | | | |
| Balance as at 1 April | 4,397,086 | – | 4,397,086 | 4,076,686 | – | 4,076,686 |
| Matching grants received/accrued | 186,781 | – | 186,781 | 270,623 | – | 270,623 |
| Donations received | 30,215 | – | 30,215 | 47,387 | – | 47,387 |
| Amount transferred from Net Income ^(a) | 5,277 | – | 5,277 | 2,390 | – | 2,390 |
| Balance as at 31 March | <u>4,619,359</u> | <u>–</u> | <u>4,619,359</u> | <u>4,397,086</u> | <u>–</u> | <u>4,397,086</u> |
| Balance as at 31 March | 6,442,704 | 1,040,792 | 7,483,496 | 6,353,450 | 954,981 | 7,308,431 |

(a) This represents mainly capitalisation of surplus funds.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

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27 FUNDS MANAGED ON BEHALF OF THE GOVERNMENT MINISTRY

Pursuant to the Tuition Fee Loan (TFL), Study Loan (SL) and Overseas Student Program Loan – 50% funded by MOE (OSP) schemes, the Group acts as agent for these loan schemes and the Government Ministry as the financier providing the funds.

| | GROUP AND COMPANY | |
|---|-------------------|----------|
| | 2020 | 2019 |
| | S\$'000 | S\$'000 |
| Funds from the Government Ministry: | | |
| Balance as at 1 April | 305,669 | 305,456 |
| Cash received | 90,452 | 86,737 |
| Interest income received on behalf of the Government Ministry | 4,107 | 4,328 |
| Repayments | (88,022) | (85,641) |
| Bad debts incurred | (688) | (883) |
| Interest income transferred to the Government Ministry | (4,107) | (4,328) |
| | 307,411 | 305,669 |
| Represented by: | | |
| Student loans – TFL, SL and OSP | 307,955 | 307,522 |
| Net assets | 307,955 | 307,522 |
| Amount receivable from the Government Ministry | (544) | (1,853) |
| | 307,411 | 305,669 |

28 TRANSFER BETWEEN DESIGNATED GENERAL FUNDS, ENDOWMENT FUNDS AND OTHER RESTRICTED FUNDS

| | GROUP AND COMPANY | | | | | |
|---|--------------------------|-----------------|------------------------|--------------------------|-----------------|------------------------|
| | 2020 | | | 2019 | | |
| | Designated General Funds | Endowment Funds | Other Restricted Funds | Designated General Funds | Endowment Funds | Other Restricted Funds |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Inter-fund transactions between Designated General Funds, Endowment Funds and Other Restricted Funds ^(a) | 30,428 | (3,305) | (27,123) | 27,166 | (2,853) | (24,313) |
| Transfer between Designated General Funds, Endowment Funds and Other Restricted Funds ^(b) | 85,678 | 1,183 | (86,861) | 67,413 | 423 | (67,836) |
| | 116,106 | (2,122) | (113,984) | 94,579 | (2,430) | (92,149) |

(a) This relates mainly to inter-fund transactions between Other Restricted Funds and funds maintained for self-financing activities under Designated General Funds.

(b) This relates mainly to transfer of funds from research projects (Other Restricted Funds) to a central pool (Designated General Funds) for indirect overheads recovery and to self-financing funds (Designated General Funds) for unspent grant balances as agreed by the grantors.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

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FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

29 TUITION AND OTHER FEES

| | GROUP | | COMPANY | |
|-------------------------------------|----------|-----------|----------|-----------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Type of goods or services | | | | |
| Tuition fees | 534,550 | 508,481 | 528,639 | 502,918 |
| Other fees | 21,443 | 15,601 | 21,443 | 15,601 |
| | 555,993 | 524,082 | 550,082 | 518,519 |
| Less: Scholarship expenses | (98,888) | (102,614) | (97,006) | (100,719) |
| | 457,105 | 421,468 | 453,076 | 417,800 |
| Timing of income recognition | | | | |
| At a point in time | 14,728 | 9,439 | 14,728 | 9,439 |
| Over time | 442,377 | 412,029 | 438,348 | 408,361 |
| | 457,105 | 421,468 | 453,076 | 417,800 |

Tuition and other fees are mainly generated in Singapore.

The following table shows the aggregate amount of the transaction price allocated to performance obligations that are unsatisfied (or partially unsatisfied) as at the end of the reporting period.

| | GROUP | | COMPANY | |
|----------------------------------|---------|---------|---------|---------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Type of goods or services | | | | |
| Tuition fees | 87,687 | 91,448 | 87,654 | 91,394 |
| | 87,687 | 91,448 | 87,654 | 91,394 |

Management expects that 100% of the transaction price allocated to the unsatisfied contracts as of 31 March 2020 will be recognised as revenue during the next reporting period.

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FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

30 OTHER INCOME

| | GROUP | | COMPANY | |
|---|---------|---------|---------|---------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Donations received | 150,107 | 213,976 | 150,100 | 213,974 |
| Rental income and student hostel residential fees | 100,776 | 99,266 | 98,404 | 96,835 |
| Rental income from investment properties (Note 10) | 702 | 641 | 702 | 641 |
| Courses and conference fees | 55,716 | 51,429 | 55,418 | 51,088 |
| Clinical fees/consultancy fees | 13,983 | 15,307 | 13,983 | 15,307 |
| Gain from change in fair value of investment property | 1,005 | 3,406 | 1,005 | 3,406 |
| Jobs credit received | 3,469 | 4,774 | 3,469 | 4,770 |
| Proceeds from insurers | 335 | 610 | 335 | 610 |
| Sponsorships received | 12,705 | 6,896 | 12,343 | 6,867 |
| Others | 62,479 | 60,436 | 60,618 | 59,543 |
| | 401,277 | 456,741 | 396,377 | 453,041 |

Timing of income recognition

| | | | | |
|---------------------|---------|---------|---------|---------|
| At a point in time: | 230,100 | 290,098 | 227,870 | 289,170 |
| Over time: | 171,177 | 166,643 | 168,507 | 163,871 |
| | 401,277 | 456,741 | 396,377 | 453,041 |

31 EXPENDITURE ON MANPOWER

| | GROUP | | COMPANY | |
|--|-----------|-----------|-----------|-----------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Wages and salaries | 1,281,243 | 1,247,435 | 1,260,755 | 1,226,178 |
| Employer's contribution to Central Provident Funds | 101,470 | 99,201 | 99,633 | 97,353 |
| Other staff benefits | 39,208 | 31,628 | 38,785 | 31,081 |
| | 1,421,921 | 1,378,264 | 1,399,173 | 1,354,612 |

32 KEY MANAGEMENT PERSONNEL COMPENSATION

The compensation for twenty-three (2019: twenty-two) key management personnel (includes the remuneration of two executive trustees) are as follows:

| | GROUP AND COMPANY | |
|--------------------------|-------------------|---------|
| | 2020 | 2019 |
| | S\$'000 | S\$'000 |
| Short-term benefits | 16,361 | 17,228 |
| Post-employment benefits | 234 | 267 |
| | 16,595 | 17,495 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

33 NET INVESTMENT INCOME

| | GROUP | | COMPANY | |
|--|-----------|---------|-----------|---------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Interest income | 29,168 | 21,921 | 28,812 | 20,723 |
| Dividend income | 93,785 | 86,005 | 91,816 | 85,647 |
| Net gain on sale of investments at FVTIE | 69,152 | 39,454 | 69,152 | 39,454 |
| Net foreign currency exchange losses | (28,816) | (3,108) | (28,816) | (3,108) |
| Change in fair value of investments at FVTIE due to foreign currency changes | 266,209 | 52,414 | 266,209 | 52,414 |
| | 237,393 | 49,306 | 237,393 | 49,306 |
| Change in fair value of investments at FVTIE due to price change | (314,930) | 204,608 | (314,930) | 204,608 |
| | 114,568 | 401,294 | 112,243 | 399,738 |
| Represented by: | | | | |
| Net operating Investment Income | 285,963 | 313,251 | 283,638 | 311,695 |
| Non-operating Investment (loss) Income | (171,395) | 88,043 | (171,395) | 88,043 |
| | 114,568 | 401,294 | 112,243 | 399,738 |

For more meaningful presentation of the finances of the Group, net investment income is split into operating and non-operating investment income. Operating investment income consists of investment income of endowment funds as defined by the Group's endowment spending rule, and investment income of other funds. Non-operating investment (loss)/income represents the (deficit)/surplus after accounting for the spending rule of endowment funds.

34 DEFICIT BEFORE GRANTS

This is arrived at after taking in:

| | GROUP | | COMPANY | |
|--|---------|---------|---------|---------|
| | 2020 | 2019 | 2020 | 2019 |
| | S\$'000 | S\$'000 | S\$'000 | S\$'000 |
| Bad debts and loss allowance | 1,026 | 528 | 1,026 | 528 |
| Rental expenses | 9,761 | 9,049 | 9,761 | 8,401 |
| Borrowing costs expensed off ^(a) | 19,132 | 15,821 | 19,132 | 15,821 |
| Loss on disposal of fixed and intangible assets | 2,600 | 373 | 2,554 | 373 |
| Research and development costs | 700,315 | 694,860 | 700,315 | 694,860 |
| (a) Borrowing costs incurred during the year is analysed as follows: | | | | |
| Interest on short-term loan | – | 730 | – | 730 |
| Interest on fixed rate notes | 15,289 | 18,968 | 15,289 | 18,968 |
| Interest on fixed rate term loan | 6,223 | – | 6,223 | – |
| Interest on lease liabilities | 1,422 | – | 1,422 | – |
| Less : amounts included in cost of qualifying fixed assets | (3,802) | (3,877) | (3,802) | (3,877) |
| Borrowing costs expensed off | 19,132 | 15,821 | 19,132 | 15,821 |

During the year ended 31 March 2020, interest cost of the Group amounting to S\$3,802,000 (2019: S\$3,877,000) was capitalised as capital work-in-progress and is determined using a capitalisation rate of 2.1% (2019: 2.0%) per annum.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

35 OPERATING GRANTS

| | GROUP | | COMPANY | |
|---|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| (a) Operating Grants (Government) | | | | |
| Operating grants utilised during the year | 1,366,278 | 1,451,226 | 1,340,676 | 1,425,813 |
| Amount transferred to deferred capital grants (Note 24) | (110,483) | (38,200) | (110,120) | (37,455) |
| | 1,255,795 | 1,413,026 | 1,230,556 | 1,388,358 |
| (b) Operating Grants (Others) | | | | |
| Operating grants utilised during the year | 270,289 | 231,620 | 269,020 | 230,444 |
| Amount transferred to deferred capital grants (Note 24) | (15,178) | (12,669) | (15,178) | (12,669) |
| | 255,111 | 218,951 | 253,842 | 217,775 |

36 INCOME TAX

Income tax varies from the amount of income tax determined by applying the Singapore income tax rate of 17% (2019: 17%) to surplus before income tax as a result of the following differences:

| | GROUP | | COMPANY | |
|--|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Surplus for the year before income tax (including non-operating investment income) | 80,635 | 570,540 | 47,917 | 546,598 |
| Income tax expense calculated at statutory tax rate | 13,713 | 96,992 | 8,146 | 92,922 |
| Income not subject to tax | (8,890) | (95,570) | (8,146) | (92,922) |
| Tax effect of share of results of associates | (4,132) | (1,585) | - | - |
| Others | (663) | 169 | - | - |
| | 28 | 6 | - | - |

As the Company and its subsidiary, NUS High School of Mathematics and Science are charities registered under the Charities Act, their income is not subject to tax under Section 13 of the Singapore Income Tax Act. NUS America, Inc, another subsidiary of the Company, is also not subject to tax as it is a non-profit public benefit corporation registered in America.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

37 SURPLUS FOR THE YEAR

The surplus for the year in the Statement of Comprehensive Income of the Group and Company of S\$80,635,000 (2019: S\$570,534,000) and S\$47,917,000 (2019: S\$546,598,000) respectively includes the following:

| | GROUP | | COMPANY | |
|---|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Non-endowed donations (Note 26) | 150,107 | 213,976 | 150,100 | 213,974 |
| Net investment income (include change in fair value of investment) (Note 33) | 114,568 | 401,294 | 112,243 | 399,738 |
| | 264,675 | 615,270 | 262,343 | 613,712 |

38 COMMITMENTS

a) Capital Commitments

Commitments by the Group in respect of equipment and expansion of the facilities, not provided for in the financial statements, are as follows:

| | GROUP AND COMPANY | |
|-------------------------------|-------------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 |
| Authorised and contracted for | 392,676 | 378,883 |

On 27 July 2018, the Company committed to make an investment of S\$1,300,000 in its associated company, InVivos Pte Ltd (InVivos) to fund InVivos's continued operations. As at 31 March 2020, a total investment of S\$400,000 (2019: S\$Nil) has been made and there is an outstanding commitment of S\$900,000 (2019: S\$1,300,000).

On 24 April 2019, the Company committed to provide an interest free convertible shareholders' loan of S\$25,000,000 to its subsidiary, Graduate Investment Pte Ltd (GIPL). As at 31 March 2020, a total investment of S\$5,000,000 (2019: S\$Nil) has been made and there is an outstanding commitment of S\$20,000,000 (2019: S\$Nil).

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

38 COMMITMENTS (cont'd)

b) Operating Lease Commitments – as Lessee

As at 31 March 2020, the Group and Company is committed to S\$2,745,000 for short term leases.

Previous accounting policy for leases under FRS 17 (before 1 April 2019)

As at 31 March 2019, the Group and Company had outstanding commitments under non-cancellable operating leases, which fall due as follows:

| | GROUP AND COMPANY |
|---|-------------------|
| | 2019 |
| | S\$'000 |
| Minimum lease payments under operating leases included in the income or expenditure | 1,026 |

At the end of the reporting period, commitments in respect of non-cancellable operating leases for the rental of offices and contract on security services are as follows:

| | |
|--|-----|
| Future minimum lease payments payable: | |
| Within one year | 177 |
| Within second to fifth year inclusive | 52 |
| | 229 |

Operating lease payments represent rentals payable by the Group for certain office properties which are fixed for an average of 2 years as at 31 March 2019.

c) Operating Lease Commitments – as Lessor

As the end of the reporting period, commitments in respect of non-cancellable operating leases for the rental of premises are as follows:

| | GROUP AND COMPANY |
|---------------------------------------|-------------------|
| | 2020 |
| | S\$'000 |
| Maturity analysis | |
| Within one year | 4,170 |
| Within second to fifth year inclusive | 5,879 |
| | 10,049 |

Operating lease payments represent rentals receivable by the Group for rental of premises with remaining lease terms ranging from 1 to 6 years.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

38 COMMITMENTS (cont'd)

c) Operating Lease Commitments – as Lessor (cont'd)

Previous accounting policy for leases under FRS 17 (before 1 April 2019)

As at 31 March 2019, the Group and Company had outstanding commitments under non-cancellable operating leases for the rental of premises, which fall due as follows:

| | GROUP AND COMPANY |
|---|-------------------|
| | 2019 |
| | S\$'000 |
| Future minimum lease payments receivable: | |
| Within one year | 4,016 |
| After one year | 6,754 |
| | 10,770 |

Operating lease payments represent rentals receivable by the Group for rental of premises with remaining lease terms ranging from 1 to 6 years as at 31 March 2019.

39 RELATED PARTIES TRANSACTIONS

Parties are considered to be related if one party has the ability to control the other party or exercise significant influence over the other party in making financial and operating decisions.

The Group receives grants from the Ministry of Education (MOE) to fund its operations and is subject to certain controls set by MOE.

Hence, other government-controlled enterprises are considered related parties of the Group. Many of the Group's transactions and arrangements are with related parties and the effect of these on the basis determined between the parties is reflected in these financial statements. For related parties debtors and creditors balances, the terms of these balances are disclosed in the respective notes to the financial statements.

There were transactions with corporations in which certain trustees have the ability to control or exercise significant influence.

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

39 RELATED PARTIES TRANSACTIONS (cont'd)

Details of significant balances and transactions between the related parties are described below:

| | GROUP | | COMPANY | |
|--|-----------------|-----------------|-----------------|-----------------|
| | 2020 S\$'000 | 2019 S\$'000 | 2020 S\$'000 | 2019 S\$'000 |
| Government-controlled enterprises and companies within the Group | | | | |
| Balances | | | | |
| Debtors | 503,079 | 540,327 | 498,146 | 537,724 |
| Amount owing by subsidiary companies | - | - | 4 | 880 |
| Long-term loan to subsidiary company | - | - | 5,000 | - |
| Creditors and accrued expenses | 761 | 1,277 | 761 | 1,277 |
| Amount owing to subsidiary company | - | - | 28,294 | 28,031 |
| Deferred capital grants | 1,411,307 | 1,456,044 | 1,409,876 | 1,454,700 |
| Grants received in advance | 334,075 | 374,049 | 328,389 | 368,978 |
| Transactions | | | | |
| Endowed donations | 463 | 512 | 463 | 512 |
| Non-endowed donations | 74,319 | 141,385 | 74,319 | 141,385 |
| Other income | 23,763 | 23,131 | 23,873 | 23,131 |
| Other operating expenditure | 98,125 | 90,905 | 101,164 | 90,905 |
| Operating/capital grants received | 2,085,026 | 2,094,985 | 2,058,831 | 2,070,617 |
| Corporations in which trustees have the ability to control or exercise significant influence (including donations received from trustees) | | | | |
| Balances | | | | |
| Debtors | 394 | 195 | 394 | 195 |
| Creditors and accrued expenses | 33 | 77 | 33 | 77 |
| Transactions | | | | |
| Endowed donations | 137 | 9,587 | 137 | 9,587 |
| Non-endowed donations | 439 | 34,428 | 439 | 34,428 |
| Other income | 4,785 | 3,460 | 4,785 | 3,460 |
| Other operating expenditure | 702 | 1,070 | 702 | 1,070 |
| Operating/capital grants received | 288 | 134 | 288 | 134 |

NATIONAL UNIVERSITY OF SINGAPORE AND ITS SUBSIDIARIES

NOTES TO THE FINANCIAL STATEMENTS

FOR THE FINANCIAL YEAR ENDED 31 MARCH 2020

40 FUNDS HELD IN TRUST

The Group acts as a trustee to the Derek Hewett Foundation 2009 (The Foundation), which was constituted by a trust deed dated 21 January 2010. The Foundation is a charity registered under the Charities Act.

The Foundation was established with the object of providing education for students of the Group through the award of bursaries.

Separate bank account has been set up to account for funds under the Foundation. The Group will maintain the bank balance and make payments on behalf of the Foundation. As at the reporting period ended 31 March 2020, the fund balance held in trust by the Group is S\$4,305 (2019: S\$3,275).

41 EVENT OCCURRING AFTER THE REPORTING PERIOD

- Subsequent to year-end, on 27 May 2020, the Company fully paid the S\$400,000,000 5-year fixed rate notes. On 3 June 2020, the Company issued its inaugural S\$300,000,000 10-year Green Bond, at a fixed coupon rate of 1.565% per annum. The fixed rate note will mature on 3 June 2030.
- The Coronavirus Disease (COVID-19) outbreak and the measures taken to contain the spread of the pandemic have created a high level of uncertainty to global economic prospects. The Circuit Breaker ("CB") measures in Singapore started on 7 April 2020 and businesses which are deemed non-essential have to halt operations. There is minimal disruption to the Group as staff are working from home and classes are moved to e-learning during CB period. The Singapore government has put in place schemes to help enterprises deal with financial difficulties caused by the pandemic. The Group is working on Resilience and Growth Initiatives with the support from government grant to assist the affected students and graduating students.

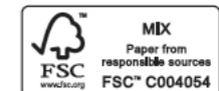
As a result of the volatility in the markets globally, the Group expects its investments to be affected somewhat. As the situation is still fluid and rapidly evolving, the Group does not consider it practical to provide quantification or estimate of its potential impact to the Group. Management is monitoring the situation closely and will review its financial strategies in order to manage the financial impact to the Group. The Group has taken measures to sustain its operations, such as setting up of a Risk Mitigation Fund under the Endowment Funds to cushion the impact of market volatility, and its investment policy to maintain a reasonable liquidity profile of its investments to meet contingent capital or funding requirements.

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Duke-NUS Employee Handbook

For Faculty

FOREWORD

This handbook describes the organization of Duke-NUS Medical School (Duke-NUS), appointment terms and conditions, code of conduct and various policies and procedures that are applicable to faculty and other academic staff members. It intends to provide a general guide and overview on appointment-related matters, without replacing the specific provisions of the contract of service.

Please note that the information in this handbook is subject to change and will be updated as necessary. In this regard, the School reserves the right to amend, modify or supersede any policy or procedure referred to in this handbook. Where any point in this handbook differs from the notices / circulars that the School may issue from time to time, the latter takes precedence.

Duke-NUS faculty shall be bound by and conform with all other policies, rules and regulations affecting the School employees as may be in force from time to time including, but not limited to, those in this Handbook.

Should you require more information, please do not hesitate to approach Duke-NUS Human Resources Department.

We wish you a fulfilling period of service with the School.

Human Resources Department
February 2019

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1 The Organization

1.1. Message from the Dean

Welcome aboard Duke-NUS! I am delighted to have you as a part of our school that trains doctors as clinicians and researchers who actively contribute to the advancement of medical knowledge. Since our establishment in 2005, we have made much progress in building Duke-NUS into what it is today – a beacon of excellence in biomedical sciences research and medical education.

Medicine has advanced with the progress of science but the practice of medicine is also an art. It requires not only the application of innovative and creative approaches, but also energy and passion to deliver transformational research, education and service to the community to address the healthcare needs of Singapore.

You are now a part of the team where staff and faculty work together collaboratively, are committed, and have the perseverance to achieve our goals of transforming medicine and improving patients' lives. I am confident that you will gain satisfaction and inspiration from working alongside your colleagues and immersing yourself in the culture of the school. We may not all be doctors and medical researchers but we all have an important role to play in creating and shaping the future of medicine and science.

Do take some time to familiarise yourself with the various employment terms and conditions listed in this employee handbook. It will help you to get a good head start as you embark on your career journey with us. I wish you a fulfilling experience and many opportunities to contributing and learning, both personally and professionally.

Professor Thomas Coffman
Dean, Duke-NUS Medical School

1.2. Our Vision

Transforming Medicine, Improving Lives

1.3. Our Mission

Nurture clinical innovators and translate discovery into better health

- Educate pioneering clinicians
- Innovate to enhance health
- Inspire excellence

1.4. Our Values

- **Courage**
We dare challenge status quo in this fast-evolving and increasingly complex world. More than preparing for the future, we shift paradigms. We create the future.
- **Integrity**
We honour honesty and accountability above all that we do; these being the foundation of our practice and relationships.
- **Compassion**
All that we do begins with care for human lives. We act with intent for the betterment of humanity.
- **Collaboration**
We embrace diversity for breadth and depth of expertise that enable us to forge ahead with new discoveries and possibilities.

1.5. About Duke-NUS

The need for a graduate medical school

The beginnings of Duke-NUS can be traced to 2000, when Singapore launched an ambitious Biomedical Sciences Initiative designed to make the country the biomedical hub of Asia and to attract both research and health sector manufacturing capabilities to Singapore.

In the Initiative, the government has invested heavily to accelerate development in the biomedical sciences. It has offered incentives to attract companies to Singapore, and is funding research institutes devoted to genomics, bioinformatics, bioengineering, nanotechnology, molecular and cell biology, and cancer therapies.

In 2001, a Medical Education Review Panel chaired by Lord Oxburgh of England evaluated the plan and recommended that Singapore establish a graduate medical school (Duke-NUS) to produce the highly trained physician-scientists needed to support the Biomedical Sciences Initiative.

Duke-NUS is intended to complement the National University of Singapore's (NUS) undergraduate medical school, based on the British model of medical education. These students enter medical school after completing their Singapore-Cambridge General Certificate of Education (GCE) Advanced Level examinations (or equivalent) and then pursue a five-year curriculum towards a medical degree. According to the Ministry of Education, the establishment of a graduate medical school will increase the supply of doctors practicing in Singapore, give the country the flexibility to produce more physicians to meet future needs, and train doctors who are exposed to clinically-related research, thus increasing the nation's capacity to develop a vibrant biomedical hub.

Partnering with Duke

The government of Singapore solicited Duke's interest in helping create a new graduate medical school because of the Medical Center's renowned reputation and its School of Medicine's distinctive educational program, research activity, and faculty resources, according to the Ministry of Education.

Duke was likewise interested in the partnership, with its leaders citing opportunities to advance global health; form collaborations with NUS faculty and with academic and private research groups at Biopolis and elsewhere in Singapore to accelerate translational research and other research endeavors at Duke; and aid recruitment and retention of excellent faculty at both locations.

Discussions began in earnest in 2002 when Singapore's then Deputy Prime Minister Dr. Tony Tan, Minister for Manpower Dr. Ng Eng Hen and NUS President Professor Shih Choon Fong visited Duke University to discuss a partnership to establish the school. In 2003, Duke University and NUS signed a Memorandum of Understanding and in 2005, the partnership was formalized to establish the new graduate medical school, named Duke-NUS Graduate Medical School Singapore.

Creating Duke-NUS

Under the agreement, the Singapore government is making a significant investment to establish the new school as part of its national strategy to become a leading center for medical research and education. The school's curriculum is patterned after that of the Duke University School of Medicine. The school is part of the NUS system, but unique in that it is overseen by a Governing Board including representatives from Duke.

Dr. R. Sanders Williams, then Dean of the Duke University School of Medicine, became Founding Dean of Duke-NUS. He led a Duke committee that oversaw the development of the school, including facilities planning, faculty recruitment, and student admissions. The first Duke-NUS staff were recruited in summer 2005, and the Duke-NUS Interim Campus opened in August 2005. Recruitment of the inaugural class began in early 2006, and construction of the Duke-NUS permanent facilities began in winter 2006.

"Singapore has made a vast commitment to becoming a leader in biomedical research, and they also fund an enviable level of social support and health services for their population," Williams said when the partnership agreement was signed. "The

leadership of Duke and the Singapore government share many values, and we believe our partnership will lay the foundation for health advances that will have global impact."

Our Stakeholders

The following are our key stakeholders:

1. Duke University
2. National University of Singapore
3. Ministry of Education
4. Ministry of Health
5. Singapore Health Services (SingHealth)

1.6. Governing Board

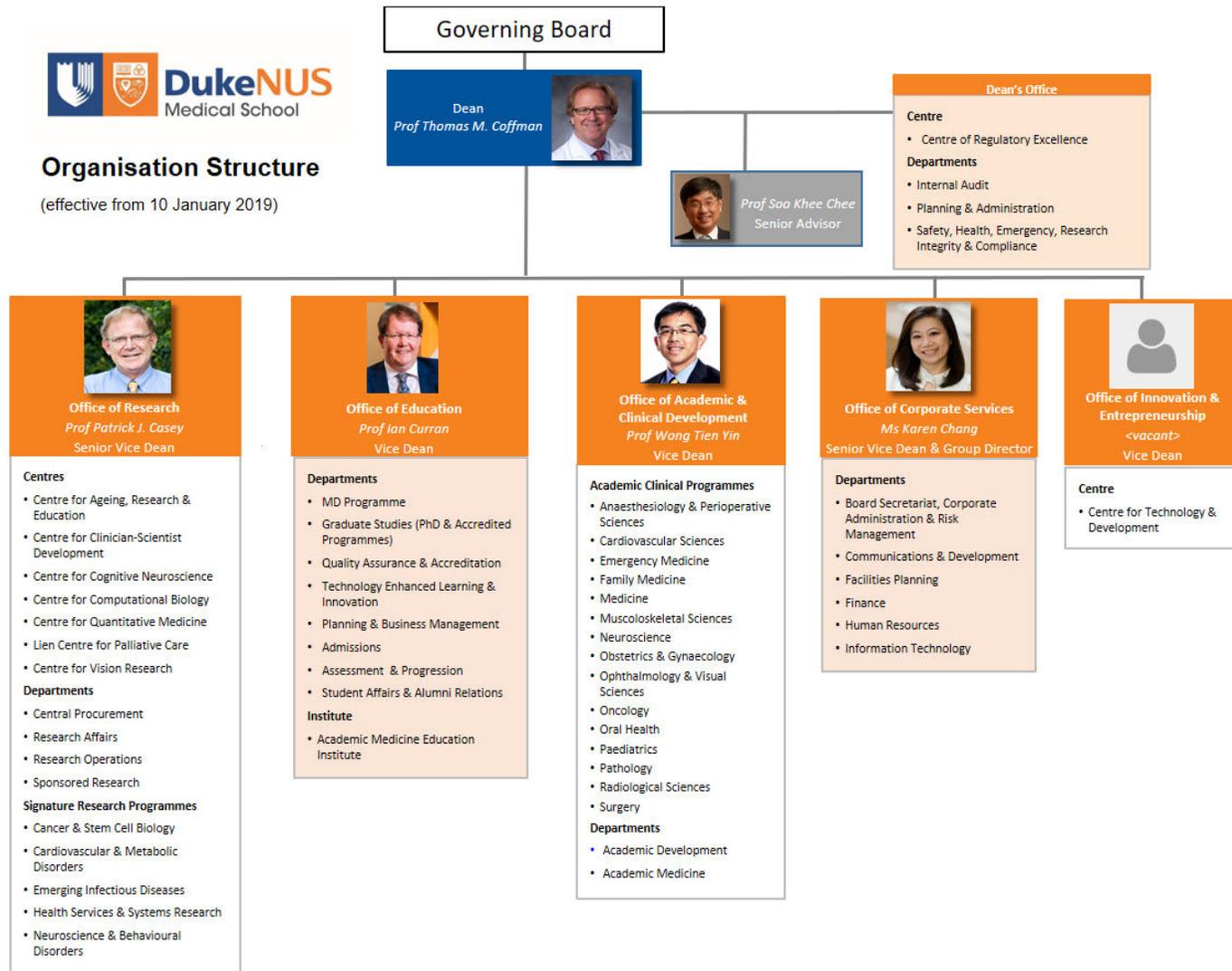
The Governing Board of the School provides strategic direction and oversight on the development and management of the School in furtherance of its objectives in education and research, to establish the School as a research-oriented graduate medical school of international repute, and ensures that the funds and assets of the School are properly accounted for and safeguarded.

The Governing Board is the approving authority for our Signature Research Programs as well as for the appointment, promotion, award of tenure and dismissal of all Duke-NUS faculty members.

1.7. Scientific Advisory Board

An international Scientific Advisory Board comprising of eminent researchers shall be appointed by the Governing Board to advise the Governing Board and the Dean on the research programs and projects of the School, and to carry out regular reviews of these programs and projects for the Governing Board.

1.8. Organization Chart



2 Faculty Structure & Employment Terms

2.1 Regular Rank Faculty Appointments

I. Tenure Tracks

- a. Faculty members are subjected to NUS tenure policies
- b. There are three levels, namely, Assistant Professor, Associate Professor and Professor
- c. There are three tracks:

Track IA. Basic Scientist Track

For faculty members who spend the majority of time on research and the remainder on education and administration.

Track IB. Clinician-Scientist Track

For clinically-certified faculty members who spend the majority of time on research and the remainder on clinical/education/administration.

Track IC. Clinician/Scholar Track

Primarily for senior career-track administrators or educators who have accomplished academic credentials. Such individuals may also have significant research or clinical activities, but administration and/or curriculum development/innovation in medical education is currently a principal focus. It is anticipated that only a few select appointments will be made on this track.

II. Non-Tenure Tracks

- a. Faculty members must be public sector employees, e.g. with primary appointment at a public University, Research Institute, or Hospital/Health Group
- b. The contracts are on annual or multi-year renewable basis; Associate Professor and Professor would generally be 3 years.
- c. There are four levels, namely, Instructor, Assistant Professor, Associate Professor and Professor. If faculty member holds a regular rank appointment at NUS, the same rank will be used at Duke-NUS; such joint appointment requires permission of their respective Head of Department and Dean. Duke faculty seconded to Duke-NUS at their current Duke rank can be appointed in Track II category at discretion of the Dean of Duke-NUS. No APT action is required.
- d. There are three tracks:

Track IIA. Research Track

For faculty members who spend majority of their academic effort on research and who have no clinical commitments. Academic research effort may include significant duties in managing core facilities.

Track IIB. Clinical/Research/Education/Administration Track

For faculty members who have effort on clinical activities, but with significant academic effort on research – Track IIB (Research)- or medical education/ academic administration – Track IIB (Education).

Exceptional individuals in these tracks would be eligible for consideration for tenured appointments by moving their appointment to respective Track I category even though the tracks are not tenure-track per se.

Track IIC. Practice Track

For faculty members with international regulatory expertise from diverse backgrounds including law, health sciences, politics, and many others. There are two positions, namely, Associate Professor (Practice Track) and Professor (Practice Track). AP Committee is required to review the appointment criteria.

Please refer to Figure 1 for detailed flowchart of appointment processes.

2.2 Adjunct Faculty Appointments

- a. No minimum effort requirement.
- b. A large number will be clinicians who participate in medical education or medical care at SingHealth. May also be conferred upon individual from private sector or research institutes who have significant involvement in Duke-NUS research or educational activities. May also be used for courtesy- type appointments.
- c. There are four levels, namely, Instructor, Assistant Professor, Associate Professor and Professor; all preceded by the term “Adjunct”

2.3 Visiting Faculty Appointments

- a. Generally conferred upon visiting academics (e.g. those on sabbatical leave).
- b. Generally would have four levels: Instructor, Assistant Professor, Associate Professor and Professor; all preceded by the term “Visiting; the appointment level should correspond to the level the individual has achieved in their home institution. In addition, special titles such as “Visiting Fellow” may be used if the individual does not have an academic appointment at their home institution (e.g. they are coming from a research institute rather than a university, or Distinguished Visiting Professor if the institution wishes to provide an additional honorific).

Please refer to Figure 2 for detailed flowchart of appointment processes for all other appointment except for Practice Track

Figure 1 - Duke-NUS Appointment & Promotion Flowchart (For Practice Track)

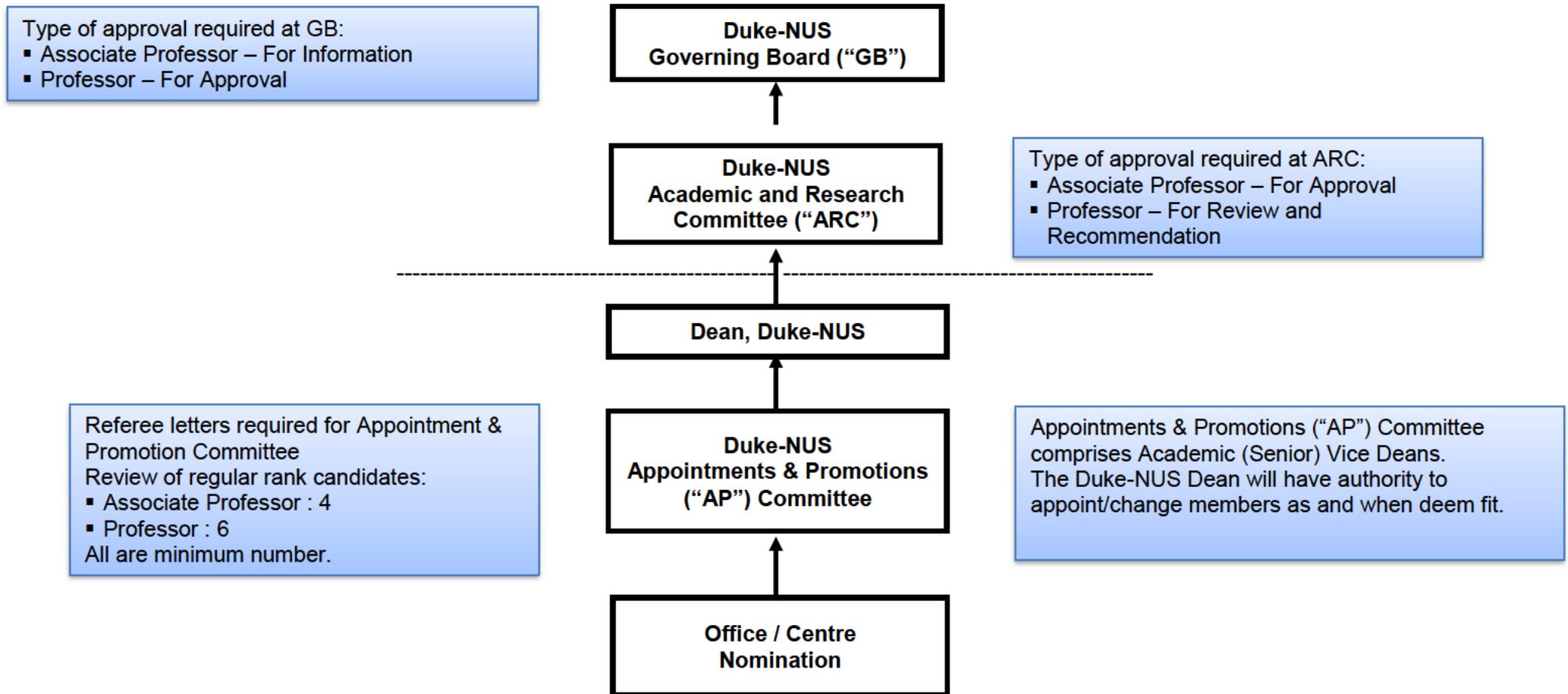
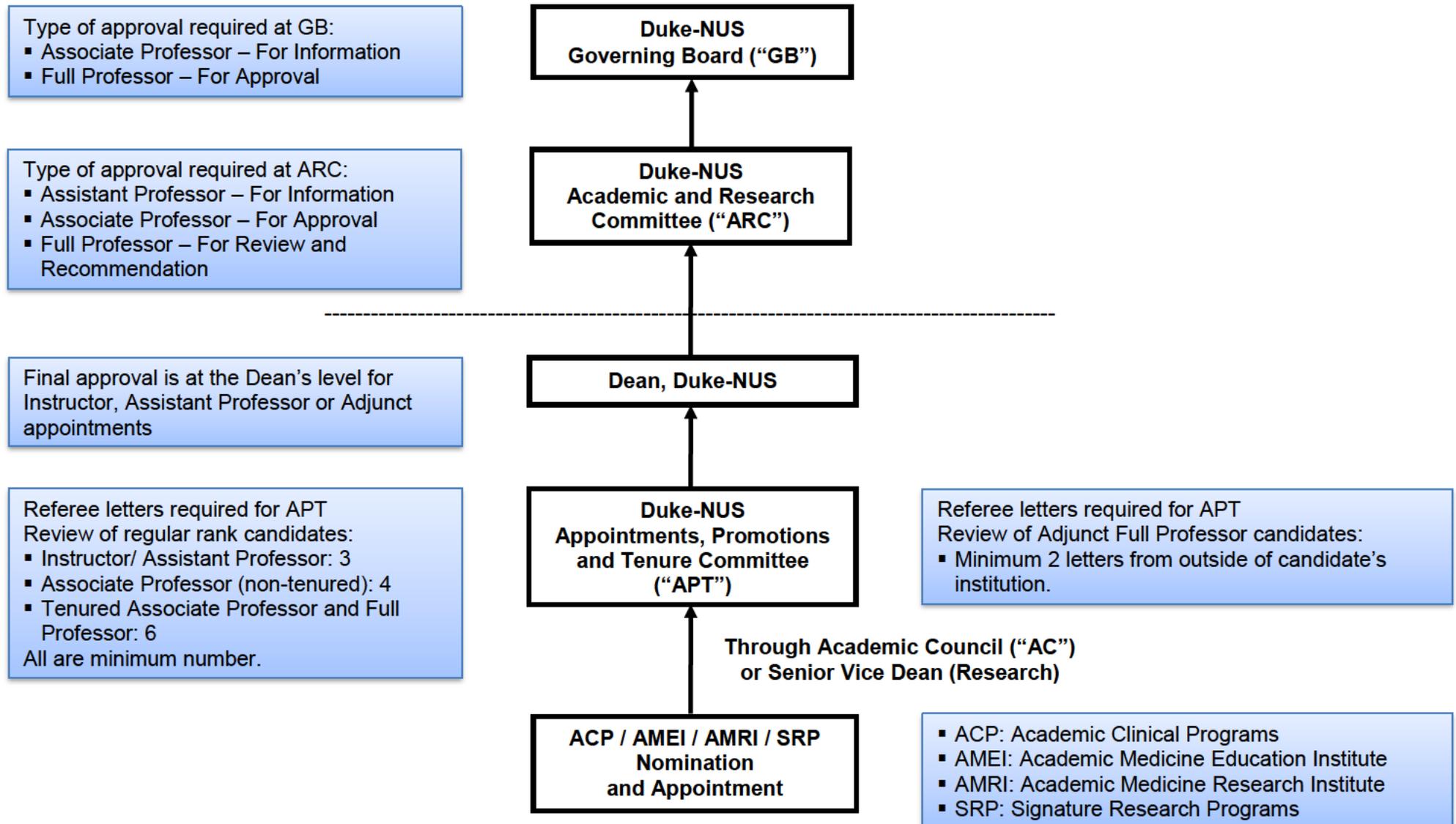


Figure 2 - Duke-NUS Faculty Appointment, Promotion & Tenure Flowchart



2.4 Chairs and Emeritus Professorships

Chairs

Chairs may be awarded at the University or Faculty/School level. Chairs are ranked as follows in terms of precedence:

- University Professorship;
- Centennial Professorship;
- “Named Donor” Distinguished Professorship, funded through donations; and Distinguished Professorship; and
- “Named Donor” Professorship, funded through donations.

Faculties/Schools may award faculty-level Term Chairs in the following order of precedence:

- Provost’s Chair; and
- Dean’s Chair.

The details of Chairs are set out in the paper on [Chairs](#).

Emeritus Professorships

The title of Emeritus Professor is conferred to full professors on or near retirement in recognition of their sustained contributions in terms of distinguished scholarship and conspicuous service to the University. The details of Emeritus Professorships are provided in the [Emeritus Professorships](#) paper.

2.5 Policies Regarding Tenure

Faculty members are obligated to maintain minimum standards of teaching, scholarship, service and professional conduct. Failure to meet the requirements of appointments may be grounds for the University to revoke the tenure of tenured faculty members, in accordance to the process in the [Tenure Revocation Policy](#).

2.6 Faculty Leave

The guidelines and manual on leave matters are available at [Policy on Leave Matters](#)

The above guidelines are for full-time faculty where Duke-NUS is the primary employer and should be read in conjunction with the terms and conditions of service applicable to each faculty member.

2.7 Learning and Development

The School is committed to providing an environment conducive to the continuous growth and development of employees. The following learning and development opportunities are available:

a) In-house Learning and Development Programmes

The Duke-NUS Learning and Development Framework is designed to facilitate staff development as they progress in their career, and set the parameters for a learning organisation. Apart from relevant short-training courses to build competencies and core skills set, the School also offers customised Leadership Development Programmes targeted at Executive & Professional, Faculty, Research and Associate staff who hold leadership and managerial responsibilities. Through a suite of experiential and applied training, personality profiling and appraisal, self-learning e-modules and networking sessions, participants will be able to learn, apply, gain feedback and reinforce the fundamentals of leadership through a systematic roadmap.

Roadmap for Leadership Development



This framework is designed to help staff hone their leadership skills as they progress in their career

b) External Courses and Professional Development

Faculty members may be sponsored to attend external courses, locally or overseas. They may seek professional development through attendance and participation at conferences, seminars, workshops and training attachments.

2.8 Long Service Award

The Long Service Award scheme enables the School to express its appreciation to faculty members for their commitment and dedicated service. The awards, which are in the form of cash awards, are given to eligible employees who have five years of service, and subsequently for each additional five years of service. Faculty members who cease full-time employment and undertake part-time appointment will no longer be eligible for the award.

The values of the cash awards are as follows:

| Length of Service | Awards |
|--|----------|
| 5 continuous years | S\$300 |
| 10 continuous years | S\$400 |
| 15 continuous years | S\$500 |
| 20 continuous years | S\$800 |
| 25 continuous years | S\$1,200 |
| 30 continuous years | S\$1,500 |
| 35 continuous years | S\$1,500 |
| 40 continuous years and every subsequent 5 years onwards | S\$2,000 |

For more information, please refer to NUS policy [here](#).

The School reserves the right to modify or withdraw any of the awards at any time.

2.9 Dean's Excellence Awards

<https://www.duke-nus.edu.sg/about/staff-awards/deans-excellence-awards>

The Dean's Excellence Awards is a top-tier biennial award scheme which honours employees for their high performance, achievements and exemplary outcomes in the three functional categories of Education, Research and Administration, as well as a category of Leadership. All Duke-NUS staff, including adjunct staff who have been in service for at least three years, are eligible to be nominated by their respective Heads of Offices for the awards.

2.10 Overseas Travel

Faculty members are entitled to take business or academic leave for the purposes of overseas travel for work related purposes. Faculty members are also entitled to a

subsistence allowance as well as coverage by the NUS Group Personal Accident Insurance and Overseas Medical Benefits scheme while away. For further information please refer to the [Overseas Travel Policy](#). Guidelines relating to industry sponsored travel are not included in the overseas travel policy and will be addressed below.

3 Conduct and Responsibilities

3.1 Code of Conduct

Faculty members are required to acquaint themselves, observe and comply with the University's Code of Conduct and all other rules and regulations that may be in force. A breach of the Code of Conduct or of any of the University's rules and regulations may lead to disciplinary action against the faculty member.

The University's Code of Conduct is based on the following fundamental ethical principles:

- Personal and Professional Integrity
- Respect for People
- Respect for the Law and University Governance

The [Code of Conduct](#) in its entirety may be accessed by clicking the web link.

3.2 Conflict of Interest

Faculty member must comply with the Conflict of Interest Policy for NUS Staff that is in force. They must ensure that their private activities and interests do not conflict with their professional obligations to the University.

When an individual is in a situation where there is potential violation of a prohibition, he/she should make a full disclosure and may request for an exception. Approval for an exception will be at the discretion of the University.

Faculty member must certify annually their compliance with the University's policy on conflict of interest and Related Policies. The full text of the [Conflict of Interest Policy](#) for faculty member may be accessed by clicking the web link.

Consultation Work & Non-Executive Directorship

The University supports consultancy work that will complement and enhance the faculty members' teaching and research, enable the faculty member to contribute to the development of their profession, serve the community and/or lead to entrepreneurial exploitation of research undertaken in the University. The nature of the work must be consistent with the mission and objectives of the University, requiring the special knowledge and expertise of the faculty. Included as consultancy work are non-executive directorships.

Faculty members who undertake consultancy work shall do so only in their personal capacity and not as employees, agents, or representatives of the University. In this

regard, faculty shall also ensure that the persons (including any individuals or organizations) engaging or making use of their services understand that they are acting solely as individuals and not as employees, agents, or representatives of the University. Without prejudice to the generality of the foregoing, University letterheads should not be used in any correspondence or reports, or otherwise in connection with the consultancy work.

In addition, faculty member shall abide by any regulation or rule on consultation work and non-executive directorships as may be prescribed by the University from time to time. (See [Consultation Work Scheme](#) and [Rules on Acceptance of Non-Executive Directorships](#).)

Industry Sponsored Travel

In accepting industry sponsorship to participate in meetings, conferences, seminars, workshops and events including those undertaken as part of research or clinical trials, faculty members have a responsibility to ensure that their participation in such collaborative efforts with the industry is consonant with the standards, character and responsibilities of the School. They should observe the following guidelines:

- a. Faculty members should not solicit sponsorship from the industry (private sector firms and businesses including manufacturers and/or suppliers of devices, products or services) to attend such events.
- b. Faculty members must not enter into any direct transactions with industry sponsors.
- c. While faculty members may participate in more than one such event in a year, they may not generally accept more than one sponsorship per year from the same sponsor.
- d. Industry sponsorship to attend such events should not be extended to the faculty member's immediate family.
- e. Travel and accommodation arrangements should be in keeping with the arrangements that would normally be made by other non-industry sponsors.
- f. The industry sponsor should not pay for other personal expenses of the faculty member.
- g. Faculty members should not allow their involvement in industry-sponsored research projects or clinical trials to influence their professional practice inappropriately. They should always maintain professional autonomy, independent judgment, and commitment to the scientific method.
- h. Faculty members must not allow their names to be used in ways that state or imply School endorsement in connection with project or product promotions.
 - i. Faculty members may attend meetings/conferences/seminars/workshops as part of a research project or clinical trial sponsored by industry provided such industry-sponsored research projects or trials have previously been approved by the School.
 - ii. Wherever possible in the course of Faculty member's presentations, generic names should be used rather than trade names. If specific products or services are mentioned, there should be a balanced presentation of the prevailing body of scientific information on the product or service and of reasonable alternative options. If unapproved uses of a product or service are discussed, faculty members must inform their audience of the fact.

Offers of sponsorship from industry must be directed to the Dean's Office, without naming particular beneficiaries.

The terms and dollar amounts, where appropriate, of the proposed sponsorship must be clearly spelt out, e.g. registration fees, air travel, lodging and subsistence expenses.

The Dean's Office will write to the relevant Head(s) to invite nominations. The sponsored event or engagement must be relevant to the nominee's area of research interest, specialty or development.

The Dean's Office will respond to the sponsor(s) directly and request for disbursement to be made through Human Resources Department.

3.3 Guidelines on Public Communication

The essence of the School's guidelines on public communication is responsible communication that promotes, among other things, the exploring and developing of ideas. Duke-NUS refers to NUS for guidance on issues of public communication, and details of these guidelines may be obtained from the [Office of Corporate Relations](#) website.

3.4 IT-Resources – IT Security and Acceptable Use Policies

Duke-NUS refers to the NUS IT Security Policy, which defines the minimum security measures required for the protection of information systems as well as the information contained and processed by the systems. The NUS Acceptable Use Policy for IT Resources prescribes the appropriate behavior and use of IT Resources in an effective, ethical and lawful manner. Faculty members are required to adhere to the security policies and standards in the NUS IT Security Policy and NUS Acceptable Use Policy for IT Resources. Violations of these policies will be pursued in accordance with the appropriate disciplinary procedures. Details of the [NUS IT Security Policy](#) and [NUS Acceptable Use Policy for IT Resources](#) may be obtained from the Computer Centre's website.

3.5 NUS Data Use Policy

Duke-NUS refer to the NUS Data Use Policy to govern the appropriate use of the School's Data and the information derived from it so as to ensure confidentiality and privacy of such Data. Faculty members are required to adhere to the Data Use Policy. Violations of this policy will be pursued in accordance with the appropriate disciplinary procedures. More details of the policy can be found at [Data Use Policy](#).

3.6 Research Governance

Duke-NUS is committed to maintaining the highest standards of ethics and research integrity. It is a fundamental responsibility of faculty to adhere to absolute intellectual honesty and to ensure that the reputation of the School for scholarly integrity is preserved.

Duke-NUS faculty are advised to read through the [NUS Code & Procedures on Research Integrity \(Version RI-7\)](#) carefully since the School will regard breaches of it very seriously.

3.7 Research Compliance

Research on Human Subjects

All research involving human subjects and human tissues / cells / data will be subject to ethical review by Institutional Review Board (IRB). The appropriate IRB to review each protocol will be determined based on the subjects recruited for the study. NUS-IRB, SingHealth Central IRB and National Healthcare Group Domain Specific IRB are the ones most commonly engaged.

For matters related to IRB review, please contact Research Operations Department.

Collaborative Institutional Training Initiative (CITI) Online Program

As part of Duke-NUS' effort to ensure that our faculty members and staff involved in human subject research have undertaken basic research ethics training, all Duke-NUS faculty members and members of their research team, who are involved in any form of human subject research must complete the following CITI online course before submitting an application to an IRB.

- a. Biomedical Research Investigators
- b. Good Clinical Practice (GCP)

Duke-NUS faculty members should register for the CITI Online Program at www.citiprogram.org and chose National University of Singapore as their institutional affiliation.

3.8 Project Risk Assessment (OSHE)

a. Laboratory based Research Projects

The NUS Office of Safety, Health & Environment (OSHE) oversees all aspects of safety and occupational health in Duke-NUS. Duke-NUS has a safety & compliance team that serves as a liaison between the School and OSHE.

All staff undertaking lab-based research projects are required to conduct a project risk assessment to identify the safety and health risks associated with the project. Principal Investigators (PIs) are required to complete an application form through the Online Project Risk Assessment System (OPRAS).

The Risk Assessment process is as follows:

- i. Go to NUS OSHE website: <http://www.nus.edu.sg/osh/>
- ii. Select "Project Risk Assessment Submission"
- iii. Login to OPRAS using your User Name and Password
- iv. Select "Add New Form"
- v. Provide all details relevant to your project in the Risk Assessment Form

- vi. Save as draft. Once the form is ready for submission, submit to OSHE directly via online system
- vii. Hardcopy must be submitted to Research Operations
- viii. The hardcopy will be endorsed by Research Operations and will be forwarded to OSHE via mail
- ix. Upon approval, OSHE will forward the risk assessment approval to the PI and Research Operations

For more details, PI may visit the OSHE website at <http://www.nus.edu.sg/osh/index.html>

b. Non-laboratory based Research Projects

Projects/tasks that are purely deskbound, i.e. involving the use of computers, need not undergo any risk assessment. However, the PIs are required to submit a declaration form if the research is not laboratory based.

The declaration form for Non-Lab Based Research can be downloaded from the OSHE website. Completed form should be submitted to Research Operations Department for further processing.

3.9 Research on Animals (IACUC)

All research projects involving lab animals must receive prior approval from the appropriate Institutional Animal Care and Use Committee (IACUC). The Duke-NUS vivarium falls under the purview of the SingHealth IACUC, the application forms can be obtained from Research Operations. Alternatively the forms can be downloaded at <http://research.singhealth.com.sg/Ethics/IACUC/Pages/Default.aspx>.

All researchers handling lab animals must undergo the training course “Responsible Care and Use of Laboratory Animals” (RCULA) conducted by SingHealth or NUS and also go through the occupational health screening program. Researchers should contact the Research Operations Department for registration in the RCULA course and for enrolment in the occupational health program.

3.10 Industrial Collaboration & Technology Transfer

The NUS Industry Liaison Office (ILO) is a key element in Duke-NUS' drive for industry engagement and partnerships. ILO's mission is to promote industry collaboration, technology transfer and commercialization of the School's intellectual assets and expertise. It manages and protects the School's intellectual property and promotes collaboration between Duke-NUS and industry. More specifically, it helps to facilitate the translation of new discoveries and inventions by Duke-NUS faculty into useful products and services through licensing these technologies either to existing companies and / or new startups.

Faculty who are interested to find out more may login to <http://www.nus.edu.sg/enterprise/ilo/faculty/guidelines.html> for Guidelines and Forms.

Faculty members are to contact the Duke-NUS Research Affairs Department if they wish to put in place any research agreements with external parties. The Research

Affairs Department will coordinate with NUS ILO which will assist in the drafting and negotiation with external parties to facilitate collaborative research.

NUS Enterprise (ETP) provides an entrepreneurial and innovative dimension to the University's core research and educational activities. ETP aims to be a one-stop portal for students, academics and researchers to provide information and support for any entrepreneurial activities.

3.11 Publication Policy and Disclaimer Requirement

Faculty members should not distribute or otherwise publish, in an official capacity, anything that is libelous, defamatory, obscene, abusive, or that otherwise violates any law.

3.12 Dress Code

Faculty members are expected to dress professionally and appropriately at all times when they are at work.

3.13 Smoking on Campus

The School is a "smoke free" campus and the "smoke free" policy applies to all campus grounds and campus buildings. Besides ensuring compliance to the *Smoking (Prohibition in Certain Places) Act*, the School recognizes that smoking poses significant environmental and health risks to both smokers and non-smokers.

All smokers and facilities managers should be familiar with the *Smoking (Prohibition in Certain Places) Act*. Enforcement on campus will be carried out by the wardens of the Office of Campus Security. Enforcement outside the School is done by the police and inspectors from the National Environmental Agency.

In any dispute under this policy within the School, the health concerns of the non-smoking staff or students shall be granted priority. A Letter of Warning will be issued by the School for the first offence, and subsequent offences carry a maximum fine of S\$300. If you are charged under the *Smoking (Prohibition in Certain Places) Act*, the maximum fine is S\$1000.

Faculty members who wish to quit smoking may enroll in Smoking Cessation Clinics run by the University Health and Wellness Centre. A self-help manual on how to quit smoking is also available on request. The contact number is 6516-7333. Faculty members are also encouraged to refer students who are smokers to the Smoking Cessation Clinics.

3.14 Unauthorized Absence

Faculty members who are absent from work without authority or reasonable cause, shall be deemed to have vacated his/her post if he/she does not return within 7 days of the date from which the Duke-NUS Human Resources Department is notified of such absence.

3.15 Email Accounts

It is the responsibility of new staff to create their friendly e-mail account IMMEDIATELY upon receipt of their NUS computer account. The steps are as follows:

Step 1: Go to the NUS website at <https://exchange.nus.edu.sg/fea/>

Step 2: Click on “login here”

Step 3: Key in your user ID and password

Step 4: Type in your email address. It should begin with your first/given name followed by your last/family name, separated by a full-stop. Please see the examples below:

| <u>First/given name</u> | <u>Last/family name</u> | <u>Friendly email</u> |
|-------------------------|-------------------------|--|
| Luke | Francis | luke.francis@duke-nus.edu.sg |
| Bee Bee | Chan | beebee.chan@duke-nus.edu.sg |

Staff who have more than one email account are encouraged to use the email redirection to forward their Duke-NUS email to their primary email account. The steps are as follows:

Step 1: Go to the NUS website at <https://exchange.nus.edu.sg>

Step 2: Key in your user ID and password

Step 3: Click on “Email Redirection” on the left side

Step 4: Type in the external email address, tick the box “Keep a copy of the email in my original mailbox” and click on “save”

The email accounts of staff will be closed once they have left service. The Head of Office / Head of Department may write directly to NUS ITCare to request the keeping of the email account for a period of up to 3 months on needs basis.

CONFLICT OF INTEREST POLICY FOR NUS STAFF

1. **Overall**

- 1.1 This Policy applies to all NUS staff¹. A conflict of interest occurs when there is a divergence between an individual's private interests and his or her professional obligations to the University, such that an independent observer might reasonably question whether the individual's professional actions or decisions are determined by considerations of personal gain, financial or otherwise.
- 1.2 NUS is in a position of trust in relation to many external organizations. In addition, NUS staff have a responsibility to the government, donors, parents, students, and other sources of resources to use such resources prudently and ethically. Considerations for personal gain, financial or otherwise, must not influence the decisions or actions of individuals in carrying out their University responsibilities.
- 1.3 Accordingly, NUS staff should be sensitive to situations which could raise questions of potential or apparent conflicts between personal interests and the University's interests, should conduct their affairs so as to avoid or minimize such conflicts of interest, and must respond appropriately when conflicts of interest arise.

2. **Specific Prohibitions**

Without prejudice to the generality of Section 1 above and unless specific exceptions have been granted pursuant to Section 3 below, the following actions on the part of an individual NUS staff member are prohibited:

2.1 **Personal Gain**

Transmitting to outsiders or otherwise using for personal gain University-funded or supported property, work products, results, materials, property records, or information.

2.2 **Confidential or Privileged Information**

Using for personal gain or other unauthorized purposes, confidential or privileged information² acquired in connection with the individual's University-supported activities.

¹ "NUS staff" refers to all faculty and other teaching and research, administrative and professional and non-academic staff members.

² "Confidential or privileged information" includes, but is not limited to, documents so designated, medical, personnel, or security records of individuals; anticipated material requirements or price actions; knowledge of possible new sites for University-supported operations; and knowledge of forthcoming programs or of selections of contractors or subcontractors in advance of official announcements.

2.3 **Negotiations and/or Approvals**

Participation in negotiating or giving final approval to the following:

- 2.3.1 Arrangements (contractual or otherwise, and including but not limited to purchases, gifts, and adoption of textbooks, software, and/or other teaching or learning materials) involving the University (or a subdivision thereof) and/or the students for personal gain; or
- 2.3.2 Arrangements (contractual or otherwise, and including but not limited to purchases, gifts, and adoption of textbooks, software, and/or other teaching or learning materials) involving: (a) the University (or a subdivision thereof) and/or the students, and (b) the individual or entities in which the individual or an immediate family member³ has a financial relationship⁴ or with which the individual or an immediate family member has an employment or consulting arrangement; or
- 2.3.3 Employment of relatives of the individual in the University (or a subdivision thereof).

NUS staff members involved in any stage of the University procurement (UP) process shall declare and disqualify themselves from handling UP in which they or their close relatives have any financial relationship or other interest which may give rise to a conflict of interest.

2.4 **Gratuities and Special Favours**

Acceptance of gratuities, gifts, or special favors from private or public organizations or individuals with which the University does or may conduct business; or extending gratuities or special favors to employees of any sponsoring organizations.

2.5 **University Resources**

Use of University resources, including facilities, personnel, equipment, or confidential information, except in a purely incidental way, for any purposes other than the performance of the individual's University employment.

2.6 **Business Relations**

Acceptance of employment, an official relationship, or a consulting arrangement with another organization which has business relations with the University.

³ The term "immediate family member" includes a spouse, child, parent, sibling, parent-in-law or domestic partner.

⁴ "Financial Relationship" means a current or impending ownership interest in an entity. Shareholdings in publicly listed companies are excluded.

2.7 Commitment

Acceptance of employment, consulting, public service, or pro bono work which can result in conflicts with an individual's primary commitment of time and energy to the University.

In interpreting these provisions, common sense must prevail. If a reasonable person would question the action, it should be disclosed and an exception sought in accordance with Section 3 below.

3. Procedures for Exceptions

- 3.1 As it may be in the interest of the University to grant exceptions to the prohibitions prescribed in section 2 above, the following procedure is established:

Ad Hoc Disclosure and Request for Exceptions

- 3.2 Whenever an individual is in a situation where he or she may be potentially in violation of a prohibition, that individual should make full disclosure of the details of the situation on the on-line form for Ad-hoc Declaration of External Commitments, Close Relationships & Gifts/Gains which may be requested from myNUS Staff Portal-> eServices-> Declaration of External Commitments, Close Relationships & Gifts/Gains-> Staff Member-> Request Ad-hoc form. Once he/she completes and submits the on-line ad-hoc declaration form to request for an exception, it would be routed to the relevant Head of Department. If an individual is in a current situation where he or she may be in violation of a prohibition, that individual should *immediately* make full disclosure of the details of the situation (on the same Form), to the relevant Head of Department and request an exception.
- 3.3 Appointment holders shall address their disclosures and requests for exceptions as follows:

| <u>Appointment:</u> | <u>Address to:</u> |
|--|--------------------|
| Head of an academic department | Dean |
| Head of administrative department | Reporting Officer |
| Dean | Provost |
| Director of RI/RC | Reporting Officer |
| Academic staff holding appointment in central administration | Reporting Officer |

3.4 Heads of Departments, Faculty Deans and reporting officers who receive requests for exception shall review the situation and examine all facts thoroughly for apparent conflicts. Heads of academic departments may consult their Faculty Deans when reviewing the requests. If a Head of Department, Faculty Dean or reporting officer determines that the University would best be served by the granting of the requested exception, he or she may do so in writing with justification for the granting and delineating any conditions placed on the approval. Faculty Deans, Heads of Departments and reporting officers who receive requests for and grant exceptions to the prohibitions shall, at the end of each year⁵, provide a listing of such exceptions granted to the Provost, Deputy President or other designated officer.

4. **Oversight Committee**

An Oversight Committee shall be appointed by the President. The Oversight Committee may include NUS staff members and/or individuals not otherwise affiliated with the University, as long as none of them has vested interests in the outcome of the proposed action. The Oversight Committee shall adjudicate: (a) situations in which an individual NUS staff member wishes to appeal a decision of a Faculty Dean, Head of Department or reporting officer; and (b) conflict of interest situations referred by the President. The decision of the Oversight Committee shall be final and binding.

5. **Related Policies**

This Policy shall apply without prejudice to the following University policies related to conflicts of commitment and interest, as amended from time to time (the "Related Policies"). The Related Policies include, but are not limited to the following: Code of Conduct, Consultation Work Scheme, Policies Relating To University Intellectual Property and other rules and guidelines in the Faculty/Staff Handbooks. Unless otherwise indicated, in the event of any conflict or inconsistency between this Policy and the Related Policies, this Policy shall prevail. Individual Faculties and administrative departments may also impose additional conflict of interest policies on their staff members and those who use their services provided that such policies do not conflict with this Policy and/or the Related Policies.

6. **Responsibility**

The responsibility for avoiding conflict of interest or commitment rests, in the first instance, with the individual. However, Deans, Heads of Department and supervisors shall be alert to situations or work arrangements that create or may create conflict of interest or commitment and ensure that any apparent conflict of interest or commitment is addressed.

7. **Annual Certification and Disclosure**

To protect the University and its staff and students against allegations relating to conflicts of interest, NUS staff must certify annually to their Deans, Heads of Department or reporting officer their compliance with this Policy and the Related

⁵ Defined as academic year for academic staff and calendar year for administrative and professional and non-academic staff.
USRTK FOIA #62623 - 2026-03-06
001022

Policies and make the relevant disclosures on the on-line form on the Annual Declaration of External Commitments, Close Relationships & Gifts/Gains. For each Exercise on the Annual Declaration of External Commitments, Close Relationships & Gifts/Gains, staff members will receive an email notification to log on to https://my.intranet.nus.edu.sg/irj/portal/CI_stf_subm to submit their declaration on-line.

8. **Review**

- 8.1 The University may revise this Policy from time to time in its absolute discretion.
- 8.2 The University shall be entitled to make and issue additional guidelines with respect to this Policy from time to time and to revise or amend such as it deems fit. All such guidelines shall be deemed to be a part of the Policy.

Updated 15 April 2015

PAYMENT REQUEST FORM

| | | | | | |
|----------------------|---|------------------------------------|------------------------------|----------------------------------|-----------------------------|
| Prepared By: | Su Yadana | W-9 Form: | <input type="checkbox"/> YES | <input type="checkbox"/> ON FILE | <input type="checkbox"/> NO |
| Effective date: | 4/28/21 | FINANCE DEPARTMENT USE ONLY | | | |
| VENDOR/PAYEE: | The University of North Carolina at Chapel Hill | Vendor ID: | | | |
| Invoice#: | 01 | API#: | | | |
| PURPOSE/DESCRIPTION: | EID-SEARCH NIH/NIAID FUNDED WORK for UNC. INVOICE #01 | Initials: | | | |
| | | Dept: | 07 | | |
| | | Project: | 126 | | |
| | | Funding Source: | 7012 | | |
| | | Expense Code: | 52338 | | |

| | | |
|-----------------|--|--------------------------------|
| PAYMENT METHOD: | <input checked="" type="checkbox"/> WIRE | <input type="checkbox"/> CHECK |
|-----------------|--|--------------------------------|

SPECIAL INSTRUCTIONS:

| | | | |
|---|------------------|---------------------------|----------------------------|
| WIRE TRANSFER INFORMATION | | Contract Amount: | \$ 194,375.00 |
| Swift Code (Int'l): | | Contract start/end dates: | 17 June 2020 - 31 May 2021 |
| IBAN: | | payment request #1: | \$ 47,524.06 |
| Account Name: | (b) (6), (b) (4) | payment request #2: | |
| Account Number: | (b) (6), (b) (4) | payment request #3: | \$ - |
| Bank Name/Address: | (b) (6), (b) (4) | payment request #4: | \$ - |
| | | payment request #5: | \$ - |
| ABA or Routing Number | (b) (6), (b) (4) | payment request #6: | \$ - |
| Intermediary Bank Information (if applicable): | | payment request #7: | \$ - |
| | | payment request #8: | \$ - |
| | | payment request #9: | \$ - |
| CHECK INFORMATION: Recipient Mailing Address | | payment request #10: | \$ - |
| Office of Sponsored Research The University of North Carolina at Chapel Hill (b) (6), (b) (4) | | payment request #11: | \$ - |
| | | payment request #12: | \$ - |
| | | Contract Balance: | \$ 146,850.94 |

I certify that these costs were incurred on behalf of EcoHealth Alliance and authorize payment.



Peter Daszak

P.I. / DESIGNEE PRINTED NAME
(b) (6)

P.I. / DESIGNEE SIGNATURE

4/28/21

DATE

INVOICE

The University of North Carolina at Chapel Hill



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Remit Payment To:

Office of Sponsored Research
The University of North Carolina at Chapel Hill
(b) (6), (b) (4)

Federal Tax ID # 56-6001393
Duns # 608195277

Invoice #: GM00171147

| | | | |
|-------------------------|--|---|---|
| Name of Sponsor: | EcoHealth Alliance 520 Eighth Avenue, Suite 1200 United States | <input checked="" type="radio"/> Interim Billing <input type="radio"/> Final Billing | Award Amount \$194,375.00 |
|-------------------------|--|---|---|

| | | |
|-------------------------|--|---|
| Sponsor Ref No.: | 19-5722 | Budget Period: From: 06/17/2020 To: 05/31/2021 |
| UNC Award No.: | A20-1625-001 | |
| Award Title: | Understanding Risk of Zoonotic Virus Emergence in EID Ho | |
| Project ID: | 5119959 | |

email invoices to: (b) (6), (b) (6) and (b) (6)

| <u>DESCRIPTION OF SERVICES</u> | EXPENDITURES | |
|--------------------------------|------------------------------------|--------------------------|
| | Current 01/01/2021 - 03/31/2021 | Cumulative 03/31/2021 |
| Salaries | \$8,162.83 | \$8,162.83 |
| Fringe Benefits | \$2,101.80 | \$2,101.80 |
| Supplies | \$20,297.44 | \$20,297.44 |
| Total Direct | \$30,562.07 | \$30,562.07 |
| Indirect Cost | \$16,961.99 | \$16,961.99 |
| TOTAL | \$47,524.06 | \$47,524.06 |

Payment due upon receipt of invoice

PLEASE RETURN A COPY OF THIS INVOICE WITH YOUR PAYMENT

By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812).

| | | |
|-------------------------------------|------------------|-------------|
| Typed Name of Fiscal Officer | Signature | Date |
| Colleen A Williams | (b) (6) | 04/16/2021 |

For questions regarding invoice, please contact Brian Gerwig
 Phone: 919/966-3411 FAX: 919/962-5011
 OSRBILLING@unc.edu

| | |
|---|--|
| ACH Payments | |
| Account Name: (b) (6), (b) (4) | |
| Financial Institution: (b) (6), (b) (4) | |
| ABA or Routing Number: (b) (6), (b) (4) | |
| Account Number: (b) (6), (b) (4) | |



CONTRACT AGREEMENT

NAME: The University of North Carolina at Chapel Hill

ADDRESS: 104 Airport Dr Suite 2200
Campus Box 1350
Chapel Hill, NC 27599-1350

PROJECT TITLE Understanding Risk of Zoonotic Virus Emergence in EID Hotspots of Southeast Asia

PERIOD 17 June 2020 – 31 May 2021

PHONE: (b) (6)

EMAIL: (b) (6)

FUNDING SOURCE: NIH/NIAID/CREID/07-049-7012-52338

DUNS NUMBER: 608195277

AGREEMENT AMOUNT: \$194,375.00

This Agreement is by and between EcoHealth Alliance, a United States tax-exempt organization, located at 520 Eighth Avenue, Suite 1200, New York, New York, 10018, and the University of North Carolina at Chapel Hill.

An authorized representative of EcoHealth Alliance has executed the original version of this agreement. Please sign the digital copy and return it via email. If EcoHealth Alliance does not receive a signed digital copy within thirty (30) days of mailing, this agreement may be deemed revoked. This agreement shall be effective only upon the receipt of a signed version by EcoHealth Alliance.

I. TERM AND AMOUNT OF THE AGREEMENT

Subject to the continued availability of funding for this project, the term of this agreement shall be as per the period stated above, renewable for an additional term solely by written agreement between the University of North Carolina at Chapel Hill and EcoHealth Alliance.

The amount of the contract as indicated on the preceding page and detailed in **Attachment C: Project Budget** is to be disbursed according to the Disbursement of Funds section below and all other details as elaborated in the Financial Responsibilities section below. All deliverables and project details are elaborated in **Attachment B: Scope of Work**.

II. CONDITIONS OF THE AGREEMENT

The laws of the United States place certain restrictions on the use of funds awarded to organizations by charitable trusts and foundations. Therefore, the University of North Carolina at Chapel Hill agrees to the following terms and conditions:

1. **Internal Revenue Code:** Funds awarded by EcoHealth Alliance may not be used for any forbidden political activities or for any purposes prohibited by the United States Internal Revenue Service Code.
2. **Foreign Corrupt Practices Act of 1977: as amended:** The University of North Carolina at Chapel Hill agrees to be bound by this act that prohibits individuals and entities from making payments to foreign government officials for the purposes of obtaining business. This includes the offer, either directly or indirectly, of anything of value, to a foreign government official to influence that official in his or hers official capacity to do or omit any act in violation of their official capacity or lawful duty, or to secure any improper advantage in order to assist in obtaining or retaining business for or with, or directing business, to any person.

The University of North Carolina at Chapel Hill's directors, officers, employees and agents have not and will not offer, pay, promise or authorize the payment, directly or indirectly through any other person or entity, of any monies or anything of value to any governmental official or employee or any political party or candidate for political office, for the purpose of inducing or rewarding any favorable action or influencing any act or decision of such official or of the government.

Funds in this agreement may not be used to finance the travel, per diem, hotel expenses, meals, conference fees or other conference costs for any member of a foreign government's delegation to an international conference sponsored by a public international organization, except as otherwise agreed upon by EcoHealth Alliance and the University of North Carolina at Chapel Hill.

3. **Support for Acts of Terror:** The University of North Carolina at Chapel Hill certifies and represent that they will be bound by U.S. anti-terrorism legislation that prohibit having transactions with and providing material support or resources to individuals or groups that engage in or support acts of terror and that the University of North Carolina at Chapel Hill does not engage in or support, directly or indirectly, acts of terror.
4. **Financial Conflict of Interest:** The University of North Carolina at Chapel Hill certifies and represents that no Significant Financial Conflict of Interest exists regarding PI Ralph Baric participation in this project that would influence their research. They furthermore agree that if such a conflict develops during the course of this project they will promptly notify and disclose that conflict in writing to the EHA Principal Investigator and the EHA Chief financial Officer and may be required to develop a plan of corrective action to resolve that matter. This requirement shall extend to all named personnel related to this project.
5. **Federal Funding Accountability and Transparency Act:** The University of North Carolina at Chapel Hill agrees to fill out **Attachment A: FFATA** and provide EcoHealth Alliance with all information required by this law including, if required, executive compensation data for

publication on applicable US government websites. The University of North Carolina at Chapel Hill shall obtain a unique DUNS number from Dun & Bradstreet and shall provide it to EcoHealth Alliance.

6. **Non-Discrimination Policy:** The University of North Carolina at Chapel Hill will follow a comprehensive, consistent, and non-discriminatory policy to the extent it can accomplish this goal within the scope of the program objectives.

The University of North Carolina at Chapel Hill acknowledges that EcoHealth Alliance is implementing, and over the course of this agreement will continue to implement, reasonable monitoring and oversight to assure the continuing truth of these representations and certifications and that, on reasonable request, the University of North Carolina at Chapel Hill will provide documentation of the monitoring and oversight of these efforts.

Notwithstanding any term to the contrary, EcoHealth Alliance may terminate this contract with a thirty (30) business day written notice if it determines that the University of North Carolina at Chapel Hill fails to comply with the conditions stated in section II of this contract and the University of North Carolina at Chapel Hill has not cured such breach within the thirty (30) day period. In the event of termination, regardless of whether or not termination was due to breach of this contract, EcoHealth Alliance shall pay the University of North Carolina at Chapel Hill for all approved expenses and non-cancellable obligations made prior to the effective date of termination.

III. USE OF FUNDS

The contract monies, including any interest earned, may only be used for the purpose(s) stated in this agreement, as contained in the approved budget in **Attachment C: Project Budget** and detailed in **Attachment B: Scope of Work**.

Funds may not be expended for any other purpose without the prior written approval of EcoHealth Alliance. Should there be a material change in the purpose, character, or method of operation of the agreement, the University of North Carolina at Chapel Hill agrees to give prompt and detailed written notice to EcoHealth Alliance. The contract project shall be performed to EcoHealth Alliance's satisfaction as determined by EcoHealth Alliance.

Where appropriate, the University of North Carolina at Chapel Hill agrees to conform to accepted animal care and use practices as laid out in the latest IACUC, if applicable, approved by EcoHealth Alliance, and filed with the appropriate regulatory authorities. The University of North Carolina at Chapel Hill also agrees to follow all requirements regarding scientific conduct.

IV. NATURE OF RELATIONSHIP

The parties hereto intend by this agreement solely to specify the terms for the University of North Carolina at Chapel Hill's use of EcoHealth Alliance contract funds. Nothing in this agreement shall be construed as creating or constituting the relationship of employer and employee between EcoHealth Alliance and the University of North Carolina at Chapel Hill or the continuation of funding from EcoHealth Alliance. During the course of completing the contract project work, the University of North Carolina at Chapel Hill remains a distinct and separate legal entity from that of EcoHealth Alliance.

The University of North Carolina at Chapel Hill agrees to conform to the laws and regulations of the location in which they operate and obtain all required permits, agreements and insurance required by local authorities.

V. REPORTING REQUIREMENTS

The University of North Carolina at Chapel Hill agrees to fulfill the program scope of services and reporting requirements that are incorporated into this agreement and detailed in **Attachment B: Scope of Work**.

VI. PHOTOGRAPHS AND VIDEO

EcoHealth Alliance shall own and have the right to use the recorded media (photos, video, audio) notwithstanding any licenses or other rights granted to the University of North Carolina at Chapel Hill herein. The University of North Carolina at Chapel Hill shall retain the unrestricted right to use the recorded media (photos, video, audio) for publication and for educational and research purposes. EcoHealth Alliance grants to the University of North Carolina at Chapel Hill an irrevocable, royalty-free, non-transferable, non-exclusive right and license to use, reproduce, make derivative works, display, and perform publicly any material first developed and delivered under this contract.

VII. PUBLICATION REVIEW AND APPROVAL

At least thirty (30) days prior to the publication of any written work made possible by this EcoHealth Alliance contract agreement, or involving data or information gained in whole or in part from research or activity conducted under this agreement, a copy of such work must be sent to EcoHealth Alliance for pre-publication review and recommendations for revision by EcoHealth Alliance. The University of North Carolina at Chapel Hill is under no obligation to make any changes to the requested publication, except to delete Confidential Information within the EcoHealth Alliance review period. EcoHealth Alliance will respond within thirty (30) days of notification. All published work must recognize EcoHealth Alliance or as may be otherwise determined EcoHealth Alliance and required by the parent award from NIH/NIAID in the acknowledgements. Written work that is not approved by EcoHealth Alliance may not recognize EcoHealth Alliance in the acknowledgements.

The Parties may communicate to one another information of a proprietary nature that is directly related to the Scope of Work ("Confidential Information"). "Disclosing Party" means the Party providing Confidential Information to the other Party, and "Receiving Party" means the Party receiving Confidential Information. The Receiving Party shall neither use nor disclose Confidential Information except as permitted herein during the term of the agreement and for five (5) years thereafter. The Parties shall disclose only the portion of Confidential Information necessary to conduct the Study. Confidential Information shall be disclosed in writing and identified as such, or if disclosed orally, shall be reduced to writing within thirty (30) days thereafter. The definition of Confidential Information does not include information is (i) at the time of disclosure, is in the public domain, or later becomes part of the public domain; (ii) was received by the Receiving Party from a third Party; (iii) was independently developed by Receiving Party; (iv) is approved for release by the Disclosing Party; (v) was in Receiving Party's possession at the time of disclosure; or (vi) is required to be disclosed pursuant to law, regulation, or a court order.

VIII. EVALUATION OF THE AGREEMENT

At its own expense, EcoHealth Alliance may monitor and conduct an evaluation of operations under this contract agreement. Evaluation may include scheduled visits to the University of North Carolina at Chapel Hill by representatives of EcoHealth Alliance in order to observe and discuss the funded project.

IX. DISBURSEMENT OF FUNDS

Unless otherwise stated below, contract funds shall be disbursed by EcoHealth Alliance based on the following criteria:

1. The University of North Carolina at Chapel Hill shall submit a valid invoice to EcoHealth Alliance indicating the services performed, as well as the time period covered by the invoice. The University of North Carolina at Chapel Hill should attach a transaction report needed to substantiate any out-of-pocket expenses.
2. The University of North Carolina at Chapel Hill must sign the invoice as certification that the services rendered, and all expenses incurred have been pursuant to the scope of service contained in this agreement.
3. EcoHealth Alliance will invoice the funding source for the value of the invoice and remit the funds to the University of North Carolina at Chapel Hill in a timely manner.
4. EcoHealth Alliance reserves the right to delay payment of any funds due to insufficient documentation submitted by the University of North Carolina at Chapel Hill.
5. The University of North Carolina at Chapel Hill acknowledges that all invoices must be submitted to EcoHealth Alliance no more than 45-days after the end of the contract. Invoices submitted after these periods may not be invoiced to the funding source and may not be paid to the University of North Carolina at Chapel Hill.

Unless otherwise directed, EcoHealth Alliance shall remit US funds by bank wire made payable to the University of North Carolina at Chapel Hill. The legal name of the University of North Carolina at Chapel Hill, who must be the sole owner of the account, must appear on the account. The University of North Carolina at Chapel Hill shall provide the following banking information to EcoHealth Alliance:

Organization Name: University of North Carolina at Chapel Hill
Bank Name: (b) (6), (b) (4)
Bank Address: [Redacted]
Account Number: [Redacted]
ABA Code: [Redacted]
Bank Telephone: [Redacted]

When a transfer is initiated EcoHealth Alliance will include (b) (6), (b) (4) in the message and notify:

Dawn DiLello, Cash Manager
Office of Sponsored Research

Phone: (b) (6) Fax: 919-962-5011
Email: (b) (6)

X. SUBCONTRACTOR 'S FINANCIAL RESPONSIBILITIES

As applicable, the University of North Carolina at Chapel Hill agrees to adhere to all requirements contained in 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards during the term of the agreement. The University of North Carolina at Chapel Hill acknowledges responsibility for Federal Audit requirements for funds received under this agreement and will provide EcoHealth Alliance a copy of their most current single audit report as may be provided. The University of North Carolina at Chapel Hill agrees that all overhead charged to this grant shall not exceed the amount permitted by the federal indirect cost rate in effect during the performance period. The University of North Carolina at Chapel Hill shall provide EcoHealth Alliance with a copy of their most current federal indirect cost rate agreement. If requested, the University of North Carolina at Chapel Hill will provide EcoHealth Alliance with a copy of a most current audit report. The University of North Carolina at Chapel Hill agrees to keep systematic records of all expenditures relating to this agreement. A quarterly financial report is required along with a signed invoice for services and reimbursement of expenses. Documentation of expenses, consisting of bills, invoices, receipts, logbooks (acceptable only for gasoline for cars and boats), etc., must be retained by the University of North Carolina at Chapel Hill for three (3) years after the close of the agreement period and must be available for inspection by representatives of EcoHealth Alliance at any time during this period. EcoHealth Alliance may, at its own expense, examine, audit, or have audited the records of the University of North Carolina at Chapel Hill insofar as they relate to activities supported by this agreement. All audits, inspections, and examinations must be reasonably requested, scheduled at least seven (7) business days in advance to occur during normal business hours, and are conducted at the sole expense of EcoHealth Alliance.

The University of North Carolina at Chapel Hill budget records must be itemized in the following categories, as applicable:

1. Salary or stipend – detailed by person, rate as applicable, date, and amount
2. Purchased services (e.g., field asst., boat hire) – detailed at the level of numbers 1 & 2, above. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
3. Vehicle associated costs – mileage to be indicated along with any associated costs: driver, repairs, insurance, etc. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
4. Travel – trip cost indicating departure/arrival dates and air/car/train/boat costs along with all boarding passes and receipts.
5. Accommodation – location and amounts per person along with all lodging receipts.
6. Other – any other items that do not fall into the categories above with same level of detail.

The University of North Carolina at Chapel Hill shall submit detailed invoices to EcoHealth Alliance detailing actual expenditures compared to the approved budget or contract total. Invoices are subject to review and approval of EcoHealth Alliance's principal investigator and/or grants and programs manager who shall certify that all expenses are in conformity with the award.

EcoHealth Alliance reserves the right to request documentation of all costs incurred as part of its normal practices in the use of federal funds.

XI. PURCHASE OF CAPITAL EQUIPMENT

All capital equipment, items valued over US \$5,000 and with a useful life of three years or more, purchased with agreement money remains the property of The University of North Carolina.

XII. UNUSED FUNDS

The University of North Carolina at Chapel Hill agrees to return to EcoHealth Alliance at the conclusion of the agreement period all agreement funds that have not been used to complete the project. The University of North Carolina at Chapel Hill may not use agreement funds after the end of the agreement period without the written consent of EcoHealth Alliance unless both University of North Carolina at Chapel Hill and EcoHealth Alliance agree to an extension of this contract and both parties sign this in the form of an amendment.

XIII. REVOCATION AND REVERSION

With forty-five (45) days written notification either party may terminate the Agreement without cause and cancel all unpaid installments of the agreement. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

In addition, either party may terminate the Agreement for cause upon thirty (30) days written notice to the other party of an uncured breach, if the other party has breached the Agreement and has not cured such breach within the thirty (30) day period. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

XIV. INSURANCE AND LIABILITY

By accepting the terms and conditions of this agreement, the University of North Carolina at Chapel Hill also accepts full responsibility for any and all applicable insurance needs to the extent permitted by the North Carolina Tort Claims Act for themselves and all other University of North Carolina at Chapel Hill, project related personnel, unless a separate arrangement has been made between EcoHealth Alliance and the University of North Carolina at Chapel Hill. By signing this agreement, both the University of North Carolina at Chapel Hill and EcoHealth Alliance relieve the other party from any and all liability due to accident or injury, or any other claims that may result from any activities conducted by the University of North Carolina at Chapel Hill in relation to the contract project.

XV. ADDITIONAL SUPPORT

In making this contract agreement, EcoHealth Alliance assumes no obligation to provide other or additional support to the University of North Carolina at Chapel Hill.

XVI. NOTICE

All correspondence and project reports should include the reference log number and follow the reporting guidelines described above. Copies should be directed to:

Dr. Aleksei Chmura
EcoHealth Alliance
520 Eighth Avenue, Suite 1200
New York, NY 10018

(t) (b) (6)
(e) (b) (6)

XVII. INDEMNIFICATION

The University of North Carolina at Chapel Hill and EcoHealth Alliance hereby mutually agree to indemnify and hold each other, respectively, and each other's affiliates, officers, employees, successors and assigns, harmless from and against claims, demands, actions, proceedings, investigation and right of action whether action is instituted or not and, if instituted, whether at any trial or appellate level, whether raised by the other party or a third party, arising from the intentional and/or negligent acts, errors or omissions of the University of North Carolina at Chapel Hill or EcoHealth Alliance to the extent permitted by the North Carolina Tort Claims Act.

XVIII. PARTIAL INVALIDITY

If any term or provision of this agreement to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

XIX. Biosafety

Laboratory

- EcoHealth Alliance will review and evaluate the lab biosafety at project research sites, provide annual trainings, and conduct laboratory inspections as needed.
- All partner laboratories are required to submit applicable approval documents from their Institutional Biosafety Committees (IBC) to EcoHealth Alliance for review following signed contracts, to ensure the compliance with *NIH and CDC guidelines* (link below) or comparable. No laboratory work may be conducted without confirmed receipt by EcoHealth Alliance of these documents.
- Biosafety review and evaluation for all partner laboratories will be conducted following the *NIH and CDC Guidelines* (link below) or comparable.
- Any accident or concern related to work funded under this award must be reported to EcoHealth Alliance and your Institutional Biosafety Committee (IBC) within 72 hours and will be investigated by an independent auditor. Work will be suspended immediately until an investigation is completed to the satisfaction of EcoHealth Alliance.

NIH Guidelines: https://www.dropbox.com/s/sa0g11uyfrn139t/NIH_Guidelines%202019.pdf?dl=0

CDC Laboratory Biosafety Manual:

<https://www.dropbox.com/s/bp1g59x6bq18ehl/CDC%20Biosafety%20Guidelines.pdf?dl=0>

Field

- EcoHealth Alliance will have oversight of the field work biosafety, provide training, and enforcing biosafety regulations in the field for all work with animals.
- In-country Institutional Animal Care and use Committee (IACUC) and Institutional Review Board (IRB) approvals to work with wild animals and human subjects are required to be submitted to EcoHealth Alliance following signed contracts. No fieldwork may be conducted without confirmed receipt by EcoHealth Alliance of these approvals.
- Review and approval will be conducted globally and locally with the IACUCs and IRBs.
- Field biosafety trainings will be conducted every other year or more frequently as necessary. Online refresher trainings will be made available every year for all members of teams working with wild animals, humans, and relevant specimens.

XX. OTHER PROVISIONS

This agreement may not be transferred or assigned by either party without the prior written consent of the other, and any breach of this prohibition will deem the agreement null and void.

Each party represents and warrants that its authorized agent(s) have duly executed this agreement on its behalf.

This agreement constitutes a single integrated contract expressing the entire agreement of the parties hereto. There are no other agreements, written or oral, express or implied, between the parties hereto, concerning the subject matter hereof, except the agreements set forth in this agreement. Any amendment to this agreement is effective only if set forth in writing and signed by both parties.

 (b) (6)

Dr. Peter Daszak
President
EcoHealth Alliance

 (b) (6)

for Terry Magnuson, PH.D.
Vice Chancellor for Research
The University of North Carolina at Chapel Hill

01/14/2021
DATE

01/13/2021
DATE

ATTACHMENT A: FFATA

The Federal Funding Accountability and Transparency Act (FFATA) was signed on September 26, 2006 and requires information on federal awards (federal financial assistance and expenditures) be made available to the public via a single, searchable website, which is www.USASpending.gov. All contractors receiving funds from EcoHealth Alliance are required to provide the following information as a condition of receiving funds.

Please answer the following questions Yes or No.

a. In the previous tax year, was your company's gross income from all sources above \$300,000?

Yes No

b. In the University of North Carolina at Chapel Hill's business or organization's preceding completed fiscal year, did its business or organization (the legal entity to which the DUNS number it provided belongs) receive (1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; **and** (2) \$25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

Yes No

c. Does the public have access to information about the compensation of the executives in the University of North Carolina at Chapel Hill's business or organization (the legal entity to which the DUNS number it provided belongs) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Yes No

d. Does your business or organization maintain an active registration in the System for Award Management (www.SAM.gov)?

Yes No

ATTACHMENT B: Scope of Work

Under the supervisor of Dr. Ralph Baric, Co-Investigator, coordinated by Dr. Timothy Sheahan, Research Scientist and Lab Coordinator, working close with a lab technician (TBN) the laboratory work will be implemented at the University of North Carolina at Chapel Hill to conduct systematic studies on the epidemiology, genetic evolution, interspecies infection mechanism and pathogenesis of a series of bat-borne CoVs, including:

- ***In vitro* Infection Experiment.** In vitro infection experiments using pseudoviruses carrying the spike proteins (wild type or mutants) or live viruses in cell lines of different origins, binding affinity assays between the spike proteins (wild type or mutants) and different cellular receptor molecules, and humanized mouse experiments.
- **Developing Luciferase Immunoprecipitation System (LIPS) Assay.** Develop LIPS assay for bat CoV antibody detection.
- **The Enzyme-Linked Immunosorbent Assay (ELISA) Testing.** Serological testing of bat serum samples with ELISA plates.
- **Meetings and travels.** Dr. Baric and lab team members will meet with other Co-PIs from EcoHealth Alliance and partners to refine study protocols, report results, and prepare publications

Coronaviruses (e.g. SARS-CoV, MERS-CoV), henipaviruses (HeV, NiV) and filoviruses (EBOV, MARV) are highly pathogenic viruses which emerged from zoonotic reservoirs to cause significant human morbidity and mortality. Like most emerging zoonoses, these pathogens originate in wildlife reservoirs, sometimes spilling over first into livestock ‘amplifier’ hosts, or directly into localized human populations with high levels of animal contact. Efforts to prevent emerging zoonoses have targeted these high-risk populations in regions prone to disease emergence, coupled with rapid surveillance systems designed to rapidly identify newly emerged virus pathogens in human outbreak settings. However, surveillance and control is hampered by inadequate information on the basic disease ecology, the availability of human cohorts at the interface between wildlife and human habitats, and cohorts of individuals in high-risk sites for secondary disease amplification and spread to sites around the world.

Dr. Baric will lead the studies at the University of North Carolina at Chapel Hill. He will design research strategies, interpret findings and review research outcomes with another investigator and Mr. Yount. At a regular basis, Dr. Baric will report the results of the team’s research to Dr. Daszak, and together, they will use this information to identify additional research priorities and design downstream studies. Drs. Daszak and Baric have published together in the past and participated on research project applications. He will work closely with another investigator and Tse and Mr. Yount to prepare timely reports, share research and discuss future research directions with the group.

ATTACHMENT C: PROJECT BUDGET

| YEAR 1 | | |
|--------------------------|-----------------|---------------------------------|
| SALARY | | 17 JUN 2020 - 31 MAY 2021 |
| Ralph Baric | Co-Investigator | (b) (6), (b) (4) |
| TBD | Co-Investigator | |
| Boyd Yount | Research Asst. | |
| Long Ping Victor Tse | Lab Tech | |
| TOTAL SALARY | | \$ 70,189.00 |
| FRINGE | 30.95% | \$ 21,726.00 |
| TOTAL SALARY + FRINGE | | \$ 91,915.00 |
| TRAVEL | | |
| Domestic | | \$ 1,000.00 |
| International | | \$ - |
| TOTAL TRAVEL | | \$ 1,000.00 |
| OTHER DIRECT COSTS | | |
| Materials & Supplies | | \$ 30,585.00 |
| Publication Costs | | \$ 500.00 |
| Animal Housing | | \$ 1,000.00 |
| TOTAL OTHER DIRECT COSTS | | \$ 32,085.00 |
| TOTAL DIRECT | | \$ 125,000.00 |
| INDIRECT | 55.50% | \$ 69,375.00 |
| TOTAL | | \$ 194,375.00 |

PAYMENT REQUEST FORM

| | | | | | |
|----------------------|---|------------------------------------|------------------------------|----------------------------------|-----------------------------|
| Prepared By: | Su Yadana | W-9 Form: | <input type="checkbox"/> YES | <input type="checkbox"/> ON FILE | <input type="checkbox"/> NO |
| Effective date: | 5/17/21 | FINANCE DEPARTMENT USE ONLY | | | |
| VENDOR/PAYEE: | The University of North Carolina at Chapel Hill | Vendor ID: | | | |
| Invoice#: | 02 | API#: | | | |
| PURPOSE/DESCRIPTION: | EID-SEARCH NIH/NIAID FUNDED WORK for UNC. INVOICE #02 | Initials: | | | |
| | | Dept: | 07 | | |
| | | Project: | 126 | | |
| | | Funding Source: | 7012 | | |
| | | Expense Code: | 52338 | | |

| | | |
|-----------------|--|--------------------------------|
| PAYMENT METHOD: | <input checked="" type="checkbox"/> WIRE | <input type="checkbox"/> CHECK |
|-----------------|--|--------------------------------|

SPECIAL INSTRUCTIONS:

| | | |
|---|----------------------------|---------------|
| WIRE TRANSFER INFORMATION | Contract Amount: | \$ 194,375.00 |
| Swift Code (Int'l): | Contract start/end dates: | |
| IBAN: | 17 June 2020 - 31 May 2021 | |
| Account Name: | payment request #1: | \$ 47,524.06 |
| Account Number: | payment request #2: | \$ 43,135.13 |
| Bank Name/Address: | payment request #3: | \$ - |
| | payment request #4: | \$ - |
| | payment request #5: | \$ - |
| ABA or Routing Number: | payment request #6: | \$ - |
| Intermediary Bank Information (if applicable): | payment request #7: | \$ - |
| | payment request #8: | \$ - |
| | payment request #9: | \$ - |
| CHECK INFORMATION: Recipient Mailing Address | payment request #10: | \$ - |
| Office of Sponsored Research The University of North Carolina at Chapel Hill (b) (6), (b) (4) | payment request #11: | \$ - |
| | payment request #12: | \$ - |
| | Contract Balance: | \$ 103,715.81 |

I certify that these costs were incurred on behalf of EcoHealth Alliance and authorize payment.



Peter Daszak

P.I. / DESIGNEE PRINTED NAME
(b) (6)

P.I. / DESIGNEE SIGNATURE

5/17/21

DATE

INVOICE

The University of North Carolina at Chapel Hill



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Remit Payment To:

Office of Sponsored Research
The University of North Carolina at Chapel Hill
C/O [REDACTED] (b) (6), (b) (4)

Federal Tax ID # 56-6001393
Duns # 608195277

Invoice #: GM00172130

| | | | |
|------------------|---|---|----------------------------------|
| Name of Sponsor: | EcoHealth Alliance 520 Eighth Avenue, Suite 1200 New York NY 10018 United States | <input checked="" type="radio"/> Interim Billing <input type="radio"/> Final Billing | Award Amount \$194,375.00 |
| | Sponsor Ref No.: 19-5722 UNC Award No.: A20-1625-001 Award Title: Understanding Risk of Zoonotic Virus Emergence in EID Ho Project ID: 5119959 | Budget Period: From: 06/17/2020 To: 05/31/2021 | |

email invoices to: [REDACTED] (b) (6) and [REDACTED] (b) (6)

| DESCRIPTION OF SERVICES | EXPENDITURES | |
|-------------------------|------------------------------------|--------------------------|
| | Current 04/01/2021 - 04/30/2021 | Cumulative 04/30/2021 |
| Salaries | \$2,347.73 | \$10,510.56 |
| Fringe Benefits | \$692.84 | \$2,794.64 |
| Supplies | \$24,699.07 | \$44,996.51 |
| Total Direct | \$27,739.64 | \$58,301.71 |
| Indirect Cost | \$15,395.49 | \$32,357.48 |
| TOTAL | \$43,135.13 | \$90,659.19 |

Payment due upon receipt of invoice

PLEASE RETURN A COPY OF THIS INVOICE WITH YOUR PAYMENT

By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812).

| | | |
|------------------------------|--------------------|------------|
| Typed Name of Fiscal Officer | Signature | Date |
| Colleen A Williams | [REDACTED] (b) (6) | 05/14/2021 |

For questions regarding invoice, please contact Brian Gerwig
Phone: 919/966-3411 FAX: 919/962-5011
OSRBILLING@unc.edu

| | |
|------------------------|-----------------------------|
| ACH Payments | |
| Account Name: | [REDACTED] (b) (6), (b) (4) |
| Financial Institution: | [REDACTED] (b) (6), (b) (4) |
| ABA or Routing Number: | [REDACTED] (b) (6), (b) (4) |
| Account Number: | [REDACTED] (b) (6), (b) (4) |



CONTRACT AGREEMENT

NAME: The University of North Carolina at Chapel Hill

ADDRESS: 104 Airport Dr Suite 2200
Campus Box 1350
Chapel Hill, NC 27599-1350

PROJECT TITLE: Understanding Risk of Zoonotic Virus Emergence in EID Hotspots of Southeast Asia

PERIOD: 17 June 2020 – 31 May 2021

PHONE: (b) (6)

EMAIL: (b) (6)

FUNDING SOURCE: NIH/NIAID/CREID/07-049-7012-52338

DUNS NUMBER: 608195277

AGREEMENT AMOUNT: \$194,375.00

This Agreement is by and between EcoHealth Alliance, a United States tax-exempt organization, located at 520 Eighth Avenue, Suite 1200, New York, New York, 10018, and the University of North Carolina at Chapel Hill.

An authorized representative of EcoHealth Alliance has executed the original version of this agreement. Please sign the digital copy and return it via email. If EcoHealth Alliance does not receive a signed digital copy within thirty (30) days of mailing, this agreement may be deemed revoked. This agreement shall be effective only upon the receipt of a signed version by EcoHealth Alliance.

I. TERM AND AMOUNT OF THE AGREEMENT

Subject to the continued availability of funding for this project, the term of this agreement shall be as per the period stated above, renewable for an additional term solely by written agreement between the University of North Carolina at Chapel Hill and EcoHealth Alliance.

The amount of the contract as indicated on the preceding page and detailed in **Attachment C: Project Budget** is to be disbursed according to the Disbursement of Funds section below and all other details as elaborated in the Financial Responsibilities section below. All deliverables and project details are elaborated in **Attachment B: Scope of Work**.

II. CONDITIONS OF THE AGREEMENT

The laws of the United States place certain restrictions on the use of funds awarded to organizations by charitable trusts and foundations. Therefore, the University of North Carolina at Chapel Hill agrees to the following terms and conditions:

1. **Internal Revenue Code:** Funds awarded by EcoHealth Alliance may not be used for any forbidden political activities or for any purposes prohibited by the United States Internal Revenue Service Code.
2. **Foreign Corrupt Practices Act of 1977: as amended:** The University of North Carolina at Chapel Hill agrees to be bound by this act that prohibits individuals and entities from making payments to foreign government officials for the purposes of obtaining business. This includes the offer, either directly or indirectly, of anything of value, to a foreign government official to influence that official in his or hers official capacity to do or omit any act in violation of their official capacity or lawful duty, or to secure any improper advantage in order to assist in obtaining or retaining business for or with, or directing business, to any person.

The University of North Carolina at Chapel Hill's directors, officers, employees and agents have not and will not offer, pay, promise or authorize the payment, directly or indirectly through any other person or entity, of any monies or anything of value to any governmental official or employee or any political party or candidate for political office, for the purpose of inducing or rewarding any favorable action or influencing any act or decision of such official or of the government.

Funds in this agreement may not be used to finance the travel, per diem, hotel expenses, meals, conference fees or other conference costs for any member of a foreign government's delegation to an international conference sponsored by a public international organization, except as otherwise agreed upon by EcoHealth Alliance and the University of North Carolina at Chapel Hill.

3. **Support for Acts of Terror:** The University of North Carolina at Chapel Hill certifies and represent that they will be bound by U.S. anti-terrorism legislation that prohibit having transactions with and providing material support or resources to individuals or groups that engage in or support acts of terror and that the University of North Carolina at Chapel Hill does not engage in or support, directly or indirectly, acts of terror.
4. **Financial Conflict of Interest:** The University of North Carolina at Chapel Hill certifies and represents that no Significant Financial Conflict of Interest exists regarding PI Ralph Baric participation in this project that would influence their research. They furthermore agree that if such a conflict develops during the course of this project they will promptly notify and disclose that conflict in writing to the EHA Principal Investigator and the EHA Chief financial Officer and may be required to develop a plan of corrective action to resolve that matter. This requirement shall extend to all named personnel related to this project.
5. **Federal Funding Accountability and Transparency Act:** The University of North Carolina at Chapel Hill agrees to fill out **Attachment A: FFATA** and provide EcoHealth Alliance with all information required by this law including, if required, executive compensation data for

publication on applicable US government websites. The University of North Carolina at Chapel Hill shall obtain a unique DUNS number from Dun & Bradstreet and shall provide it to EcoHealth Alliance.

6. **Non-Discrimination Policy:** The University of North Carolina at Chapel Hill will follow a comprehensive, consistent, and non-discriminatory policy to the extent it can accomplish this goal within the scope of the program objectives.

The University of North Carolina at Chapel Hill acknowledges that EcoHealth Alliance is implementing, and over the course of this agreement will continue to implement, reasonable monitoring and oversight to assure the continuing truth of these representations and certifications and that, on reasonable request, the University of North Carolina at Chapel Hill will provide documentation of the monitoring and oversight of these efforts.

Notwithstanding any term to the contrary, EcoHealth Alliance may terminate this contract with a thirty (30) business day written notice if it determines that the University of North Carolina at Chapel Hill fails to comply with the conditions stated in section II of this contract and the University of North Carolina at Chapel Hill has not cured such breach within the thirty (30) day period. In the event of termination, regardless of whether or not termination was due to breach of this contract, EcoHealth Alliance shall pay the University of North Carolina at Chapel Hill for all approved expenses and non-cancellable obligations made prior to the effective date of termination.

III. USE OF FUNDS

The contract monies, including any interest earned, may only be used for the purpose(s) stated in this agreement, as contained in the approved budget in **Attachment C: Project Budget** and detailed in **Attachment B: Scope of Work**.

Funds may not be expended for any other purpose without the prior written approval of EcoHealth Alliance. Should there be a material change in the purpose, character, or method of operation of the agreement, the University of North Carolina at Chapel Hill agrees to give prompt and detailed written notice to EcoHealth Alliance. The contract project shall be performed to EcoHealth Alliance's satisfaction as determined by EcoHealth Alliance.

Where appropriate, the University of North Carolina at Chapel Hill agrees to conform to accepted animal care and use practices as laid out in the latest IACUC, if applicable, approved by EcoHealth Alliance, and filed with the appropriate regulatory authorities. The University of North Carolina at Chapel Hill also agrees to follow all requirements regarding scientific conduct.

IV. NATURE OF RELATIONSHIP

The parties hereto intend by this agreement solely to specify the terms for the University of North Carolina at Chapel Hill's use of EcoHealth Alliance contract funds. Nothing in this agreement shall be construed as creating or constituting the relationship of employer and employee between EcoHealth Alliance and the University of North Carolina at Chapel Hill or the continuation of funding from EcoHealth Alliance. During the course of completing the contract project work, the University of North Carolina at Chapel Hill remains a distinct and separate legal entity from that of EcoHealth Alliance.

The University of North Carolina at Chapel Hill agrees to conform to the laws and regulations of the location in which they operate and obtain all required permits, agreements and insurance required by local authorities.

V. REPORTING REQUIREMENTS

The University of North Carolina at Chapel Hill agrees to fulfill the program scope of services and reporting requirements that are incorporated into this agreement and detailed in **Attachment B: Scope of Work**.

VI. PHOTOGRAPHS AND VIDEO

EcoHealth Alliance shall own and have the right to use the recorded media (photos, video, audio) notwithstanding any licenses or other rights granted to the University of North Carolina at Chapel Hill herein. The University of North Carolina at Chapel Hill shall retain the unrestricted right to use the recorded media (photos, video, audio) for publication and for educational and research purposes. EcoHealth Alliance grants to the University of North Carolina at Chapel Hill an irrevocable, royalty-free, non-transferable, non-exclusive right and license to use, reproduce, make derivative works, display, and perform publicly any material first developed and delivered under this contract.

VII. PUBLICATION REVIEW AND APPROVAL

At least thirty (30) days prior to the publication of any written work made possible by this EcoHealth Alliance contract agreement, or involving data or information gained in whole or in part from research or activity conducted under this agreement, a copy of such work must be sent to EcoHealth Alliance for pre-publication review and recommendations for revision by EcoHealth Alliance. The University of North Carolina at Chapel Hill is under no obligation to make any changes to the requested publication, except to delete Confidential Information within the EcoHealth Alliance review period. EcoHealth Alliance will respond within thirty (30) days of notification. All published work must recognize EcoHealth Alliance or as may be otherwise determined EcoHealth Alliance and required by the parent award from NIH/NIAID in the acknowledgements. Written work that is not approved by EcoHealth Alliance may not recognize EcoHealth Alliance in the acknowledgements.

The Parties may communicate to one another information of a proprietary nature that is directly related to the Scope of Work ("Confidential Information"). "Disclosing Party" means the Party providing Confidential Information to the other Party, and "Receiving Party" means the Party receiving Confidential Information. The Receiving Party shall neither use nor disclose Confidential Information except as permitted herein during the term of the agreement and for five (5) years thereafter. The Parties shall disclose only the portion of Confidential Information necessary to conduct the Study. Confidential Information shall be disclosed in writing and identified as such, or if disclosed orally, shall be reduced to writing within thirty (30) days thereafter. The definition of Confidential Information does not include information is (i) at the time of disclosure, is in the public domain, or later becomes part of the public domain; (ii) was received by the Receiving Party from a third Party; (iii) was independently developed by Receiving Party; (iv) is approved for release by the Disclosing Party; (v) was in Receiving Party's possession at the time of disclosure; or (vi) is required to be disclosed pursuant to law, regulation, or a court order.

VIII. EVALUATION OF THE AGREEMENT

At its own expense, EcoHealth Alliance may monitor and conduct an evaluation of operations under this contract agreement. Evaluation may include scheduled visits to the University of North Carolina at Chapel Hill by representatives of EcoHealth Alliance in order to observe and discuss the funded project.

IX. DISBURSEMENT OF FUNDS

Unless otherwise stated below, contract funds shall be disbursed by EcoHealth Alliance based on the following criteria:

1. The University of North Carolina at Chapel Hill shall submit a valid invoice to EcoHealth Alliance indicating the services performed, as well as the time period covered by the invoice. The University of North Carolina at Chapel Hill should attach a transaction report needed to substantiate any out-of-pocket expenses.
2. The University of North Carolina at Chapel Hill must sign the invoice as certification that the services rendered, and all expenses incurred have been pursuant to the scope of service contained in this agreement.
3. EcoHealth Alliance will invoice the funding source for the value of the invoice and remit the funds to the University of North Carolina at Chapel Hill in a timely manner.
4. EcoHealth Alliance reserves the right to delay payment of any funds due to insufficient documentation submitted by the University of North Carolina at Chapel Hill.
5. The University of North Carolina at Chapel Hill acknowledges that all invoices must be submitted to EcoHealth Alliance no more than 45-days after the end of the contract. Invoices submitted after these periods may not be invoiced to the funding source and may not be paid to the University of North Carolina at Chapel Hill.

Unless otherwise directed, EcoHealth Alliance shall remit US funds by bank wire made payable to the University of North Carolina at Chapel Hill. The legal name of the University of North Carolina at Chapel Hill, who must be the sole owner of the account, must appear on the account. The University of North Carolina at Chapel Hill shall provide the following banking information to EcoHealth Alliance:

Organization Name: University of North Carolina at Chapel Hill
Bank Name: (b) (6), (b) (4)
Bank Address: [Redacted]
Account Number: [Redacted]
ABA Code: [Redacted]
Bank Telephone: [Redacted]

When a transfer is initiated EcoHealth Alliance will include (b) (6), (b) (4) in the message and notify:

Dawn DiLello, Cash Manager
Office of Sponsored Research

Phone: (b) (6) Fax: 919-962-5011
Email: (b) (6)

X. SUBCONTRACTOR 'S FINANCIAL RESPONSIBILITIES

As applicable, the University of North Carolina at Chapel Hill agrees to adhere to all requirements contained in 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards during the term of the agreement. The University of North Carolina at Chapel Hill acknowledges responsibility for Federal Audit requirements for funds received under this agreement and will provide EcoHealth Alliance a copy of their most current single audit report as may be provided. The University of North Carolina at Chapel Hill agrees that all overhead charged to this grant shall not exceed the amount permitted by the federal indirect cost rate in effect during the performance period. The University of North Carolina at Chapel Hill shall provide EcoHealth Alliance with a copy of their most current federal indirect cost rate agreement. If requested, the University of North Carolina at Chapel Hill will provide EcoHealth Alliance with a copy of a most current audit report. The University of North Carolina at Chapel Hill agrees to keep systematic records of all expenditures relating to this agreement. A quarterly financial report is required along with a signed invoice for services and reimbursement of expenses. Documentation of expenses, consisting of bills, invoices, receipts, logbooks (acceptable only for gasoline for cars and boats), etc., must be retained by the University of North Carolina at Chapel Hill for three (3) years after the close of the agreement period and must be available for inspection by representatives of EcoHealth Alliance at any time during this period. EcoHealth Alliance may, at its own expense, examine, audit, or have audited the records of the University of North Carolina at Chapel Hill insofar as they relate to activities supported by this agreement. All audits, inspections, and examinations must be reasonably requested, scheduled at least seven (7) business days in advance to occur during normal business hours, and are conducted at the sole expense of EcoHealth Alliance.

The University of North Carolina at Chapel Hill budget records must be itemized in the following categories, as applicable:

1. Salary or stipend – detailed by person, rate as applicable, date, and amount
2. Purchased services (e.g., field asst., boat hire) – detailed at the level of numbers 1 & 2, above. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
3. Vehicle associated costs – mileage to be indicated along with any associated costs: driver, repairs, insurance, etc. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
4. Travel – trip cost indicating departure/arrival dates and air/car/train/boat costs along with all boarding passes and receipts.
5. Accommodation – location and amounts per person along with all lodging receipts.
6. Other – any other items that do not fall into the categories above with same level of detail.

The University of North Carolina at Chapel Hill shall submit detailed invoices to EcoHealth Alliance detailing actual expenditures compared to the approved budget or contract total. Invoices are subject to review and approval of EcoHealth Alliance's principal investigator and/or grants and programs manager who shall certify that all expenses are in conformity with the award.

EcoHealth Alliance reserves the right to request documentation of all costs incurred as part of its normal practices in the use of federal funds.

XI. PURCHASE OF CAPITAL EQUIPMENT

All capital equipment, items valued over US \$5,000 and with a useful life of three years or more, purchased with agreement money remains the property of The University of North Carolina.

XII. UNUSED FUNDS

The University of North Carolina at Chapel Hill agrees to return to EcoHealth Alliance at the conclusion of the agreement period all agreement funds that have not been used to complete the project. The University of North Carolina at Chapel Hill may not use agreement funds after the end of the agreement period without the written consent of EcoHealth Alliance unless both University of North Carolina at Chapel Hill and EcoHealth Alliance agree to an extension of this contract and both parties sign this in the form of an amendment.

XIII. REVOCATION AND REVERSION

With forty-five (45) days written notification either party may terminate the Agreement without cause and cancel all unpaid installments of the agreement. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

In addition, either party may terminate the Agreement for cause upon thirty (30) days written notice to the other party of an uncured breach, if the other party has breached the Agreement and has not cured such breach within the thirty (30) day period. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

XIV. INSURANCE AND LIABILITY

By accepting the terms and conditions of this agreement, the University of North Carolina at Chapel Hill also accepts full responsibility for any and all applicable insurance needs to the extent permitted by the North Carolina Tort Claims Act for themselves and all other University of North Carolina at Chapel Hill, project related personnel, unless a separate arrangement has been made between EcoHealth Alliance and the University of North Carolina at Chapel Hill. By signing this agreement, both the University of North Carolina at Chapel Hill and EcoHealth Alliance relieve the other party from any and all liability due to accident or injury, or any other claims that may result from any activities conducted by the University of North Carolina at Chapel Hill in relation to the contract project.

XV. ADDITIONAL SUPPORT

In making this contract agreement, EcoHealth Alliance assumes no obligation to provide other or additional support to the University of North Carolina at Chapel Hill.

XVI. NOTICE

All correspondence and project reports should include the reference log number and follow the reporting guidelines described above. Copies should be directed to:

Dr. Aleksei Chmura
EcoHealth Alliance
520 Eighth Avenue, Suite 1200
New York, NY 10018

(t) (b) (6)
(e) (b) (6)

XVII. INDEMNIFICATION

The University of North Carolina at Chapel Hill and EcoHealth Alliance hereby mutually agree to indemnify and hold each other, respectively, and each other's affiliates, officers, employees, successors and assigns, harmless from and against claims, demands, actions, proceedings, investigation and right of action whether action is instituted or not and, if instituted, whether at any trial or appellate level, whether raised by the other party or a third party, arising from the intentional and/or negligent acts, errors or omissions of the University of North Carolina at Chapel Hill or EcoHealth Alliance to the extent permitted by the North Carolina Tort Claims Act.

XVIII. PARTIAL INVALIDITY

If any term or provision of this agreement to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

XIX. Biosafety

Laboratory

- EcoHealth Alliance will review and evaluate the lab biosafety at project research sites, provide annual trainings, and conduct laboratory inspections as needed.
- All partner laboratories are required to submit applicable approval documents from their Institutional Biosafety Committees (IBC) to EcoHealth Alliance for review following signed contracts, to ensure the compliance with *NIH and CDC guidelines* (link below) or comparable. No laboratory work may be conducted without confirmed receipt by EcoHealth Alliance of these documents.
- Biosafety review and evaluation for all partner laboratories will be conducted following the *NIH and CDC Guidelines* (link below) or comparable.
- Any accident or concern related to work funded under this award must be reported to EcoHealth Alliance and your Institutional Biosafety Committee (IBC) within 72 hours and will be investigated by an independent auditor. Work will be suspended immediately until an investigation is completed to the satisfaction of EcoHealth Alliance.

NIH Guidelines: https://www.dropbox.com/s/sa0g11uyfrn139t/NIH_Guidelines%202019.pdf?dl=0

CDC Laboratory Biosafety Manual:

<https://www.dropbox.com/s/bp1g59x6bq18ehl/CDC%20Biosafety%20Guidelines.pdf?dl=0>

Field

- EcoHealth Alliance will have oversight of the field work biosafety, provide training, and enforcing biosafety regulations in the field for all work with animals.
- In-country Institutional Animal Care and use Committee (IACUC) and Institutional Review Board (IRB) approvals to work with wild animals and human subjects are required to submitted to EcoHealth Alliance following signed contracts. No fieldwork may be conducted without confirmed receipt by EcoHealth Alliance of these approvals.
- Review and approval will be conducted globally and locally with the IACUCs and IRBs.
- Field biosafety trainings will be conducted every other year or more frequently as necessary. Online refresher trainings will be made available every year for all members of teams working with wild animals, humans, and relevant specimens.

XX. OTHER PROVISIONS

This agreement may not be transferred or assigned by either party without the prior written consent of the other, and any breach of this prohibition will deem the agreement null and void.

Each party represents and warrants that its authorized agent(s) have duly executed this agreement on its behalf.

This agreement constitutes a single integrated contract expressing the entire agreement of the parties hereto. There are no other agreements, written or oral, express or implied, between the parties hereto, concerning the subject matter hereof, except the agreements set forth in this agreement. Any amendment to this agreement is effective only if set forth in writing and signed by both parties.

 (b) (6)

Dr. Peter Daszak
President
EcoHealth Alliance

 (b) (6)

for Terry Magnuson, PH.D.
Vice Chancellor for Research
The University of North Carolina at Chapel Hill

01/14/2021
DATE

01/13/2021
DATE

ATTACHMENT A: FFATA

The Federal Funding Accountability and Transparency Act (FFATA) was signed on September 26, 2006 and requires information on federal awards (federal financial assistance and expenditures) be made available to the public via a single, searchable website, which is www.USASpending.gov. All contractors receiving funds from EcoHealth Alliance are required to provide the following information as a condition of receiving funds.

Please answer the following questions Yes or No.

- a. In the previous tax year, was your company's gross income from all sources above \$300,000?

Yes No

- b. In the University of North Carolina at Chapel Hill's business or organization's preceding completed fiscal year, did its business or organization (the legal entity to which the DUNS number it provided belongs) receive (1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; **and** (2) \$25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

Yes No

- c. Does the public have access to information about the compensation of the executives in the University of North Carolina at Chapel Hill's business or organization (the legal entity to which the DUNS number it provided belongs) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Yes No

- d. Does your business or organization maintain an active registration in the System for Award Management (www.SAM.gov)?

Yes No

ATTACHMENT B: Scope of Work

Under the supervisor of Dr. Ralph Baric, Co-Investigator, coordinated by Dr. Timothy Sheahan, Research Scientist and Lab Coordinator, working close with a lab technician (TBN) the laboratory work will be implemented at the University of North Carolina at Chapel Hill to conduct systematic studies on the epidemiology, genetic evolution, interspecies infection mechanism and pathogenesis of a series of bat-borne CoVs, including:

- ***In vitro* Infection Experiment.** In vitro infection experiments using pseudoviruses carrying the spike proteins (wild type or mutants) or live viruses in cell lines of different origins, binding affinity assays between the spike proteins (wild type or mutants) and different cellular receptor molecules, and humanized mouse experiments.
- **Developing Luciferase Immunoprecipitation System (LIPS) Assay.** Develop LIPS assay for bat CoV antibody detection.
- **The Enzyme-Linked Immunosorbent Assay (ELISA) Testing.** Serological testing of bat serum samples with ELISA plates.
- **Meetings and travels.** Dr. Baric and lab team members will meet with other Co-PIs from EcoHealth Alliance and partners to refine study protocols, report results, and prepare publications

Coronaviruses (e.g. SARS-CoV, MERS-CoV), henipaviruses (HeV, NiV) and filoviruses (EBOV, MARV) are highly pathogenic viruses which emerged from zoonotic reservoirs to cause significant human morbidity and mortality. Like most emerging zoonoses, these pathogens originate in wildlife reservoirs, sometimes spilling over first into livestock ‘amplifier’ hosts, or directly into localized human populations with high levels of animal contact. Efforts to prevent emerging zoonoses have targeted these high-risk populations in regions prone to disease emergence, coupled with rapid surveillance systems designed to rapidly identify newly emerged virus pathogens in human outbreak settings. However, surveillance and control is hampered by inadequate information on the basic disease ecology, the availability of human cohorts at the interface between wildlife and human habitats, and cohorts of individuals in high-risk sites for secondary disease amplification and spread to sites around the world.

Dr. Baric will lead the studies at the University of North Carolina at Chapel Hill. He will design research strategies, interpret findings and review research outcomes with another investigator and Mr. Yount. At a regular basis, Dr. Baric will report the results of the team’s research to Dr. Daszak, and together, they will use this information to identify additional research priorities and design downstream studies. Drs. Daszak and Baric have published together in the past and participated on research project applications. He will work closely with another investigator and Tse and Mr. Yount to prepare timely reports, share research and discuss future research directions with the group.

ATTACHMENT C: PROJECT BUDGET

| YEAR 1 | | |
|--------------------------|-----------------|---------------------------------|
| SALARY | | 17 JUN 2020 - 31 MAY 2021 |
| Ralph Baric | Co-Investigator | (b) (6), (b) (4) |
| TBD | Co-Investigator | |
| Boyd Yount | Research Asst. | |
| Long Ping Victor Tse | Lab Tech | |
| TOTAL SALARY | | \$ 70,189.00 |
| FRINGE | 30.95% | \$ 21,726.00 |
| TOTAL SALARY + FRINGE | | \$ 91,915.00 |
| TRAVEL | | |
| Domestic | | \$ 1,000.00 |
| International | | \$ - |
| TOTAL TRAVEL | | \$ 1,000.00 |
| OTHER DIRECT COSTS | | |
| Materials & Supplies | | \$ 30,585.00 |
| Publication Costs | | \$ 500.00 |
| Animal Housing | | \$ 1,000.00 |
| TOTAL OTHER DIRECT COSTS | | \$ 32,085.00 |
| TOTAL DIRECT | | \$ 125,000.00 |
| INDIRECT | 55.50% | \$ 69,375.00 |
| TOTAL | | \$ 194,375.00 |

PAYMENT REQUEST FORM

| | | | | | |
|----------------------|---|------------------------------------|------------------------------|----------------------------------|-----------------------------|
| Prepared By: | Su Yadana | W-9 Form: | <input type="checkbox"/> YES | <input type="checkbox"/> ON FILE | <input type="checkbox"/> NO |
| Effective date: | 6/9/21 | FINANCE DEPARTMENT USE ONLY | | | |
| VENDOR/PAYEE: | The University of North Carolina at Chapel Hill | Vendor ID: | | | |
| Invoice#: | 03 | API#: | | | |
| PURPOSE/DESCRIPTION: | EID-SEARCH NIH/NIAID FUNDED WORK for UNC. INVOICE #03 | Initials: | | | |
| | | Dept: | 07 | | |
| | | Project: | 126 | | |
| | | Funding Source: | 7012 | | |
| | | Expense Code: | 52338 | | |

| | | |
|-----------------|--|--------------------------------|
| PAYMENT METHOD: | <input checked="" type="checkbox"/> WIRE | <input type="checkbox"/> CHECK |
|-----------------|--|--------------------------------|

SPECIAL INSTRUCTIONS:

| | | | |
|---|------------------|---------------------------|----------------------------|
| WIRE TRANSFER INFORMATION | | Contract Amount: | \$ 194,375.00 |
| Swift Code (Int'l): | | Contract start/end dates: | 17 June 2020 - 31 May 2021 |
| IBAN: | | payment request #1: | \$ 47,524.06 |
| Account Name: | (b) (6), (b) (4) | payment request #2: | \$ 43,135.13 |
| Account Number: | (b) (6), (b) (4) | payment request #3: | \$ 35,423.92 |
| Bank Name/Address: | (b) (6), (b) (4) | payment request #4: | \$ - |
| | | payment request #5: | \$ - |
| ABA or Routing Number: | (b) (6), (b) (4) | payment request #6: | \$ - |
| Intermediary Bank Information (if applicable): | | payment request #7: | \$ - |
| | | payment request #8: | \$ - |
| | | payment request #9: | \$ - |
| CHECK INFORMATION: Recipient Mailing Address | | payment request #10: | \$ - |
| Office of Sponsored Research The University of North Carolina at Chapel Hill [Redacted] | (b) (6), (b) (4) | payment request #11: | \$ - |
| | | payment request #12: | \$ - |
| | | Contract Balance: | \$ 68,291.89 |

I certify that these costs were incurred on behalf of EcoHealth Alliance and authorize payment.



Peter Daszak

P.I./DESIGNEE PRINTED NAME
[Redacted] (b) (6)

P.I./DESIGNEE SIGNATURE

6/9/21

DATE

INVOICE

The University of North Carolina at Chapel Hill



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Remit Payment To:

Office of Sponsored Research
The University of North Carolina at Chapel Hill
C/O [REDACTED] (b) (6), (b) (4)

Federal Tax ID # 56-6001393
Duns # 608195277

Invoice #: GM00173003

| | | | |
|------------------|---|---|----------------------------------|
| Name of Sponsor: | EcoHealth Alliance 520 Eighth Avenue, Suite 1200 New York NY 10018 United States | <input checked="" type="radio"/> Interim Billing <input type="radio"/> Final Billing | Award Amount \$194,375.00 |
| | Sponsor Ref No.: 19-5722 UNC Award No.: A20-1625-001 Award Title: Understanding Risk of Zoonotic Virus Emergence in EID Ho Project ID: 5119959 | Budget Period: From: 06/17/2020 To: 05/31/2021 | |

email invoices to: [REDACTED] (b) (6) and [REDACTED] (b) (6)

| DESCRIPTION OF SERVICES | EXPENDITURES | |
|-------------------------|------------------------------------|--------------------------|
| | Current 05/01/2021 - 05/31/2021 | Cumulative 05/31/2021 |
| Salaries | \$4,381.08 | \$14,891.64 |
| Fringe Benefits | \$1,393.43 | \$4,188.07 |
| Supplies | \$16,907.23 | \$61,903.74 |
| Communications | \$98.94 | \$98.94 |
| Total Direct | \$22,780.68 | \$81,082.39 |
| Indirect Cost | \$12,643.24 | \$45,000.72 |
| TOTAL | \$35,423.92 | \$126,083.11 |

Payment due upon receipt of invoice

PLEASE RETURN A COPY OF THIS INVOICE WITH YOUR PAYMENT

By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812).

| | | |
|------------------------------|--------------------|------------|
| Typed Name of Fiscal Officer | Signature | Date |
| Colleen A Williams | [REDACTED] (b) (6) | 06/08/2021 |

For questions regarding invoice, please contact Brian Gerwig
Phone: 919/966-3411 FAX: 919/962-5011
OSRBILLING@unc.edu

| |
|--|
| ACH Payments |
| Account Name: [REDACTED] (b) (6), (b) (4) |
| Financial Institution: [REDACTED] (b) (6), (b) (4) |
| ABA or Routing Number: [REDACTED] (b) (6), (b) (4) |
| Account Number: [REDACTED] (b) (6), (b) (4) |



CONTRACT AGREEMENT

NAME: The University of North Carolina at Chapel Hill

ADDRESS: 104 Airport Dr Suite 2200
Campus Box 1350
Chapel Hill, NC 27599-1350

PROJECT TITLE: Understanding Risk of Zoonotic Virus Emergence in EID Hotspots of Southeast Asia

PERIOD: 17 June 2020 – 31 May 2021

PHONE: (b) (6)

EMAIL: (b) (6)

FUNDING SOURCE: NIH/NIAID/CREID/07-049-7012-52338

DUNS NUMBER: 608195277

AGREEMENT AMOUNT: \$194,375.00

This Agreement is by and between EcoHealth Alliance, a United States tax-exempt organization, located at 520 Eighth Avenue, Suite 1200, New York, New York, 10018, and the University of North Carolina at Chapel Hill.

An authorized representative of EcoHealth Alliance has executed the original version of this agreement. Please sign the digital copy and return it via email. If EcoHealth Alliance does not receive a signed digital copy within thirty (30) days of mailing, this agreement may be deemed revoked. This agreement shall be effective only upon the receipt of a signed version by EcoHealth Alliance.

I. TERM AND AMOUNT OF THE AGREEMENT

Subject to the continued availability of funding for this project, the term of this agreement shall be as per the period stated above, renewable for an additional term solely by written agreement between the University of North Carolina at Chapel Hill and EcoHealth Alliance.

The amount of the contract as indicated on the preceding page and detailed in **Attachment C: Project Budget** is to be disbursed according to the Disbursement of Funds section below and all other details as elaborated in the Financial Responsibilities section below. All deliverables and project details are elaborated in **Attachment B: Scope of Work**.

II. CONDITIONS OF THE AGREEMENT

The laws of the United States place certain restrictions on the use of funds awarded to organizations by charitable trusts and foundations. Therefore, the University of North Carolina at Chapel Hill agrees to the following terms and conditions:

1. **Internal Revenue Code:** Funds awarded by EcoHealth Alliance may not be used for any forbidden political activities or for any purposes prohibited by the United States Internal Revenue Service Code.
2. **Foreign Corrupt Practices Act of 1977: as amended:** The University of North Carolina at Chapel Hill agrees to be bound by this act that prohibits individuals and entities from making payments to foreign government officials for the purposes of obtaining business. This includes the offer, either directly or indirectly, of anything of value, to a foreign government official to influence that official in his or hers official capacity to do or omit any act in violation of their official capacity or lawful duty, or to secure any improper advantage in order to assist in obtaining or retaining business for or with, or directing business, to any person.

The University of North Carolina at Chapel Hill's directors, officers, employees and agents have not and will not offer, pay, promise or authorize the payment, directly or indirectly through any other person or entity, of any monies or anything of value to any governmental official or employee or any political party or candidate for political office, for the purpose of inducing or rewarding any favorable action or influencing any act or decision of such official or of the government.

Funds in this agreement may not be used to finance the travel, per diem, hotel expenses, meals, conference fees or other conference costs for any member of a foreign government's delegation to an international conference sponsored by a public international organization, except as otherwise agreed upon by EcoHealth Alliance and the University of North Carolina at Chapel Hill.

3. **Support for Acts of Terror:** The University of North Carolina at Chapel Hill certifies and represent that they will be bound by U.S. anti-terrorism legislation that prohibit having transactions with and providing material support or resources to individuals or groups that engage in or support acts of terror and that the University of North Carolina at Chapel Hill does not engage in or support, directly or indirectly, acts of terror.
4. **Financial Conflict of Interest:** The University of North Carolina at Chapel Hill certifies and represents that no Significant Financial Conflict of Interest exists regarding PI Ralph Baric participation in this project that would influence their research. They furthermore agree that if such a conflict develops during the course of this project they will promptly notify and disclose that conflict in writing to the EHA Principal Investigator and the EHA Chief financial Officer and may be required to develop a plan of corrective action to resolve that matter. This requirement shall extend to all named personnel related to this project.
5. **Federal Funding Accountability and Transparency Act:** The University of North Carolina at Chapel Hill agrees to fill out **Attachment A: FFATA** and provide EcoHealth Alliance with all information required by this law including, if required, executive compensation data for

publication on applicable US government websites. The University of North Carolina at Chapel Hill shall obtain a unique DUNS number from Dun & Bradstreet and shall provide it to EcoHealth Alliance.

6. **Non-Discrimination Policy:** The University of North Carolina at Chapel Hill will follow a comprehensive, consistent, and non-discriminatory policy to the extent it can accomplish this goal within the scope of the program objectives.

The University of North Carolina at Chapel Hill acknowledges that EcoHealth Alliance is implementing, and over the course of this agreement will continue to implement, reasonable monitoring and oversight to assure the continuing truth of these representations and certifications and that, on reasonable request, the University of North Carolina at Chapel Hill will provide documentation of the monitoring and oversight of these efforts.

Notwithstanding any term to the contrary, EcoHealth Alliance may terminate this contract with a thirty (30) business day written notice if it determines that the University of North Carolina at Chapel Hill fails to comply with the conditions stated in section II of this contract and the University of North Carolina at Chapel Hill has not cured such breach within the thirty (30) day period. In the event of termination, regardless of whether or not termination was due to breach of this contract, EcoHealth Alliance shall pay the University of North Carolina at Chapel Hill for all approved expenses and non-cancellable obligations made prior to the effective date of termination.

III. USE OF FUNDS

The contract monies, including any interest earned, may only be used for the purpose(s) stated in this agreement, as contained in the approved budget in **Attachment C: Project Budget** and detailed in **Attachment B: Scope of Work**.

Funds may not be expended for any other purpose without the prior written approval of EcoHealth Alliance. Should there be a material change in the purpose, character, or method of operation of the agreement, the University of North Carolina at Chapel Hill agrees to give prompt and detailed written notice to EcoHealth Alliance. The contract project shall be performed to EcoHealth Alliance's satisfaction as determined by EcoHealth Alliance.

Where appropriate, the University of North Carolina at Chapel Hill agrees to conform to accepted animal care and use practices as laid out in the latest IACUC, if applicable, approved by EcoHealth Alliance, and filed with the appropriate regulatory authorities. The University of North Carolina at Chapel Hill also agrees to follow all requirements regarding scientific conduct.

IV. NATURE OF RELATIONSHIP

The parties hereto intend by this agreement solely to specify the terms for the University of North Carolina at Chapel Hill's use of EcoHealth Alliance contract funds. Nothing in this agreement shall be construed as creating or constituting the relationship of employer and employee between EcoHealth Alliance and the University of North Carolina at Chapel Hill or the continuation of funding from EcoHealth Alliance. During the course of completing the contract project work, the University of North Carolina at Chapel Hill remains a distinct and separate legal entity from that of EcoHealth Alliance.

The University of North Carolina at Chapel Hill agrees to conform to the laws and regulations of the location in which they operate and obtain all required permits, agreements and insurance required by local authorities.

V. REPORTING REQUIREMENTS

The University of North Carolina at Chapel Hill agrees to fulfill the program scope of services and reporting requirements that are incorporated into this agreement and detailed in **Attachment B: Scope of Work**.

VI. PHOTOGRAPHS AND VIDEO

EcoHealth Alliance shall own and have the right to use the recorded media (photos, video, audio) notwithstanding any licenses or other rights granted to the University of North Carolina at Chapel Hill herein. The University of North Carolina at Chapel Hill shall retain the unrestricted right to use the recorded media (photos, video, audio) for publication and for educational and research purposes. EcoHealth Alliance grants to the University of North Carolina at Chapel Hill an irrevocable, royalty-free, non-transferable, non-exclusive right and license to use, reproduce, make derivative works, display, and perform publicly any material first developed and delivered under this contract.

VII. PUBLICATION REVIEW AND APPROVAL

At least thirty (30) days prior to the publication of any written work made possible by this EcoHealth Alliance contract agreement, or involving data or information gained in whole or in part from research or activity conducted under this agreement, a copy of such work must be sent to EcoHealth Alliance for pre-publication review and recommendations for revision by EcoHealth Alliance. The University of North Carolina at Chapel Hill is under no obligation to make any changes to the requested publication, except to delete Confidential Information within the EcoHealth Alliance review period. EcoHealth Alliance will respond within thirty (30) days of notification. All published work must recognize EcoHealth Alliance or as may be otherwise determined EcoHealth Alliance and required by the parent award from NIH/NIAID in the acknowledgements. Written work that is not approved by EcoHealth Alliance may not recognize EcoHealth Alliance in the acknowledgements.

The Parties may communicate to one another information of a proprietary nature that is directly related to the Scope of Work ("Confidential Information"). "Disclosing Party" means the Party providing Confidential Information to the other Party, and "Receiving Party" means the Party receiving Confidential Information. The Receiving Party shall neither use nor disclose Confidential Information except as permitted herein during the term of the agreement and for five (5) years thereafter. The Parties shall disclose only the portion of Confidential Information necessary to conduct the Study. Confidential Information shall be disclosed in writing and identified as such, or if disclosed orally, shall be reduced to writing within thirty (30) days thereafter. The definition of Confidential Information does not include information is (i) at the time of disclosure, is in the public domain, or later becomes part of the public domain; (ii) was received by the Receiving Party from a third Party; (iii) was independently developed by Receiving Party; (iv) is approved for release by the Disclosing Party; (v) was in Receiving Party's possession at the time of disclosure; or (vi) is required to be disclosed pursuant to law, regulation, or a court order.

VIII. EVALUATION OF THE AGREEMENT

At its own expense, EcoHealth Alliance may monitor and conduct an evaluation of operations under this contract agreement. Evaluation may include scheduled visits to the University of North Carolina at Chapel Hill by representatives of EcoHealth Alliance in order to observe and discuss the funded project.

IX. DISBURSEMENT OF FUNDS

Unless otherwise stated below, contract funds shall be disbursed by EcoHealth Alliance based on the following criteria:

1. The University of North Carolina at Chapel Hill shall submit a valid invoice to EcoHealth Alliance indicating the services performed, as well as the time period covered by the invoice. The University of North Carolina at Chapel Hill should attach a transaction report needed to substantiate any out-of-pocket expenses.
2. The University of North Carolina at Chapel Hill must sign the invoice as certification that the services rendered, and all expenses incurred have been pursuant to the scope of service contained in this agreement.
3. EcoHealth Alliance will invoice the funding source for the value of the invoice and remit the funds to the University of North Carolina at Chapel Hill in a timely manner.
4. EcoHealth Alliance reserves the right to delay payment of any funds due to insufficient documentation submitted by the University of North Carolina at Chapel Hill.
5. The University of North Carolina at Chapel Hill acknowledges that all invoices must be submitted to EcoHealth Alliance no more than 45-days after the end of the contract. Invoices submitted after these periods may not be invoiced to the funding source and may not be paid to the University of North Carolina at Chapel Hill.

Unless otherwise directed, EcoHealth Alliance shall remit US funds by bank wire made payable to the University of North Carolina at Chapel Hill. The legal name of the University of North Carolina at Chapel Hill, who must be the sole owner of the account, must appear on the account. The University of North Carolina at Chapel Hill shall provide the following banking information to EcoHealth Alliance:

Organization Name: University of North Carolina at Chapel Hill
Bank Name: (b) (6), (b) (4)
Bank Address:
Account Number:
ABA Code:
Bank Telephone:

When a transfer is initiated EcoHealth Alliance will include (b) (6), (b) (4) in the message and notify:

Dawn DiLello, Cash Manager
Office of Sponsored Research

Phone: (b) (6) Fax: 919-962-5011
Email: (b) (6)

X. SUBCONTRACTOR 'S FINANCIAL RESPONSIBILITIES

As applicable, the University of North Carolina at Chapel Hill agrees to adhere to all requirements contained in 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards during the term of the agreement. The University of North Carolina at Chapel Hill acknowledges responsibility for Federal Audit requirements for funds received under this agreement and will provide EcoHealth Alliance a copy of their most current single audit report as may be provided. The University of North Carolina at Chapel Hill agrees that all overhead charged to this grant shall not exceed the amount permitted by the federal indirect cost rate in effect during the performance period. The University of North Carolina at Chapel Hill shall provide EcoHealth Alliance with a copy of their most current federal indirect cost rate agreement. If requested, the University of North Carolina at Chapel Hill will provide EcoHealth Alliance with a copy of a most current audit report. The University of North Carolina at Chapel Hill agrees to keep systematic records of all expenditures relating to this agreement. A quarterly financial report is required along with a signed invoice for services and reimbursement of expenses. Documentation of expenses, consisting of bills, invoices, receipts, logbooks (acceptable only for gasoline for cars and boats), etc., must be retained by the University of North Carolina at Chapel Hill for three (3) years after the close of the agreement period and must be available for inspection by representatives of EcoHealth Alliance at any time during this period. EcoHealth Alliance may, at its own expense, examine, audit, or have audited the records of the University of North Carolina at Chapel Hill insofar as they relate to activities supported by this agreement. All audits, inspections, and examinations must be reasonably requested, scheduled at least seven (7) business days in advance to occur during normal business hours, and are conducted at the sole expense of EcoHealth Alliance.

The University of North Carolina at Chapel Hill budget records must be itemized in the following categories, as applicable:

1. Salary or stipend – detailed by person, rate as applicable, date, and amount
2. Purchased services (e.g., field asst., boat hire) – detailed at the level of numbers 1 & 2, above. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
3. Vehicle associated costs – mileage to be indicated along with any associated costs: driver, repairs, insurance, etc. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
4. Travel – trip cost indicating departure/arrival dates and air/car/train/boat costs along with all boarding passes and receipts.
5. Accommodation – location and amounts per person along with all lodging receipts.
6. Other – any other items that do not fall into the categories above with same level of detail.

The University of North Carolina at Chapel Hill shall submit detailed invoices to EcoHealth Alliance detailing actual expenditures compared to the approved budget or contract total. Invoices are subject to review and approval of EcoHealth Alliance's principal investigator and/or grants and programs manager who shall certify that all expenses are in conformity with the award.

EcoHealth Alliance reserves the right to request documentation of all costs incurred as part of its normal practices in the use of federal funds.

XI. PURCHASE OF CAPITAL EQUIPMENT

All capital equipment, items valued over US \$5,000 and with a useful life of three years or more, purchased with agreement money remains the property of The University of North Carolina.

XII. UNUSED FUNDS

The University of North Carolina at Chapel Hill agrees to return to EcoHealth Alliance at the conclusion of the agreement period all agreement funds that have not been used to complete the project. The University of North Carolina at Chapel Hill may not use agreement funds after the end of the agreement period without the written consent of EcoHealth Alliance unless both University of North Carolina at Chapel Hill and EcoHealth Alliance agree to an extension of this contract and both parties sign this in the form of an amendment.

XIII. REVOCATION AND REVERSION

With forty-five (45) days written notification either party may terminate the Agreement without cause and cancel all unpaid installments of the agreement. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

In addition, either party may terminate the Agreement for cause upon thirty (30) days written notice to the other party of an uncured breach, if the other party has breached the Agreement and has not cured such breach within the thirty (30) day period. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

XIV. INSURANCE AND LIABILITY

By accepting the terms and conditions of this agreement, the University of North Carolina at Chapel Hill also accepts full responsibility for any and all applicable insurance needs to the extent permitted by the North Carolina Tort Claims Act for themselves and all other University of North Carolina at Chapel Hill, project related personnel, unless a separate arrangement has been made between EcoHealth Alliance and the University of North Carolina at Chapel Hill. By signing this agreement, both the University of North Carolina at Chapel Hill and EcoHealth Alliance relieve the other party from any and all liability due to accident or injury, or any other claims that may result from any activities conducted by the University of North Carolina at Chapel Hill in relation to the contract project.

XV. ADDITIONAL SUPPORT

In making this contract agreement, EcoHealth Alliance assumes no obligation to provide other or additional support to the University of North Carolina at Chapel Hill.

XVI. NOTICE

All correspondence and project reports should include the reference log number and follow the reporting guidelines described above. Copies should be directed to:

Dr. Aleksei Chmura
EcoHealth Alliance
520 Eighth Avenue, Suite 1200
New York, NY 10018

(t) (b) (6)
(e) (b) (6)

XVII. INDEMNIFICATION

The University of North Carolina at Chapel Hill and EcoHealth Alliance hereby mutually agree to indemnify and hold each other, respectively, and each other's affiliates, officers, employees, successors and assigns, harmless from and against claims, demands, actions, proceedings, investigation and right of action whether action is instituted or not and, if instituted, whether at any trial or appellate level, whether raised by the other party or a third party, arising from the intentional and/or negligent acts, errors or omissions of the University of North Carolina at Chapel Hill or EcoHealth Alliance to the extent permitted by the North Carolina Tort Claims Act.

XVIII. PARTIAL INVALIDITY

If any term or provision of this agreement to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

XIX. Biosafety

Laboratory

- EcoHealth Alliance will review and evaluate the lab biosafety at project research sites, provide annual trainings, and conduct laboratory inspections as needed.
- All partner laboratories are required to submit applicable approval documents from their Institutional Biosafety Committees (IBC) to EcoHealth Alliance for review following signed contracts, to ensure the compliance with *NIH and CDC guidelines* (link below) or comparable. No laboratory work may be conducted without confirmed receipt by EcoHealth Alliance of these documents.
- Biosafety review and evaluation for all partner laboratories will be conducted following the *NIH and CDC Guidelines* (link below) or comparable.
- Any accident or concern related to work funded under this award must be reported to EcoHealth Alliance and your Institutional Biosafety Committee (IBC) within 72 hours and will be investigated by an independent auditor. Work will be suspended immediately until an investigation is completed to the satisfaction of EcoHealth Alliance.

NIH Guidelines: https://www.dropbox.com/s/sa0g11uyfrn139t/NIH_Guidelines%202019.pdf?dl=0

CDC Laboratory Biosafety Manual:

<https://www.dropbox.com/s/bp1g59x6bq18ehl/CDC%20Biosafety%20Guidelines.pdf?dl=0>

Field

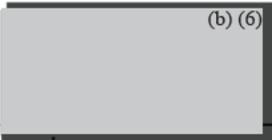
- EcoHealth Alliance will have oversight of the field work biosafety, provide training, and enforcing biosafety regulations in the field for all work with animals.
- In-country Institutional Animal Care and use Committee (IACUC) and Institutional Review Board (IRB) approvals to work with wild animals and human subjects are required to submitted to EcoHealth Alliance following signed contracts. No fieldwork may be conducted without confirmed receipt by EcoHealth Alliance of these approvals.
- Review and approval will be conducted globally and locally with the IACUCs and IRBs.
- Field biosafety trainings will be conducted every other year or more frequently as necessary. Online refresher trainings will be made available every year for all members of teams working with wild animals, humans, and relevant specimens.

XX. OTHER PROVISIONS

This agreement may not be transferred or assigned by either party without the prior written consent of the other, and any breach of this prohibition will deem the agreement null and void.

Each party represents and warrants that its authorized agent(s) have duly executed this agreement on its behalf.

This agreement constitutes a single integrated contract expressing the entire agreement of the parties hereto. There are no other agreements, written or oral, express or implied, between the parties hereto, concerning the subject matter hereof, except the agreements set forth in this agreement. Any amendment to this agreement is effective only if set forth in writing and signed by both parties.

 (b) (6)

Dr. Peter Daszak
President
EcoHealth Alliance

01/14/2021
DATE

 (b) (6)

for Terry Magnuson, PH.D.
Vice Chancellor for Research
The University of North Carolina at Chapel Hill

01/13/2021
DATE

ATTACHMENT A: FFATA

The Federal Funding Accountability and Transparency Act (FFATA) was signed on September 26, 2006 and requires information on federal awards (federal financial assistance and expenditures) be made available to the public via a single, searchable website, which is www.USASpending.gov. All contractors receiving funds from EcoHealth Alliance are required to provide the following information as a condition of receiving funds.

Please answer the following questions Yes or No.

- a. In the previous tax year, was your company's gross income from all sources above \$300,000?

Yes No

- b. In the University of North Carolina at Chapel Hill's business or organization's preceding completed fiscal year, did its business or organization (the legal entity to which the DUNS number it provided belongs) receive (1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; **and** (2) \$25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

Yes No

- c. Does the public have access to information about the compensation of the executives in the University of North Carolina at Chapel Hill's business or organization (the legal entity to which the DUNS number it provided belongs) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Yes No

- d. Does your business or organization maintain an active registration in the System for Award Management (www.SAM.gov)?

Yes No

ATTACHMENT B: Scope of Work

Under the supervisor of Dr. Ralph Baric, Co-Investigator, coordinated by Dr. Timothy Sheahan, Research Scientist and Lab Coordinator, working close with a lab technician (TBN) the laboratory work will be implemented at the University of North Carolina at Chapel Hill to conduct systematic studies on the epidemiology, genetic evolution, interspecies infection mechanism and pathogenesis of a series of bat-borne CoVs, including:

- ***In vitro* Infection Experiment.** In vitro infection experiments using pseudoviruses carrying the spike proteins (wild type or mutants) or live viruses in cell lines of different origins, binding affinity assays between the spike proteins (wild type or mutants) and different cellular receptor molecules, and humanized mouse experiments.
- **Developing Luciferase Immunoprecipitation System (LIPS) Assay.** Develop LIPS assay for bat CoV antibody detection.
- **The Enzyme-Linked Immunosorbent Assay (ELISA) Testing.** Serological testing of bat serum samples with ELISA plates.
- **Meetings and travels.** Dr. Baric and lab team members will meet with other Co-PIs from EcoHealth Alliance and partners to refine study protocols, report results, and prepare publications

Coronaviruses (e.g. SARS-CoV, MERS-CoV), henipaviruses (HeV, NiV) and filoviruses (EBOV, MARV) are highly pathogenic viruses which emerged from zoonotic reservoirs to cause significant human morbidity and mortality. Like most emerging zoonoses, these pathogens originate in wildlife reservoirs, sometimes spilling over first into livestock 'amplifier' hosts, or directly into localized human populations with high levels of animal contact. Efforts to prevent emerging zoonoses have targeted these high-risk populations in regions prone to disease emergence, coupled with rapid surveillance systems designed to rapidly identify newly emerged virus pathogens in human outbreak settings. However, surveillance and control is hampered by inadequate information on the basic disease ecology, the availability of human cohorts at the interface between wildlife and human habitats, and cohorts of individuals in high-risk sites for secondary disease amplification and spread to sites around the world.

Dr. Baric will lead the studies at the University of North Carolina at Chapel Hill. He will design research strategies, interpret findings and review research outcomes with another investigator and Mr. Yount. At a regular basis, Dr. Baric will report the results of the team's research to Dr. Daszak, and together, they will use this information to identify additional research priorities and design downstream studies. Drs. Daszak and Baric have published together in the past and participated on research project applications. He will work closely with another investigator and Tse and Mr. Yount to prepare timely reports, share research and discuss future research directions with the group.

ATTACHMENT C: PROJECT BUDGET

| YEAR 1 | | |
|--------------------------|-----------------|---------------------------------|
| SALARY | | 17 JUN 2020 - 31 MAY 2021 |
| Ralph Baric | Co-Investigator | (b) (6), (b) (4) |
| TBD | Co-Investigator | |
| Boyd Yount | Research Asst. | |
| Long Ping Victor Tse | Lab Tech | |
| TOTAL SALARY | | \$ 70,189.00 |
| FRINGE | 30.95% | \$ 21,726.00 |
| TOTAL SALARY + FRINGE | | \$ 91,915.00 |
| TRAVEL | | |
| Domestic | | \$ 1,000.00 |
| International | | \$ - |
| TOTAL TRAVEL | | \$ 1,000.00 |
| OTHER DIRECT COSTS | | |
| Materials & Supplies | | \$ 30,585.00 |
| Publication Costs | | \$ 500.00 |
| Animal Housing | | \$ 1,000.00 |
| TOTAL OTHER DIRECT COSTS | | \$ 32,085.00 |
| TOTAL DIRECT | | \$ 125,000.00 |
| INDIRECT | 55.50% | \$ 69,375.00 |
| TOTAL | | \$ 194,375.00 |

PAYMENT REQUEST FORM

| | | | | | |
|----------------------|---|------------------------------------|------------------------------|----------------------------------|-----------------------------|
| Prepared By: | Su Yadana | W-9 Form: | <input type="checkbox"/> YES | <input type="checkbox"/> ON FILE | <input type="checkbox"/> NO |
| Effective date: | 06/30/21 | FINANCE DEPARTMENT USE ONLY | | | |
| VENDOR/PAYEE: | The University of North Carolina at Chapel Hill | Vendor ID: | | | |
| Invoice#: | 04 | API#: | | | |
| PURPOSE/DESCRIPTION: | EID-SEARCH NIH/NIAID FUNDED WORK for UNC. INVOICE #04 | Initials: | | | |
| | | Dept: | 07 | | |
| | | Project: | 126 | | |
| | | Funding Source: | 7012 | | |
| | | Expense Code: | 52338 | | |

PAYMENT METHOD: WIRE CHECK

SPECIAL INSTRUCTIONS:

| | | | |
|---|------------------|----------------------------|----------------------------|
| WIRE TRANSFER INFORMATION | | Contract Amount: | \$ 194,375.00 |
| Swift Code (Int'l): | | Contract start/end dates: | 17 June 2020 - 31 May 2021 |
| IBAN: | | payment request #1: | \$ 47,524.06 |
| Account Name: | (b) (6), (b) (4) | payment request #2: | \$ 43,135.13 |
| Account Number: | (b) (6), (b) (4) | payment request #3: | \$ 35,423.92 |
| Bank Name/Address: | (b) (6), (b) (4) | payment request #4: | \$ 24,743.66 |
| | | payment request #5: | \$ - |
| ABA or Routing Number: | (b) (6), (b) (4) | payment request #6: | \$ - |
| Intermediary Bank Information (if applicable): | | payment request #7: | \$ - |
| | | payment request #8: | \$ - |
| | | payment request #9: | \$ - |
| CHECK INFORMATION: Recipient Mailing Address | | payment request #10: | \$ - |
| | | payment request #11: | \$ - |
| Office of Sponsored Research The University of North Carolina at Chapel Hill (b) (6), (b) (4) | | payment request #12: | \$ - |
| | | Contract Balance: | \$ 43,548.23 |

I certify that these costs were incurred on behalf of EcoHealth Alliance and authorize payment.



Peter Daszak

P.I. / DESIGNEE PRINTED NAME
(b) (6)

P.I. / DESIGNEE SIGNATURE

8/4/21

DATE

INVOICE

The University of North Carolina at Chapel Hill



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Remit Payment To:

Office of Sponsored Research
The University of North Carolina at Chapel Hill
C/O [REDACTED] (b) (6), (b) (4)

Federal Tax ID # 56-6001393
Duns # 608195277

Invoice #: GM00174966

| | | | |
|-------------------------|---|---|---|
| Name of Sponsor: | EcoHealth Alliance 520 Eighth Avenue, Suite 1200 New York NY 10018 United States | <input type="radio"/> Interim Billing <input checked="" type="radio"/> Final Billing | Award Amount \$194,375.00 |
|-------------------------|---|---|---|

| | | | |
|-------------------------|--|-----------------------|----------------|
| Sponsor Ref No.: | 19-5722 | Budget Period: | |
| UNC Award No.: | A20-1625-001 | | |
| Award Title: | Understanding Risk of Zoonotic Virus Emergence in EID Ho | | |
| Project ID: | 5119959 | | |
| | | From: 06/17/2020 | To: 05/31/2021 |

email invoices to: [REDACTED] (b) (6) and [REDACTED] (b) (6)

| <u>DESCRIPTION OF SERVICES</u> | EXPENDITURES | |
|--------------------------------|---|---------------------------------|
| | <u>Current</u> 05/01/2021 - 05/31/2021 | <u>Cumulative</u> 05/31/2021 |
| Salaries | \$1,148.19 | \$16,039.83 |
| Fringe Benefits | \$406.94 | \$4,595.01 |
| Supplies | \$13,937.19 | \$75,840.93 |
| Communications | \$0.00 | \$98.94 |
| Freight & Express | \$420.00 | \$420.00 |
| Total Direct | \$15,912.32 | \$96,994.71 |
| Indirect Cost | \$8,831.34 | \$53,832.06 |
| TOTAL | \$24,743.66 | \$150,826.77 |

Payment due upon receipt of invoice

PLEASE RETURN A COPY OF THIS INVOICE WITH YOUR PAYMENT

By signing this report, I certify to the best of my knowledge and belief that the report is true, complete, and accurate, and the expenditures, disbursements and cash receipts are for the purposes and objectives set forth in the terms and conditions of the Federal award. I am aware that any false, fictitious, or fraudulent information, or the omission of any material fact, may subject me to criminal, civil or administrative penalties for fraud, false statements, false claims or otherwise. (U.S. Code Title 18, Section 1001 and Title 31, Sections 3729-3730 and 3801-3812).

| | | |
|-------------------------------------|--------------------|-------------|
| Typed Name of Fiscal Officer | Signature | Date |
| Nancy A Armstrong | [REDACTED] (b) (6) | 07/28/2021 |

For questions regarding invoice, please contact Brian Gerwig
Phone: 919/966-3411 FAX: 919/962-5011
OSRBILLING@unc.edu

| |
|--|
| ACH Payments |
| Account Name: [REDACTED] (b) (6), (b) (4) |
| Financial Institution: [REDACTED] (b) (6), (b) (4) |
| ABA or Routing Number: [REDACTED] (b) (6), (b) (4) |
| Account Number: [REDACTED] (b) (6), (b) (4) |

CW



CONTRACT AGREEMENT

NAME: The University of North Carolina at Chapel Hill

ADDRESS: 104 Airport Dr Suite 2200
Campus Box 1350
Chapel Hill, NC 27599-1350

PROJECT TITLE Understanding Risk of Zoonotic Virus Emergence in EID Hotspots of Southeast Asia

PERIOD 17 June 2020 – 31 May 2021

PHONE: (b) (6)

EMAIL: (b) (6)

FUNDING SOURCE: NIH/NIAID/CREID/07-049-7012-52338

DUNS NUMBER: 608195277

AGREEMENT AMOUNT: \$194,375.00

This Agreement is by and between EcoHealth Alliance, a United States tax-exempt organization, located at 520 Eighth Avenue, Suite 1200, New York, New York, 10018, and the University of North Carolina at Chapel Hill.

An authorized representative of EcoHealth Alliance has executed the original version of this agreement. Please sign the digital copy and return it via email. If EcoHealth Alliance does not receive a signed digital copy within thirty (30) days of mailing, this agreement may be deemed revoked. This agreement shall be effective only upon the receipt of a signed version by EcoHealth Alliance.

I. TERM AND AMOUNT OF THE AGREEMENT

Subject to the continued availability of funding for this project, the term of this agreement shall be as per the period stated above, renewable for an additional term solely by written agreement between the University of North Carolina at Chapel Hill and EcoHealth Alliance.

The amount of the contract as indicated on the preceding page and detailed in **Attachment C: Project Budget** is to be disbursed according to the Disbursement of Funds section below and all other details as elaborated in the Financial Responsibilities section below. All deliverables and project details are elaborated in **Attachment B: Scope of Work**.

II. CONDITIONS OF THE AGREEMENT

The laws of the United States place certain restrictions on the use of funds awarded to organizations by charitable trusts and foundations. Therefore, the University of North Carolina at Chapel Hill agrees to the following terms and conditions:

1. **Internal Revenue Code:** Funds awarded by EcoHealth Alliance may not be used for any forbidden political activities or for any purposes prohibited by the United States Internal Revenue Service Code.
2. **Foreign Corrupt Practices Act of 1977: as amended:** The University of North Carolina at Chapel Hill agrees to be bound by this act that prohibits individuals and entities from making payments to foreign government officials for the purposes of obtaining business. This includes the offer, either directly or indirectly, of anything of value, to a foreign government official to influence that official in his or hers official capacity to do or omit any act in violation of their official capacity or lawful duty, or to secure any improper advantage in order to assist in obtaining or retaining business for or with, or directing business, to any person.

The University of North Carolina at Chapel Hill's directors, officers, employees and agents have not and will not offer, pay, promise or authorize the payment, directly or indirectly through any other person or entity, of any monies or anything of value to any governmental official or employee or any political party or candidate for political office, for the purpose of inducing or rewarding any favorable action or influencing any act or decision of such official or of the government.

Funds in this agreement may not be used to finance the travel, per diem, hotel expenses, meals, conference fees or other conference costs for any member of a foreign government's delegation to an international conference sponsored by a public international organization, except as otherwise agreed upon by EcoHealth Alliance and the University of North Carolina at Chapel Hill.

3. **Support for Acts of Terror:** The University of North Carolina at Chapel Hill certifies and represent that they will be bound by U.S. anti-terrorism legislation that prohibit having transactions with and providing material support or resources to individuals or groups that engage in or support acts of terror and that the University of North Carolina at Chapel Hill does not engage in or support, directly or indirectly, acts of terror.
4. **Financial Conflict of Interest:** The University of North Carolina at Chapel Hill certifies and represents that no Significant Financial Conflict of Interest exists regarding PI Ralph Baric participation in this project that would influence their research. They furthermore agree that if such a conflict develops during the course of this project they will promptly notify and disclose that conflict in writing to the EHA Principal Investigator and the EHA Chief financial Officer and may be required to develop a plan of corrective action to resolve that matter. This requirement shall extend to all named personnel related to this project.
5. **Federal Funding Accountability and Transparency Act:** The University of North Carolina at Chapel Hill agrees to fill out **Attachment A: FFATA** and provide EcoHealth Alliance with all information required by this law including, if required, executive compensation data for

publication on applicable US government websites. The University of North Carolina at Chapel Hill shall obtain a unique DUNS number from Dun & Bradstreet and shall provide it to EcoHealth Alliance.

6. **Non-Discrimination Policy:** The University of North Carolina at Chapel Hill will follow a comprehensive, consistent, and non-discriminatory policy to the extent it can accomplish this goal within the scope of the program objectives.

The University of North Carolina at Chapel Hill acknowledges that EcoHealth Alliance is implementing, and over the course of this agreement will continue to implement, reasonable monitoring and oversight to assure the continuing truth of these representations and certifications and that, on reasonable request, the University of North Carolina at Chapel Hill will provide documentation of the monitoring and oversight of these efforts.

Notwithstanding any term to the contrary, EcoHealth Alliance may terminate this contract with a thirty (30) business day written notice if it determines that the University of North Carolina at Chapel Hill fails to comply with the conditions stated in section II of this contract and the University of North Carolina at Chapel Hill has not cured such breach within the thirty (30) day period. In the event of termination, regardless of whether or not termination was due to breach of this contract, EcoHealth Alliance shall pay the University of North Carolina at Chapel Hill for all approved expenses and non-cancellable obligations made prior to the effective date of termination.

III. USE OF FUNDS

The contract monies, including any interest earned, may only be used for the purpose(s) stated in this agreement, as contained in the approved budget in **Attachment C: Project Budget** and detailed in **Attachment B: Scope of Work**.

Funds may not be expended for any other purpose without the prior written approval of EcoHealth Alliance. Should there be a material change in the purpose, character, or method of operation of the agreement, the University of North Carolina at Chapel Hill agrees to give prompt and detailed written notice to EcoHealth Alliance. The contract project shall be performed to EcoHealth Alliance's satisfaction as determined by EcoHealth Alliance.

Where appropriate, the University of North Carolina at Chapel Hill agrees to conform to accepted animal care and use practices as laid out in the latest IACUC, if applicable, approved by EcoHealth Alliance, and filed with the appropriate regulatory authorities. The University of North Carolina at Chapel Hill also agrees to follow all requirements regarding scientific conduct.

IV. NATURE OF RELATIONSHIP

The parties hereto intend by this agreement solely to specify the terms for the University of North Carolina at Chapel Hill's use of EcoHealth Alliance contract funds. Nothing in this agreement shall be construed as creating or constituting the relationship of employer and employee between EcoHealth Alliance and the University of North Carolina at Chapel Hill or the continuation of funding from EcoHealth Alliance. During the course of completing the contract project work, the University of North Carolina at Chapel Hill remains a distinct and separate legal entity from that of EcoHealth Alliance.

The University of North Carolina at Chapel Hill agrees to conform to the laws and regulations of the location in which they operate and obtain all required permits, agreements and insurance required by local authorities.

V. REPORTING REQUIREMENTS

The University of North Carolina at Chapel Hill agrees to fulfill the program scope of services and reporting requirements that are incorporated into this agreement and detailed in **Attachment B: Scope of Work**.

VI. PHOTOGRAPHS AND VIDEO

EcoHealth Alliance shall own and have the right to use the recorded media (photos, video, audio) notwithstanding any licenses or other rights granted to the University of North Carolina at Chapel Hill herein. The University of North Carolina at Chapel Hill shall retain the unrestricted right to use the recorded media (photos, video, audio) for publication and for educational and research purposes. EcoHealth Alliance grants to the University of North Carolina at Chapel Hill an irrevocable, royalty-free, non-transferable, non-exclusive right and license to use, reproduce, make derivative works, display, and perform publicly any material first developed and delivered under this contract.

VII. PUBLICATION REVIEW AND APPROVAL

At least thirty (30) days prior to the publication of any written work made possible by this EcoHealth Alliance contract agreement, or involving data or information gained in whole or in part from research or activity conducted under this agreement, a copy of such work must be sent to EcoHealth Alliance for pre-publication review and recommendations for revision by EcoHealth Alliance. The University of North Carolina at Chapel Hill is under no obligation to make any changes to the requested publication, except to delete Confidential Information within the EcoHealth Alliance review period. EcoHealth Alliance will respond within thirty (30) days of notification. All published work must recognize EcoHealth Alliance or as may be otherwise determined EcoHealth Alliance and required by the parent award from NIH/NIAID in the acknowledgements. Written work that is not approved by EcoHealth Alliance may not recognize EcoHealth Alliance in the acknowledgements.

The Parties may communicate to one another information of a proprietary nature that is directly related to the Scope of Work ("Confidential Information"). "Disclosing Party" means the Party providing Confidential Information to the other Party, and "Receiving Party" means the Party receiving Confidential Information. The Receiving Party shall neither use nor disclose Confidential Information except as permitted herein during the term of the agreement and for five (5) years thereafter. The Parties shall disclose only the portion of Confidential Information necessary to conduct the Study. Confidential Information shall be disclosed in writing and identified as such, or if disclosed orally, shall be reduced to writing within thirty (30) days thereafter. The definition of Confidential Information does not include information is (i) at the time of disclosure, is in the public domain, or later becomes part of the public domain; (ii) was received by the Receiving Party from a third Party; (iii) was independently developed by Receiving Party; (iv) is approved for release by the Disclosing Party; (v) was in Receiving Party's possession at the time of disclosure; or (vi) is required to be disclosed pursuant to law, regulation, or a court order.

VIII. EVALUATION OF THE AGREEMENT

At its own expense, EcoHealth Alliance may monitor and conduct an evaluation of operations under this contract agreement. Evaluation may include scheduled visits to the University of North Carolina at Chapel Hill by representatives of EcoHealth Alliance in order to observe and discuss the funded project.

IX. DISBURSEMENT OF FUNDS

Unless otherwise stated below, contract funds shall be disbursed by EcoHealth Alliance based on the following criteria:

1. The University of North Carolina at Chapel Hill shall submit a valid invoice to EcoHealth Alliance indicating the services performed, as well as the time period covered by the invoice. The University of North Carolina at Chapel Hill should attach a transaction report needed to substantiate any out-of-pocket expenses.
2. The University of North Carolina at Chapel Hill must sign the invoice as certification that the services rendered, and all expenses incurred have been pursuant to the scope of service contained in this agreement.
3. EcoHealth Alliance will invoice the funding source for the value of the invoice and remit the funds to the University of North Carolina at Chapel Hill in a timely manner.
4. EcoHealth Alliance reserves the right to delay payment of any funds due to insufficient documentation submitted by the University of North Carolina at Chapel Hill.
5. The University of North Carolina at Chapel Hill acknowledges that all invoices must be submitted to EcoHealth Alliance no more than 45-days after the end of the contract. Invoices submitted after these periods may not be invoiced to the funding source and may not be paid to the University of North Carolina at Chapel Hill.

Unless otherwise directed, EcoHealth Alliance shall remit US funds by bank wire made payable to the University of North Carolina at Chapel Hill. The legal name of the University of North Carolina at Chapel Hill, who must be the sole owner of the account, must appear on the account. The University of North Carolina at Chapel Hill shall provide the following banking information to EcoHealth Alliance:

Organization Name: University of North Carolina at Chapel Hill
Bank Name: (b) (6), (b) (4)
Bank Address:
Account Number:
ABA Code:
Bank Telephone:

When a transfer is initiated EcoHealth Alliance will include (b) (6), (b) (4) in the message and notify:

Dawn DiLello, Cash Manager
Office of Sponsored Research

Phone: (b) (6) Fax: 919-962-5011
Email: (b) (6)

X. SUBCONTRACTOR 'S FINANCIAL RESPONSIBILITIES

As applicable, the University of North Carolina at Chapel Hill agrees to adhere to all requirements contained in 2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards during the term of the agreement. The University of North Carolina at Chapel Hill acknowledges responsibility for Federal Audit requirements for funds received under this agreement and will provide EcoHealth Alliance a copy of their most current single audit report as may be provided. The University of North Carolina at Chapel Hill agrees that all overhead charged to this grant shall not exceed the amount permitted by the federal indirect cost rate in effect during the performance period. The University of North Carolina at Chapel Hill shall provide EcoHealth Alliance with a copy of their most current federal indirect cost rate agreement. If requested, the University of North Carolina at Chapel Hill will provide EcoHealth Alliance with a copy of a most current audit report. The University of North Carolina at Chapel Hill agrees to keep systematic records of all expenditures relating to this agreement. A quarterly financial report is required along with a signed invoice for services and reimbursement of expenses. Documentation of expenses, consisting of bills, invoices, receipts, logbooks (acceptable only for gasoline for cars and boats), etc., must be retained by the University of North Carolina at Chapel Hill for three (3) years after the close of the agreement period and must be available for inspection by representatives of EcoHealth Alliance at any time during this period. EcoHealth Alliance may, at its own expense, examine, audit, or have audited the records of the University of North Carolina at Chapel Hill insofar as they relate to activities supported by this agreement. All audits, inspections, and examinations must be reasonably requested, scheduled at least seven (7) business days in advance to occur during normal business hours, and are conducted at the sole expense of EcoHealth Alliance.

The University of North Carolina at Chapel Hill budget records must be itemized in the following categories, as applicable:

1. Salary or stipend – detailed by person, rate as applicable, date, and amount
2. Purchased services (e.g., field asst., boat hire) – detailed at the level of numbers 1 & 2, above. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
3. Vehicle associated costs – mileage to be indicated along with any associated costs: driver, repairs, insurance, etc. Detailed logbooks (including dates, times, and signatures) are acceptable when signed by both University of North Carolina at Chapel Hill and EHA or responsible party.
4. Travel – trip cost indicating departure/arrival dates and air/car/train/boat costs along with all boarding passes and receipts.
5. Accommodation – location and amounts per person along with all lodging receipts.
6. Other – any other items that do not fall into the categories above with same level of detail.

The University of North Carolina at Chapel Hill shall submit detailed invoices to EcoHealth Alliance detailing actual expenditures compared to the approved budget or contract total. Invoices are subject to review and approval of EcoHealth Alliance's principal investigator and/or grants and programs manager who shall certify that all expenses are in conformity with the award.

EcoHealth Alliance reserves the right to request documentation of all costs incurred as part of its normal practices in the use of federal funds.

XI. PURCHASE OF CAPITAL EQUIPMENT

All capital equipment, items valued over US \$5,000 and with a useful life of three years or more, purchased with agreement money remains the property of The University of North Carolina.

XII. UNUSED FUNDS

The University of North Carolina at Chapel Hill agrees to return to EcoHealth Alliance at the conclusion of the agreement period all agreement funds that have not been used to complete the project. The University of North Carolina at Chapel Hill may not use agreement funds after the end of the agreement period without the written consent of EcoHealth Alliance unless both University of North Carolina at Chapel Hill and EcoHealth Alliance agree to an extension of this contract and both parties sign this in the form of an amendment.

XIII. REVOCATION AND REVERSION

With forty-five (45) days written notification either party may terminate the Agreement without cause and cancel all unpaid installments of the agreement. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

In addition, either party may terminate the Agreement for cause upon thirty (30) days written notice to the other party of an uncured breach, if the other party has breached the Agreement and has not cured such breach within the thirty (30) day period. EcoHealth may require the University of North Carolina at Chapel Hill to repay all portions of the agreement that are unobligated and reasonably within the University of North Carolina at Chapel Hill's control. EcoHealth Alliance agrees to pay the University of North Carolina at Chapel Hill all reasonable and non-cancelable obligation incurred by the University of North Carolina at Chapel Hill up to the effective date of termination.

XIV. INSURANCE AND LIABILITY

By accepting the terms and conditions of this agreement, the University of North Carolina at Chapel Hill also accepts full responsibility for any and all applicable insurance needs to the extent permitted by the North Carolina Tort Claims Act for themselves and all other University of North Carolina at Chapel Hill, project related personnel, unless a separate arrangement has been made between EcoHealth Alliance and the University of North Carolina at Chapel Hill. By signing this agreement, both the University of North Carolina at Chapel Hill and EcoHealth Alliance relieve the other party from any and all liability due to accident or injury, or any other claims that may result from any activities conducted by the University of North Carolina at Chapel Hill in relation to the contract project.

XV. ADDITIONAL SUPPORT

In making this contract agreement, EcoHealth Alliance assumes no obligation to provide other or additional support to the University of North Carolina at Chapel Hill.

XVI. NOTICE

All correspondence and project reports should include the reference log number and follow the reporting guidelines described above. Copies should be directed to:

Dr. Aleksei Chmura
EcoHealth Alliance
520 Eighth Avenue, Suite 1200
New York, NY 10018

(t) (b) (6)
(e) (b) (6)

XVII. INDEMNIFICATION

The University of North Carolina at Chapel Hill and EcoHealth Alliance hereby mutually agree to indemnify and hold each other, respectively, and each other's affiliates, officers, employees, successors and assigns, harmless from and against claims, demands, actions, proceedings, investigation and right of action whether action is instituted or not and, if instituted, whether at any trial or appellate level, whether raised by the other party or a third party, arising from the intentional and/or negligent acts, errors or omissions of the University of North Carolina at Chapel Hill or EcoHealth Alliance to the extent permitted by the North Carolina Tort Claims Act.

XVIII. PARTIAL INVALIDITY

If any term or provision of this agreement to any person or circumstance shall, to any extent, be invalid or unenforceable, the remainder of this agreement shall not be affected thereby and shall be valid and enforceable to the fullest extent permitted by law.

XIX. Biosafety

Laboratory

- EcoHealth Alliance will review and evaluate the lab biosafety at project research sites, provide annual trainings, and conduct laboratory inspections as needed.
- All partner laboratories are required to submit applicable approval documents from their Institutional Biosafety Committees (IBC) to EcoHealth Alliance for review following signed contracts, to ensure the compliance with *NIH and CDC guidelines* (link below) or comparable. No laboratory work may be conducted without confirmed receipt by EcoHealth Alliance of these documents.
- Biosafety review and evaluation for all partner laboratories will be conducted following the *NIH and CDC Guidelines* (link below) or comparable.
- Any accident or concern related to work funded under this award must be reported to EcoHealth Alliance and your Institutional Biosafety Committee (IBC) within 72 hours and will be investigated by an independent auditor. Work will be suspended immediately until an investigation is completed to the satisfaction of EcoHealth Alliance.

NIH Guidelines: https://www.dropbox.com/s/sa0g11uyfrn139t/NIH_Guidelines%202019.pdf?dl=0

CDC Laboratory Biosafety Manual:

<https://www.dropbox.com/s/bp1g59x6bq18ehl/CDC%20Biosafety%20Guidelines.pdf?dl=0>

Field

- EcoHealth Alliance will have oversight of the field work biosafety, provide training, and enforcing biosafety regulations in the field for all work with animals.
- In-country Institutional Animal Care and use Committee (IACUC) and Institutional Review Board (IRB) approvals to work with wild animals and human subjects are required to submitted to EcoHealth Alliance following signed contracts. No fieldwork may be conducted without confirmed receipt by EcoHealth Alliance of these approvals.
- Review and approval will be conducted globally and locally with the IACUCs and IRBs.
- Field biosafety trainings will be conducted every other year or more frequently as necessary. Online refresher trainings will be made available every year for all members of teams working with wild animals, humans, and relevant specimens.

XX. OTHER PROVISIONS

This agreement may not be transferred or assigned by either party without the prior written consent of the other, and any breach of this prohibition will deem the agreement null and void.

Each party represents and warrants that its authorized agent(s) have duly executed this agreement on its behalf.

This agreement constitutes a single integrated contract expressing the entire agreement of the parties hereto. There are no other agreements, written or oral, express or implied, between the parties hereto, concerning the subject matter hereof, except the agreements set forth in this agreement. Any amendment to this agreement is effective only if set forth in writing and signed by both parties.

(b) (6)

Dr. Peter Daszak
President
EcoHealth Alliance

(b) (6)

for Terry Magnuson, PH.D.
Vice Chancellor for Research
The University of North Carolina at Chapel Hill

01/14/2021

DATE

01/13/2021

DATE

ATTACHMENT A: FFATA

The Federal Funding Accountability and Transparency Act (FFATA) was signed on September 26, 2006 and requires information on federal awards (federal financial assistance and expenditures) be made available to the public via a single, searchable website, which is www.USASpending.gov. All contractors receiving funds from EcoHealth Alliance are required to provide the following information as a condition of receiving funds.

Please answer the following questions Yes or No.

- a. In the previous tax year, was your company's gross income from all sources above \$300,000?

Yes No

- b. In the University of North Carolina at Chapel Hill's business or organization's preceding completed fiscal year, did its business or organization (the legal entity to which the DUNS number it provided belongs) receive (1) 80 percent or more of its annual gross revenues in U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements; **and** (2) \$25,000,000 or more in annual gross revenues from U.S. federal contracts, subcontracts, loans, grants, subgrants, and/or cooperative agreements?

Yes No

- c. Does the public have access to information about the compensation of the executives in the University of North Carolina at Chapel Hill's business or organization (the legal entity to which the DUNS number it provided belongs) through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986?

Yes No

- d. Does your business or organization maintain an active registration in the System for Award Management (www.SAM.gov)?

Yes No

ATTACHMENT B: Scope of Work

Under the supervisor of Dr. Ralph Baric, Co-Investigator, coordinated by Dr. Timothy Sheahan, Research Scientist and Lab Coordinator, working close with a lab technician (TBN) the laboratory work will be implemented at the University of North Carolina at Chapel Hill to conduct systematic studies on the epidemiology, genetic evolution, interspecies infection mechanism and pathogenesis of a series of bat-borne CoVs, including:

- ***In vitro* Infection Experiment.** In vitro infection experiments using pseudoviruses carrying the spike proteins (wild type or mutants) or live viruses in cell lines of different origins, binding affinity assays between the spike proteins (wild type or mutants) and different cellular receptor molecules, and humanized mouse experiments.
- **Developing Luciferase Immunoprecipitation System (LIPS) Assay.** Develop LIPS assay for bat CoV antibody detection.
- **The Enzyme-Linked Immunosorbent Assay (ELISA) Testing.** Serological testing of bat serum samples with ELISA plates.
- **Meetings and travels.** Dr. Baric and lab team members will meet with other Co-PIs from EcoHealth Alliance and partners to refine study protocols, report results, and prepare publications

Coronaviruses (e.g. SARS-CoV, MERS-CoV), henipaviruses (HeV, NiV) and filoviruses (EBOV, MARV) are highly pathogenic viruses which emerged from zoonotic reservoirs to cause significant human morbidity and mortality. Like most emerging zoonoses, these pathogens originate in wildlife reservoirs, sometimes spilling over first into livestock ‘amplifier’ hosts, or directly into localized human populations with high levels of animal contact. Efforts to prevent emerging zoonoses have targeted these high-risk populations in regions prone to disease emergence, coupled with rapid surveillance systems designed to rapidly identify newly emerged virus pathogens in human outbreak settings. However, surveillance and control is hampered by inadequate information on the basic disease ecology, the availability of human cohorts at the interface between wildlife and human habitats, and cohorts of individuals in high-risk sites for secondary disease amplification and spread to sites around the world.

Dr. Baric will lead the studies at the University of North Carolina at Chapel Hill. He will design research strategies, interpret findings and review research outcomes with another investigator and Mr. Yount. At a regular basis, Dr. Baric will report the results of the team’s research to Dr. Daszak, and together, they will use this information to identify additional research priorities and design downstream studies. Drs. Daszak and Baric have published together in the past and participated on research project applications. He will work closely with another investigator and Tse and Mr. Yount to prepare timely reports, share research and discuss future research directions with the group.

ATTACHMENT C: PROJECT BUDGET

| YEAR 1 | | |
|--------------------------|-----------------|---------------------------------|
| SALARY | | 17 JUN 2020 - 31 MAY 2021 |
| Ralph Baric | Co-Investigator | (b) (6), (b) (4) |
| TBD | Co-Investigator | |
| Boyd Yount | Research Asst. | |
| Long Ping Victor Tse | Lab Tech | |
| TOTAL SALARY | | \$ 70,189.00 |
| FRINGE | 30.95% | \$ 21,726.00 |
| TOTAL SALARY + FRINGE | | \$ 91,915.00 |
| TRAVEL | | |
| Domestic | | \$ 1,000.00 |
| International | | \$ - |
| TOTAL TRAVEL | | \$ 1,000.00 |
| OTHER DIRECT COSTS | | |
| Materials & Supplies | | \$ 30,585.00 |
| Publication Costs | | \$ 500.00 |
| Animal Housing | | \$ 1,000.00 |
| TOTAL OTHER DIRECT COSTS | | \$ 32,085.00 |
| TOTAL DIRECT | | \$ 125,000.00 |
| INDIRECT | 55.50% | \$ 69,375.00 |
| TOTAL | | \$ 194,375.00 |



Hongying Li <(b) (6)>

1U01AI151797: Newly Established CREID EID-SEARCH Subaward Agreement with the University of North Carolina at Chapel Hill

2 messages

Hongying Li <(b) (6)> Tue, Jan 26, 2021 at 7:40 PM
To: "Patterson, Jean (NIH/NIAID) [E]" <(b) (6)> Shaun Gratton <(b) (6)>
Cc: Peter Daszak <(b) (6)> Aleksei Chmura <(b) (6)> Su Yadana <(b) (6)>

Dear Jean and Shaun,

As per our revised notice of award from 28 August 2020, attached please find a PDF of our newly established (14th January 2021) subaward agreement with the University of North Carolina at Chapel Hill under this award (1U01AI151797), including a description of the biosafety monitoring plan.

Please confirm receipt and let me know if you have any questions about it. Thank you very much!

Best regards,
Hongying

Hongying Li, MPH
Senior Program Coordinator & Research Scientist

EcoHealth Alliance
520 Eighth Avenue, Ste. 1200
New York, NY 10018

(b) (6) (mobile)
www.ecohealthalliance.org

EcoHealth Alliance develops science-based solutions to prevent pandemics and promote conservation.

 **UNC EID SEARCH CONTRACT FINAL SIGNED.pdf**
514K

Gratton, Shaun (NIH/NIAID) [E] <(b) (6)> Wed, Jan 27, 2021 at 8:04 AM
To: Hongying Li <(b) (6)> "Patterson, Jean (NIH/NIAID) [E]" <(b) (6)>
Cc: Peter Daszak <(b) (6)> Aleksei Chmura <(b) (6)> Su Yadana <(b) (6)>

Good Morning Hongying,

This email confirms NIAID's receipt of the newly established subaward agreement on grant 1U01AI152797-01.

Thank you,

--

Shaun Gratton

Grants Management Program

Division of Extramural Activities

National Institute of Allergy and Infectious Diseases

National Institutes of Health

5601 Fishers Lane, Rm. 4G48

Rockville, Maryland 20852

Telephone Number: (b) (6)

Email Address: (b) (6)

Note:

Effective January 1, 2017, NIH closeout documentation policy has changed (see [NOT-OD-17-022](#)). NIH is no longer accepting Final Progress Reports (FPR). Grantees must now report final project outcomes using the new F-RPPR. For instruction on how to submit the new F-RPPR please see instructions on the [NIH RPPR Page](#).

Disclaimer:

The information in this e-mail and any of its attachments is confidential and may contain sensitive information. It should not be used by anyone who is not the intended recipient. If you have received this e-mail in error please inform the sender and delete it from your mailbox or any other storage devices. The National Institutes of Allergy and Infectious Diseases (NIAID) shall not accept liability for any statement made that are the sender's own and not expressly made on behalf of the NIAID by one of its representatives.

[Quoted text hidden]

RISK ASSESSMENT MATRIX

Risk Factors Based on the Subrecipient Organization:

| ## | Category | Lower Risk (1) | Medium Risk (2) | Higher Risk (3) |
|----|---|--|--|---|
| 1 | Foreign vs. Domestic | U.S. based | Foreign location with stable government and financial systems | Foreign location with unstable government or financial systems or restricted location |
| 2 | Subrecipient Organization Type | University or non-profit subject to federal audit requirements | Non-profit not subject to federal audit requirements | Industry or other for-profit organization not subject to federal or other audit regulations |
| 3 | Maturity of Organization | Mature (more than 10 years) | Mature, but not research oriented | Start-up, no fiscal controls in place yet |
| 4 | Subrecipient's prior experience with similar subawards or awarding agency | Subrecipient has prior experience with the same/similar subawards. Subrecipient also receives awards directly from the awarding agency | Subrecipient does not have prior experience with type of award, or Subrecipient does not receive Federal awards or is unfamiliar with awarding agency's requirements | Subrecipient does not have prior experience with the type of research or programmatic deliverables required by subaward |
| 5 | EHA's prior experience with Subrecipient | Previous positive experience as EHA subrecipient | Previous experience as EHA subrecipient but may have some minor concerns | New subrecipient or previous negative experience |
| 6 | Adequacy of Facilities | Work occurs in adequate, established space | Work occurs in adequate, but newly established space | Subrecipient's resources are inadequate |
| 7 | Audit Results & Accounting / Procurement Systems | Has annual audit with unqualified opinion | Has annual third-party financial audit. Subrecipient has a new or substantially changed systems or personnel for project administration | Has not had a financial audit by a 3rd party or current audit has material weaknesses, reportable conditions or findings. Responses to the Financial Status Questionnaire are questionable or indicate a lack of policies, separation of duties, or system controls |

Risk Factors Based on the Subaward:

| ## | Category | Lower Risk (1) | Medium Risk (2) | Higher Risk (3) |
|----|---|--|--|--|
| 8 | Amount/Percentage Passed-through | Lower funding levels or percentage of total funds allocated to subrecipient (e.g. <\$100k) | Funding allocated to subrecipient is a large part of the total award | Funding level>\$500K or >49% of award |
| 9 | Scope of Work & Project Deliverables | Easily met objectives (e.g. reports). Progress based on milestones or observable outcomes | Subrecipient not meeting deliverables, resulting in a change in project scope | Deliverables necessary in order to achieve project success. No reporting until end of the project, no measurable or observable milestones or outcomes. |
| 10 | Additional Approvals | No compliance issues involved | Subrecipient has protocols in place to meet compliance requirements | Compliance requirements are in place but subrecipient does not have protocols approve/monitor the requirements. Project involves export-controlled material, data, or technical reports. |
| 11 | Relationship Between EHA PI and Subrecipient PI | Subrecipient PI is a familiar collaborator | Subrecipient PI is an established researcher, but has no prior direct relationship | No previous collaboration or relationship |
| 12 | Subrecipient familiarity with Award Mechanism | Subrecipient is familiar with award mechanism (e.g. contract, grant) and prime sponsor | Subrecipient is unfamiliar with award mechanism (e.g. contract, grant) or with prime sponsor | Subrecipient is unfamiliar with award mechanism (e.g. contract, grant) and prime sponsor |
| 13 | Cost Sharing | Subrecipient has not made commitment to share costs | Subrecipient has committed to fund project costs not paid by the award or subaward | Subrecipient has committed to fund substantial project costs not paid by the award or subaward |
| 14 | Rate of Subrecipient Spending on Award | Pace of spending is consistent with budgeted amounts per year | Pace of spending slightly greater or less than budgeted amount per year | Spending far outpaces or is severely below that which was in the submitted budget |

EHA employs a risk-based approach to subrecipient monitoring, focusing more frequent and robust monitoring efforts on those subrecipients who are deemed to pose an elevated risk for potential non-compliance.

The Risk Assessment Matrix:

The Risk Assessment Matrix is a tool designed for departments to assess a subrecipient's risk and help determine the level of monitoring required. The examples in the matrix are intended as

| |
|--|
| <p>Explanation of risk levels:</p> <ul style="list-style-type: none"> HIGH (Score: 34-42) – The risk associated with engaging the subrecipient could compromise the project's goals, objectives, or compliance the prime sponsor's terms and conditions. MEDIUM (Score: 24-33) – The risk associated with engaging the subrecipient could result in EHA operating inefficiently and/or expending unplanned resources to meet the project's LOW (Score: 14-23) – The risk associated with engaging the subrecipient has no anticipated measurable effect on the achievement of the project's goals and objectives. |
|--|

Threshold Questions: A subaward cannot be issued if the agreement meets any the following requirements:

- The subrecipient is debarred or suspended
- The subrecipient has a compliant conflict of interest policy in place, if required by the sponsor/award
- Financial management and accounting systems are inadequate to account for award funds in accordance with federal requirements

Develop monitoring policies for each Risk categories

- For Low Risk Subrecipients conduct a Semi-Annual Review Process based on the corresponding check list
- For Medium Risk Subrecipients conduct a Quarterly Review Process based on the corresponding check list
- For High Risk Subrecipients conduct a Monthly Review Process based on the corresponding check list



RISK ASSESSMENT MATRIX

Name of the Subrecipient: The University of North Carolina at Chapel Hill

Funding Source: NIH/NIAID

Prime Award Number: 1U01AI151797-01

Subrecipient Awarding Period: 17 June 2020 - 31 May 2021

Threshold Questions: A subaward cannot be issued if the agreement meets any the following requirements:

| | Yes/No |
|---|--------|
| The subrecipient is debarred or suspended | No |
| The subrecipient doesn't have a compliant conflict of interest policy in place, if required by the sponsor/award | No |
| Financial management and accounting systems are inadequate to account for award funds in accordance with federal requirements | No |

If all Threshold Questions answered 'NO', review the Risk assessment Matrix below:

Risk Factors Based on the Subrecipient Organization:

| ## | Category | Lower Risk (1) Medium (2) High Risk (3) |
|----|---|---|
| 1 | Foreign vs. Domestic | 1 |
| 2 | Subrecipient Organization Type | 1 |
| 3 | Maturity of Organization | 1 |
| 4 | Subrecipient's prior experience with similar subawards or awarding agency | 1 |
| 5 | EHA's prior experience with Subrecipient | 1 |
| 6 | Adequacy of Facilities | 1 |
| 7 | Audit Results & Accounting / Procurement Systems | 1 |

Risk Factors Based on the Subaward:

| ## | Category | Lower Risk (1) Medium (2) High Risk (3) |
|----|---|---|
| 8 | Amount/Percentage Passed-through | 2 |
| 9 | Scope of Work & Project Deliverables | 1 |
| 10 | Additional Approvals | 1 |
| 11 | Relationship Between EHA PI and Subrecipient PI | 1 |
| 12 | Subrecipient familiarity with Award Mechanism | 1 |
| 13 | Cost Sharing | 1 |
| 14 | Rate of Subrecipient Spending on Award | 1 |

TOTAL SCORE

15

Reviewed and Approved by

(b) (6)

8-Jun-20

Finance Representative

Date

Name: Armine Arustamyan
Title: Chief Financial Officer

LOW

Prog

(b) (6)

8-Jun-20

Date

Name: Aleksei Chmura
Title: Chief of Staff

STATE OF NORTH CAROLINA

OFFICE OF THE STATE AUDITOR
BETH A. WOOD, CPA



THE UNIVERSITY OF NORTH CAROLINA AT CHAPEL HILL

CHAPEL HILL, NORTH CAROLINA
FINANCIAL STATEMENT AUDIT REPORT
FOR THE YEAR ENDED JUNE 30, 2020

A CONSTITUENT INSTITUTION OF THE UNIVERSITY OF NORTH CAROLINA
SYSTEM AND A COMPONENT UNIT OF THE STATE OF NORTH CAROLINA



NCOSA
The Taxpayers' Watchdog

USRTK FOIA #62623 - 2026-03-06
001084

STATE OF NORTH CAROLINA
Office of the State Auditor



Beth A. Wood, CPA
State Auditor

2 S. Salisbury Street
20601 Mail Service Center
Raleigh, NC 27699-0600
Telephone: (919) 807-7500
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AUDITOR'S TRANSMITTAL

The Honorable Roy Cooper, Governor
The General Assembly of North Carolina
Board of Trustees, The University of North Carolina at Chapel Hill

We have completed a financial statement audit of The University of North Carolina at Chapel Hill for the year ended June 30, 2020, and our audit results are included in this report. You will note from the independent auditor's report that we determined that the financial statements are presented fairly in all material respects.

The results of our tests disclosed no deficiencies in internal control over financial reporting that we consider to be material weaknesses in relation to our audit scope or any instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

North Carolina General Statutes require the State Auditor to make audit reports available to the public. Copies of audit reports issued by the Office of the State Auditor may be obtained through one of the options listed in the back of this report.

A handwritten signature in black ink that reads "Beth A. Wood".

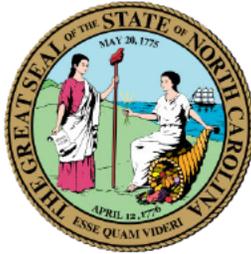
Beth A. Wood, CPA
State Auditor



Beth A. Wood, CPA
State Auditor

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INDEPENDENT AUDITOR'S REPORT

STATE OF NORTH CAROLINA
Office of the State Auditor



Beth A. Wood, CPA
State Auditor

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INDEPENDENT AUDITOR'S REPORT

Board of Trustees
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina

Report on the Financial Statements

We have audited the accompanying financial statements of The University of North Carolina at Chapel Hill (University), a constituent institution of the multi-campus University of North Carolina System, which is a component unit of the State of North Carolina, and its discretely presented component units, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the University's basic financial statements as listed in the table of contents.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express opinions on these financial statements based on our audit. We did not audit the following:

- The financial statements of the UNC Investment Fund, LLC, which represent 54.21 percent and 2.18 percent, respectively, of the assets and revenues of the University.
- The financial statements of the UNC Intermediate Pool, LLC, which represent 4.08 percent and 0.16 percent, respectively, of the assets and revenues of the University.
- The financial statements of the UNC Management Company, Inc., which represent 0.12 percent and 0.60 percent, respectively, of the assets and revenues of the University.

- The financial statements of The University of North Carolina at Chapel Hill Foundation, Inc., which represent 1.45 percent and 1.01 percent, respectively, of the assets and revenues of the University.
- The financial statements of The Kenan-Flagler Business School Foundation, which represent 0.61 percent and 0.95 percent, respectively, of the assets and revenues of the University.
- The financial statements of the UNC Health Foundation, Inc., The Educational Foundation Scholarship Endowment Trust, or The University of North Carolina at Chapel Hill Arts and Sciences Foundation, Inc., the University's discretely presented component units.

The financial statements listed above were audited by other auditors, whose reports have been furnished to us, and our opinions, insofar as they relate to the amounts included for those entities, are based solely on the reports of the other auditors. We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement. The financial statements of the University's blended and discretely presented component units were not audited in accordance with *Government Auditing Standards*.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the University's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Opinions

In our opinion, based on our audit and the reports of the other auditors, the financial statements referred to above present fairly, in all material respects, the respective financial position of The University of North Carolina at Chapel Hill, and its discretely presented component units, as of June 30, 2020, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in accordance with accounting principles generally accepted in the United States of America.

Other Matters – Required Supplementary Information

Accounting principles generally accepted in the United States of America require that the Management's Discussion and Analysis and other required supplementary information, as listed in the table of contents, be presented to supplement the basic financial statements. Such

information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We and other auditors have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Reporting Required by *Government Auditing Standards*

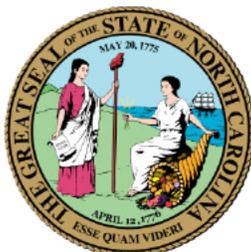
In accordance with *Government Auditing Standards*, we have also issued our report dated December 9, 2020 on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.



Beth A. Wood, CPA
State Auditor

Raleigh, North Carolina

December 9, 2020



MANAGEMENT'S DISCUSSION AND ANALYSIS

Introduction

Management's Discussion and Analysis provides an overview of the financial position and activities of The University of North Carolina at Chapel Hill (the University) for the fiscal year ended June 30, 2020, with comparative information for the fiscal year ended June 30, 2019. Management has prepared the discussion and analysis to be read in conjunction with the financial statements and accompanying notes to the financial statements.

The University is a constituent institution of the 17-campus University of North Carolina System (UNC System), a component unit of the State of North Carolina, and an integral part of the State's *Comprehensive Annual Financial Report (CAFR)*. The University is a global higher education leader known for innovative teaching, research, and public service. Now in its third century, the University, at the time of this publication, offers 74 bachelor's, 104 master's, 65 doctorate, and seven professional degree programs through 14 schools and the College of Arts and Sciences. A total of 30,101 undergraduate, graduate, and professional students learn from a faculty of 3,887.

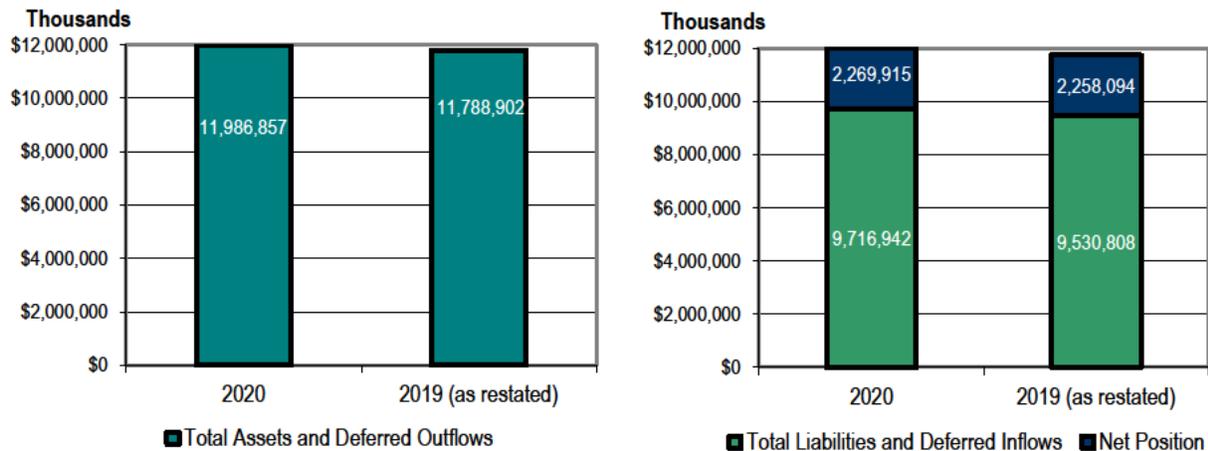
The financial reporting entity for the financial statements is comprised of the University and its component units. Certain component units are reported as if they were part of the University, and others are reported as discretely presented component units based on the nature and significance of their relationship to the University. Note 1A in the notes to the financial statements provides detailed information on the financial reporting entity.

Financial Overview

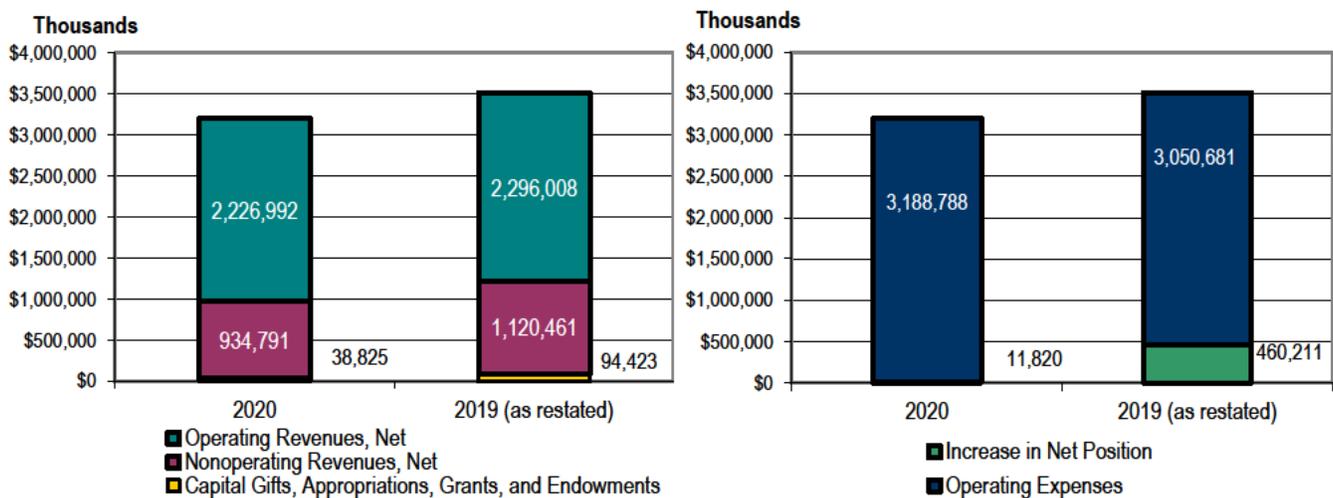
The University maintained its solid financial position at June 30, 2020. The current ratio at June 30, 2020 was 3.6 times, compared to 3.5 times at June 30, 2019. Net position, which represents the residual interest in the University's assets and deferred outflows of resources after deducting liabilities and deferred inflows of resources, was \$2.3 billion at June 30, 2020, consistent with \$2.3 billion (as restated) at June 30, 2019. The University's total assets and deferred outflows of resources were \$12.0 billion, and the total liabilities and deferred inflows were \$9.7 billion at June 30, 2020.

A comparison of the total assets and deferred outflows of resources, liabilities and deferred inflows of resources, and net position at June 30, 2020, and June 30, 2019, respectively, along with the major components of the changes in net position for the two fiscal years is presented below:

STATEMENT OF NET POSITION



STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION



Net position increased 0.5% at June 30, 2020, from the prior year's restated balance.

Using the Financial Statements

The University's financial statements have been prepared in accordance with generally accepted accounting principles as prescribed by the Governmental Accounting Standards Board (GASB), which establishes standards for external financial reporting for public colleges and universities. These statements are presented on a consolidated basis to focus on the University as a whole. The full scope of the University's activities is a single business-type activity and accordingly, is reported within a single column in the basic financial statements.

The University's financial statements include the following financial statements with related note disclosures:

- *Statement of Net Position for the University*
- *Statement of Revenues, Expenses, and Changes in Net Position for the University*
- *Statement of Cash Flows for the University*
- *Statement of Financial Position for Component Units of the University*
- *Statement of Activities for Component Units of the University*

Management's Discussion and Analysis provides information regarding the Statement of Net Position for the University and the Statement of Revenues, Expenses, and Changes in Net Position for the University.

Condensed Statement of Net Position

The Statement of Net Position presents the financial position of the University at the end of the fiscal year, and includes all assets and deferred outflows of resources, liabilities and deferred inflows of resources, segregating the assets and liabilities into current and noncurrent components. The following table summarizes the University's Statement of Net Position on June 30, 2020 and June 30, 2019:

CONDENSED STATEMENT OF NET POSITION
(Dollars in Thousands)

| | 2020 | 2019 (as restated) | Percent Change |
|--|---------------------|-----------------------|-------------------|
| Assets: | | | |
| Current Assets | \$ 1,734,944 | \$ 1,681,983 | 3.1 |
| Noncurrent Assets: | | | |
| Endowment, Restricted, and Other Investments | 6,279,015 | 6,195,624 | 1.3 |
| Capital Assets, Net | 3,050,507 | 3,122,915 | (2.3) |
| Other Noncurrent Assets | 253,777 | 251,080 | 1.1 |
| Total Assets | 11,318,243 | 11,251,602 | 0.6 |
| Total Deferred Outflows of Resources | 668,614 | 537,300 | 24.4 |
| Liabilities: | | | |
| Current Portion of Long-Term Liabilities | 96,795 | 99,647 | (2.9) |
| Other Current Liabilities | 389,910 | 375,970 | 3.7 |
| Noncurrent Liabilities: | | | |
| Funds Held in Trust for Pool Participants | 4,062,395 | 3,917,847 | 3.7 |
| Long-Term Liabilities, Net | 4,009,613 | 3,757,114 | 6.7 |
| Other Noncurrent Liabilities | 178,451 | 136,668 | 30.6 |
| Total Liabilities | 8,737,164 | 8,287,246 | 5.4 |
| Total Deferred Inflows of Resources | 979,778 | 1,243,562 | (21.2) |
| Net Position: | | | |
| Net Investment in Capital Assets | 1,682,287 | 1,728,392 | (2.7) |
| Restricted | 2,423,067 | 2,413,804 | 0.4 |
| Unrestricted | (1,835,439) | (1,884,102) | (2.6) |
| Total Net Position | \$ 2,269,915 | \$ 2,258,094 | 0.5 |

Current Assets and Liabilities

As derived from the Statement of Net Position, working capital was \$1.2 billion at June 30, 2020, compared to \$1.2 billion at June 30, 2019. Working capital is defined as current assets less current liabilities. Current assets were \$1.7 billion at June 30, 2020, consistent with \$1.7 billion at June 30, 2019.

Endowment, Restricted, and Other Investments

Investment assets - Total endowment, restricted, and other investments were \$6.3 billion at June 30, 2020. Of the \$6.3 billion invested, approximately \$3.0 billion are assets not owned by the University and not part of the University's reporting entity, but rather are owned by other UNC System campuses and their affiliates who have elected to pool their assets with the University's through the UNC Investment Fund, LLC. These funds are classified as funds held in trust for pool participants in the University's financial statements.

The total invested assets of \$6.3 billion represents an increase of 1.3% from June 30, 2019. This increase is the net result of funds added to investments, realized and unrealized investment earnings, scheduled payouts, and fund withdrawals.

Endowment management - The endowment assets are invested with The University of North Carolina at Chapel Hill Foundation Investment Fund, Inc. (Chapel Hill Investment Fund or CHIF), further detailed in Note 1A. It is expected that all or substantially all of the assets of the Chapel Hill Investment Fund will be invested in the UNC Investment Fund, LLC (UNC Investment Fund or UNCIF), an investment pool organized by the Chapel Hill Investment Fund to allow the University, along with other constituent institutions of the UNC System and affiliated organizations, to pool investment resources.

Endowment distribution - The CHIF investment objective is to earn a long-term real (i.e. inflation-adjusted) rate of return of approximately 5.5% per year. This objective is intended to support the Chapel Hill Investment Fund's distribution policy providing a stable source of spending support that is sustainable over the long-term while preserving the purchasing power of the invested funds. The distribution rate is determined annually by its Board of Directors, and the distribution rate generally has ranged between 4.0% and 6.0% based on the beginning market value of the Chapel Hill Investment Fund. For the fiscal year ended June 30, 2020, the distribution rate was 4.8%.

Recognizing that severe market declines periodically occur, a University Statutory Endowment policy (established pursuant to *North Carolina General Statute 116-36*) addresses the provisions of the Uniform Prudent Management of Institutional Funds Act (UPMIFA). The policy indicates that campus departments shall examine the endowment-supported activity for the upcoming fiscal year for possible deferment of program expenses, and if appropriate, pursue alternative funding for essential activities and consult with donors regarding other funding options for program support. Invasion of endowment principal is an option of last resort and will only be done consistent with approved limitations to preserve the endowment principal's value.

Endowment performance - For fiscal year 2020, the UNC Investment Fund recorded a 2.3% investment return, compared to the prior year's return of 7.7%. While the UNCIF's fiscal year 2020 return failed to exceed the primary long-term objective of earning a real rate of return of at least 5.5% plus inflation (which amounted to 6.2% in fiscal year 2020), the UNCIF's return did, however, exceed the Strategic Investment Policy Portfolio (SIPP) return of 2.1% in fiscal

year 2020. Moreover, for the year, five of the UNCIF's seven primary asset classes generated positive returns and four exceeded their respective SIPP benchmarks.

Over a longer-term time horizon, UNCIF's five year annualized performance of 6.3% surpassed its SIPP return of 5.6%, but did not meet the primary objective of earning an average annual rate of return of at least 5.5% plus inflation, net of all fees, over a rolling five-year period (which amounted to 7.1% for the period). The UNCIF's 10-year annualized return of 8.5% also surpassed its SIPP return of 8.0% and met the primary return objective of earning an average annual rate of return of at least 5.5% plus inflation, net of all fees, over a rolling ten-year period (which was 7.2% for the period). Over the last three-, five- and ten-year periods, the UNCIF's performance ranked in the top quartile of the BNY Mellon Endowment & Foundation universe.

Capital Assets and Debt Management

Overall, capital assets, net declined \$72.4 million. This decrease was driven by a change in the useful life of the University's ERP system along with a decrease in the amount of capital gifts received during the current year.

A summary of changes in capital assets is disclosed in Note 6. Capital assets, net of accumulated depreciation and amortization, at June 30, 2020, and June 30, 2019, were as follows:

| Capital Assets (Dollars in Thousands) | 2020 | 2019 | Percent Change |
|--|---------------------|---------------------|-------------------|
| Capital Assets: | | | |
| Construction in Progress | \$ 114,740 | \$ 101,562 | 13.0 |
| Land and Other Nondepreciable Assets | 237,295 | 229,289 | 3.5 |
| Buildings, Net | 1,984,676 | 2,011,186 | (1.3) |
| General Infrastructure, Net | 480,212 | 505,842 | (5.1) |
| Machinery, Equipment, and Computer Software, Net | 233,584 | 275,036 | (15.1) |
| Total | \$ 3,050,507 | \$ 3,122,915 | (2.3) |

Capital financing - During fiscal year 2020, the University continued to use its commercial paper program to provide low-cost bridge financing for capital projects with the intent to refinance all, or a portion of the funding, through the issuance of long-term bonds.

During fiscal year 2020, the University issued \$10.0 million in commercial paper debt to fund the Media and Communications Studio project for the Athletics Department, Division of Laboratory Animal Medicine (Division of Comparative Medicine) renovations, the Kenan Labs renovation for Applied Physics, and the Translational Research Building. The balance of commercial paper debt was \$35.0 million at June 30, 2020, and \$25.0 million at June 30, 2019.

Debt management - The University maintains a combination of variable and fixed-rate debt, consistent with its debt management policy. Additional details on rates and maturity can be found in Note 10 – Long-Term Liabilities.

The University's debt policy uses two key ratios to measure debt capacity, financial health, and credit quality. The *debt service to operations ratio* provides an indicator of the University's ability to repay annual principal and interest relative to its overall operating expenses. The *expendable resources to debt ratio* measures unrestricted and restricted expendable net position to funded debt and serves as a relative indicator of financial health, or cushion. The

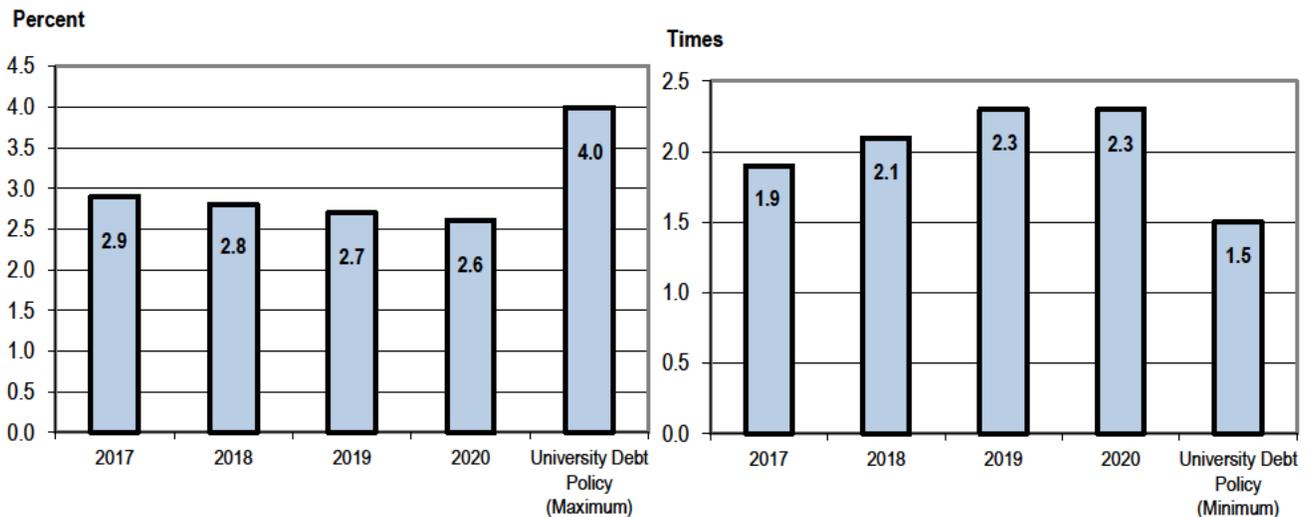
unrestricted net position included in this calculation excludes the impact of the net pension and net OPEB liabilities since these do not have an impact on the University's ability to pay debt. Please see Note 13 for additional information. Each ratio is compared to the University's debt policy standard. At June 30, 2020, the *expendable resources to debt ratio* was 2.3 times, and the *debt service to operations ratio* was 2.6%. Results of both ratios comply with the University's debt policy and indicate healthy coverage of debt requirements.

As a function of its debt management strategy, the University retained a balance of \$261.1 million in unrestricted cash and investments for the purposes of payment of debt related obligations to include certain bullet maturities. No formal board designation, external requirement, or mandatory sinking fund exists to otherwise restrict the use of these funds as of June 30, 2020.

The University continues to maintain its long-term bond ratings of Aaa/AAA/AAA from Moody's Investor Services, Standard & Poor's Global Ratings, and Fitch Ratings, respectively.

DEBT SERVICE TO OPERATIONS

EXPENDABLE RESOURCES TO DEBT



Other Noncurrent Assets and Liabilities

Excluding investments and capital assets discussed above, other noncurrent assets were \$253.8 million at June 30, 2020, and \$251.1 million at June 30, 2019, as restated, reflecting a 1.1% increase, primarily driven by a reclassification from cash surrender value of life insurance caption to investments. Other noncurrent assets include restricted cash and cash equivalents, receivables, notes receivable, investments in joint ventures, beneficial interest in assets held by others, and the net other postemployment benefits asset.

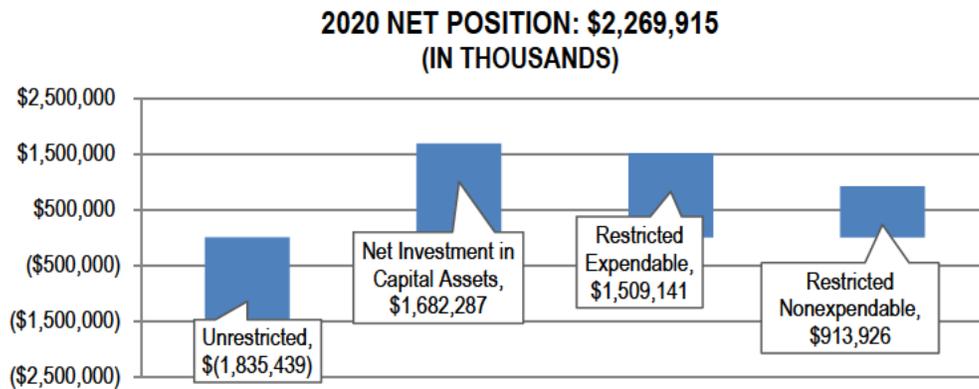
Total noncurrent liabilities were \$8.3 billion at June 30, 2020, and \$7.8 billion at June 30, 2019. These include net OPEB liability of \$2.2 billion at June 30, 2020 and \$1.9 billion at June 30, 2019, as well as funds held in trust for the University's affiliated foundations and other campuses in the UNC System and their affiliates of \$4.1 billion at June 30, 2020, and \$3.9 billion at June 30, 2019. These two items are the primary reasons for the increase. For more information on the change in OPEB amounts, refer to Notes 10 and 17.

Deferred Outflows and Inflows of Resources

Deferred outflows of resources were \$668.6 million at June 30, 2020, and \$537.3 million at June 30, 2019, reflecting a 24.4% increase driven primarily by increases in deferred outflows related to OPEB. This is due to a change in the University's proportionate share of contributions. Deferred inflows of resources were \$1.0 billion at June 30, 2020, and \$1.2 billion at June 30, 2019, reflecting a 21.2% decrease driven primarily by changes in actuarial assumptions for deferred inflows related to OPEB.

Net Position

Net position represents the value of the University's assets and deferred outflows of resources after liabilities and deferred inflows of resources are deducted. The University's net position was steady at \$2.3 billion at June 30, 2020, and \$2.3 billion (as restated) at June 30, 2019.



Condensed Statement of Revenues, Expenses, and Changes in Net Position

The Statement of Revenues, Expenses, and Changes in Net Position presents the University's results of operations. The statements for the fiscal year ended June 30, 2020 and the prior year are summarized as follows:

CONDENSED STATEMENT OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION

(Dollars in Thousands)

| | 2020 | 2019 (as restated) | Percent Change |
|--|---------------------|-----------------------|-------------------|
| Operating Revenues: | | | |
| Student Tuition and Fees, Net | \$ 400,349 | \$ 424,391 | (5.7) |
| Grants and Contracts | 887,343 | 866,141 | 2.4 |
| Sales and Services, Net | 926,106 | 995,348 | (7.0) |
| Other Operating Revenues | 13,195 | 10,128 | 30.3 |
| Total Operating Revenues | 2,226,993 | 2,296,008 | (3.0) |
| Operating Expenses | 3,188,788 | 3,050,681 | 4.5 |
| Operating Loss | (961,795) | (754,673) | 27.4 |
| Nonoperating Revenues (Expenses): | | | |
| State Appropriations | 534,766 | 543,274 | (1.6) |
| Student Financial Aid | 44,316 | 43,302 | 2.3 |
| Noncapital Contributions, Net | 314,963 | 273,851 | 15.0 |
| Investment Income, Net | 95,460 | 206,536 | (53.8) |
| Interest and Fees on Debt | (51,302) | (51,052) | 0.5 |
| Other Nonoperating Revenues (Expenses) | (3,411) | 104,550 | (103.3) |
| Net Nonoperating Revenues | 934,792 | 1,120,461 | (16.6) |
| Income (Loss) Before Other Revenues | (27,003) | 365,788 | (107.4) |
| Capital Appropriations | 1,452 | 4,060 | (64.2) |
| Capital Contributions | 20,629 | 62,823 | (67.2) |
| Additions to Permanent Endowments | 16,743 | 27,540 | (39.2) |
| Increase in Net Position | 11,821 | 460,211 | (97.4) |
| Net Position – July 1 | 2,258,094 | 1,851,379 | 22.0 |
| Restatements | | (53,496) | |
| Net Position – June 30 | \$ 2,269,915 | \$ 2,258,094 | 0.5 |

Fiscal year 2019-2020 revenues and other changes total \$3,255,322 and expenses total \$3,243,501.

Fiscal year 2018-2019 revenues and other changes total \$3,561,944 and expenses total \$3,101,733.

Operating Revenues

Operating revenues represent resources generated by the University in fulfilling its instruction, research, and public service missions. Student tuition and fees (net) for fiscal year 2020 decreased 5.7% over the prior year. This reduction is a result of the global pandemic during Spring 2020 which caused the cancellation of Executive Education programs along with lower enrollment for the Executive MBA program and the online Master in Accountancy program during the fiscal year.

Revenues and expenditures from sponsored projects remained steady in FY 2020 as compared to FY 2019. In terms of research funding, faculty secured \$1.05 billion in sponsored program funding in fiscal year 2020. That is a substantial increase from fiscal year 2019 where we received \$941 million. Consequently, there is still an upward trajectory for overall research activity at UNC. Sponsored project funding comes in the form of grants and contracts awarded

by federal and state agencies, foundations, nonprofit organizations, corporations, and associations, with the federal government providing the majority of the awards. Securing sponsored program funding has become an increasingly competitive endeavor, particularly as federal funding becomes more and more competitive. A key factor in dealing with such competitive pressures is diversifying funding sources and bringing in more awards from foundations and private industry.

The National Institutes of Health (NIH) remained the University's single largest funding source, with awards totaling \$523 million, which was up from the fiscal year 2019 total of \$473 million. NIH's strong and ongoing support reflects positively on the University's health-related professional schools (dentistry, medicine, nursing, pharmacy, and public health), UNC Health Care and its teaching hospitals, and basic and social science units in the College of Arts and Sciences.

The University's other top funders were the National Science Foundation, \$53.2 million; the U.S. Agency for International Development (USAID) at \$36.3 million; and the U.S. Dept. of Education at \$25.1 million. The University's multidisciplinary research centers and institutes within the Vice Chancellor's Division continue to play a growing role in bringing research funding to North Carolina, accounting for approximately \$169.7 million, which is up from the FY19 total of \$146.4 million, and represents approximately 16%, of the total awards in fiscal year 2020.

Sales and services (net) decreased 7.0% in fiscal year 2020 which includes the revenues of campus auxiliary operations such as student housing, campus health services, the utilities system, and parking and transportation, as well as revenues from patient services provided by the professional healthcare clinics. The revenue component of sales and services from the professional healthcare clinics decreased 3.1% as a direct result of the COVID-19 pandemic which caused many clinics to close in March. Also, as students left campus for the semester in March 2020, partial refunds were issued for housing, parking, dining, and spending on campus was curbed.

Operating Expenses

The University's operating expenses were \$3.2 billion for the fiscal year ended June 30, 2020, an increase of 4.5% from the prior year.

| Operating Expenses by Natural Classification (Dollars in Thousands) | | | |
|--|---------------------|---------------------|-------------------|
| | 2020 | 2019 | Percent Change |
| Salaries and Benefits | \$ 1,802,250 | \$ 1,716,743 | 5.0 |
| Supplies and Services | 1,018,615 | 1,013,233 | 0.5 |
| Scholarships and Fellowships | 106,483 | 88,821 | 19.9 |
| Utilities | 81,722 | 89,640 | (8.8) |
| Depreciation/Amortization | 179,718 | 142,244 | 26.3 |
| Total Operating Expenses | \$ 3,188,788 | \$ 3,050,681 | 4.5 |

Salaries and benefits increased 5.0% with additional hiring in the medical area along with increases in pension and OPEB expenses. Scholarships and fellowships increased 19.9% due to new activity along with a reduction in scholarship allowance due to student refunds issued due to COVID-19. Depreciation and amortization increased 26.3% due to a change in the useful life of the University ERP system to ten years.

Nonoperating Revenues and Expenses

State appropriations, noncapital contributions, and investment income (net) are considered nonoperating because they are not generated by the University's principal, ongoing operations. State appropriations are provided to help fund operating expenses.

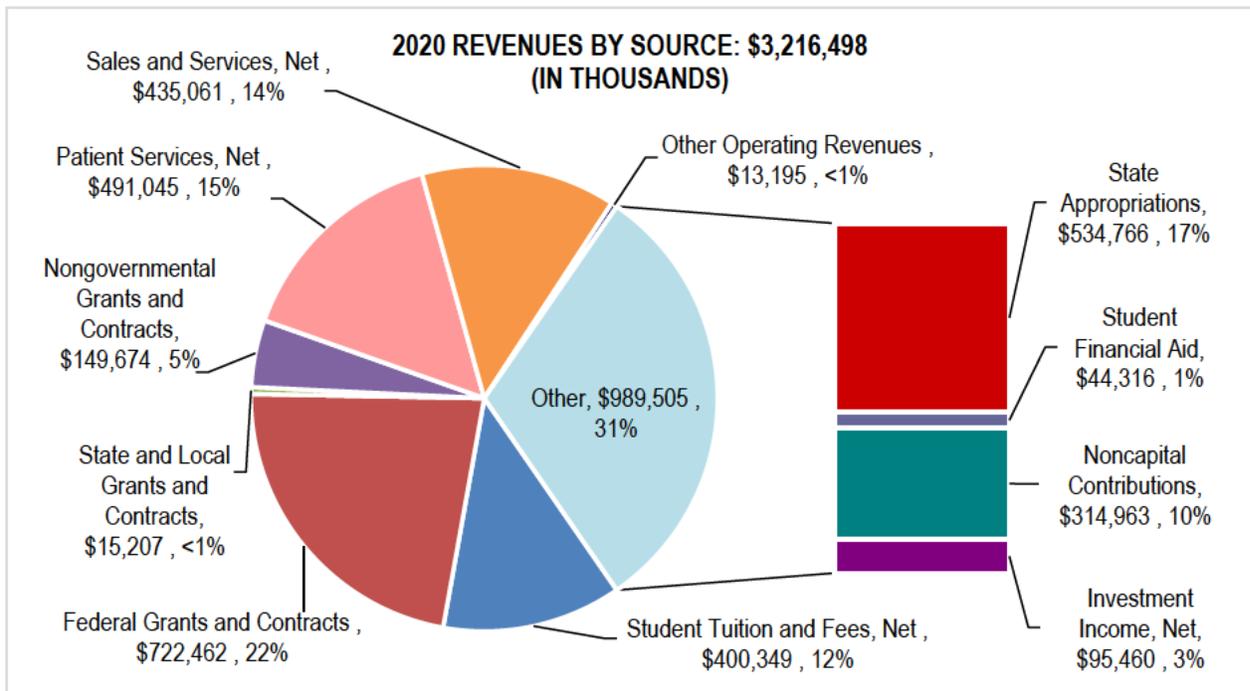
State appropriations revenue totaled \$534.8 million for fiscal year 2020, a decrease of 1.6% from the \$543.3 million received during the prior year. In fiscal year 2019, the University received a higher one time special appropriation including allocations for Area Health Education Centers, legislative state increases and enrollment growth allocation.

Investment returns decreased \$111.1 million, which reflects the market downturn in fiscal year 2020. Refer to the Endowment Performance subsection in the Endowment, Restricted, and Other Investments section for additional discussion and analysis. Investment income includes investment yield and realized and unrealized gains and losses, net of investment management fees.

Other nonoperating revenues decreased \$108.0 million, which directly relates to component unit activity in fiscal year 2019.

Total Operating and Nonoperating Revenues

Operating and nonoperating revenues such as state appropriations, noncapital grants, noncapital gifts, and investment income are used to fund University operations. The following chart illustrates the University's operating and nonoperating revenues, which total \$3.2 billion for fiscal year 2020. As seen in the chart, the University has a diversified revenue base.



Other Changes in Net Position

Capital contributions decreased from \$62.8 million to \$20.6 million in fiscal year 2020. This decrease is driven by gifts from the Educational Foundation to Athletics in the previous fiscal

year including the field hockey stadium, locker room renovations, and Finley fields improvements.

Economic Outlook

The University of North Carolina at Chapel Hill remains a financially sound institution, even as it navigates the challenges wrought by the pandemic, with a robust and diverse revenue base, a healthy endowment, strong tradition of private giving, prudent expense management, high demand for admission, and a commitment to excellence.

After beginning the fall semester with a hybrid approach to in-person and online instruction, the University made the decision to pivot to remote instruction for all undergraduate students. Graduate, professional and health affairs schools were not impacted by this change. Students were able to cancel their residence hall leases without penalty. Residents who had hardships, such as lack of access to reliable internet access, international students or student-athletes had the option to remain on campus. In response to the transition to online instruction, the University focused on expense reduction in auxiliary areas such as athletics, housing, dining, and parking.

The pandemic is expected to continue to have a significant and uncertain impact on the University's operation, but there are plans to transition back to a hybrid on-campus approach in Spring 2021 with different modes of instruction. Residence halls will be filled at single occupancy levels with ample quarantine and isolation rooms throughout campus.

As a result of the COVID-19 pandemic, the University received \$4.5 million from the State of North Carolina COVID-19 Recovery Act to cover increased costs for online coursework, implementation of a digital learning accelerator, providing sanitation and other expenses for ongoing campus operations, and covering necessary eligible expenses for students and employees. These funds must be spent by December 2020. In addition, the University was awarded \$29.0 million to allocate to the NC Policy Collaboratory for the development of countermeasures for COVID-19, a vaccine for COVID-19, community testing initiatives, and other research to address health and economic impacts of COVID-19.

The University received \$8.6 million for the student portion of the Higher Education Emergency Relief Fund (HEERF) to provide emergency financial aid grants to students for expenses related to the disruption of campus operations. In addition, the University received \$8.6 million to cover any costs associated with significant changes to the delivery of instruction due to the Pandemic.

Tuition rates for the ensuing fiscal year 2021 remain consistent with Academic Year 2020 rates for all resident and non-resident students. The University continues to return a portion of tuition revenue to students in the form of need-based aid and combined with other sources, continues to provide financial aid to meet 100% of documented need for undergraduate students.

State appropriations for fiscal year 2021 are budgeted to be \$531.3 million. Initiatives funded by the UNC System such as faculty recruitment and retention, campus scholarship awards, department-based research, and other programs may increase the state appropriations budget during the 2021 fiscal year.

Sponsored awards are a proven and reliable source in support of the University's research mission. The University's research enterprise has doubled in the last decade. It directly

supports more than 10,000 positions statewide. In a 2018 report titled *The Top American Research Universities*, the University was ranked one of the top six public universities. The report, produced by the Center for Measuring University Performance, assessed areas such as research, private support, faculty strength, and advanced training. Strong financial support from North Carolina's elected officials has helped build the infrastructure that enabled this growth, also having strong collaborative ties to Duke University and NC State University in the Research Triangle Park region.

Philanthropic efforts continued to show strength and momentum in fiscal year 2020, with new cash and commitments totaling \$565 million, the University's third best year ever. Over 60,000 alumni and friends contributed to the Campaign for Carolina in support of the University's mission.

Transformative commitments included funds to expand facilities for programs dedicated to sports medicine, sport-related traumatic brain injury and concussion research, and to create the Stallings-Evans Sports Medicine Complex; a \$25 million gift to name the UNC Hussman School of Journalism and Media; a \$15 million gift to UNC Athletics in honor of the late Jim Komen, Sr. to support student-athletes' lifelong success and to name a new football practice facility; and \$20 million raised by a donor challenge to support the Morehead-Cain scholarship program. The University's annual day of giving, GiveUNC, received more than \$7.7 million, its best performance ever.

Donors also gave to special funds established to respond to the COVID-19 pandemic. These benefited students facing financial hardships, UNC Health's personnel on the frontlines, and researchers pursuing vaccines and treatments.

Investment income provides an important distribution of earnings in support of the University's mission. Approximately \$3.6 billion is invested with the UNC Investment Fund. The achievement of investment objectives cannot be realized unless a substantial portion of assets are invested in securities which are subject to market volatility. The UNC Investment Fund does not seek to eliminate risk, but to balance volatility and expected return. This strategy requires investments in different asset classes with proper diversification in order to minimize the probability of loss while generating investment returns sufficient to meet program objectives. As it relates to the Fund, diversification is primarily achieved through the strategic asset allocation at the aggregate level and then augmented by strategies mandated with individual investment managers.

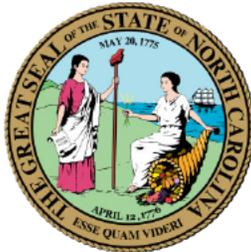
Since asset allocation is the fundamental driver of risk and return, the framework of the UNC Investment Fund has been designed to optimize risk-adjusted returns in support of achieving long-term objectives. The UNC Investment Fund has established ranges or bands for each respective asset class in order to provide a controlled framework for managing risk. Asset allocations are adjusted periodically, in accordance with policy objectives, to reflect market conditions and align assets with planned performance expectations. Asset allocations represent the best estimate at a given measurement date for supporting long-term expected rate of return objectives.

Given the general risks and uncertainties in financial markets, the UNC Investment Fund's strategy tends to focus on capital preservation and downside protection as an overall approach. Many financial asset classes are currently quite expensive on a historical basis suggesting that their forward-looking return profiles may be muted. It is due to these factors that the UNC Investment Fund tends to favor those investment opportunities that provide more modest returns with less volatility rather than more aggressive strategies. Current market

conditions require greater flexibility and prudent investing to preserve and protect capital while incrementally generating return in a risk-efficient manner. Actual investment experience and expectations will vary depending upon the current state environment, time horizon, and other factors.

According to Moody's Investor Service Outlook - Higher Education – US, March 2020, the outlook for higher education has changed to negative from stable due to the negative financial impact of the coronavirus pandemic. Universities will see an immediate revenue decline and face rising expenses. Brand strength and revenue diversity are expected to ease some of the pressures for large research universities. The University's ability to grow the base and mix of its revenue is an important part of its financial and operational strategy. The University's mixture of funding sources includes student tuition, state appropriations, federal, state, and other research awards, philanthropy, sales from clinical and business operations, and investment returns. This diversity of resources provides flexibility for the University to withstand funding fluctuations.

The University faces significant pressure on its ability to manage expenses while maintaining the competitive salaries and benefits needed to attract top faculty. Continued effective leadership and commitment to financial health will fortify the University as it continues to thrive. While it is not possible to predict future results, management is actively pursuing strategies to ensure that the University's financial position will remain strong and steady while remaining dedicated to the University's mission.



FINANCIAL STATEMENTS

The University of North Carolina at Chapel Hill
Statement of Net Position
June 30, 2020

Exhibit A-1
Page 1 of 2

ASSETS

Current Assets:

| | |
|--|----------------|
| Cash and Cash Equivalents | \$ 588,144,959 |
| Restricted Cash and Cash Equivalents | 290,713,383 |
| Short-Term Investments | 343,492,030 |
| Restricted Short-Term Investments | 153,062,306 |
| Receivables, Net (Note 5) | 226,300,955 |
| Due from State of North Carolina Component Units | 84,157,646 |
| Inventories | 21,356,355 |
| Notes Receivable, Net (Note 5) | 5,367,032 |
| Other Assets | 22,349,807 |

| | |
|----------------------|---------------|
| Total Current Assets | 1,734,944,473 |
|----------------------|---------------|

Noncurrent Assets:

| | |
|--|---------------|
| Restricted Cash and Cash Equivalents | 140,890,256 |
| Receivables, Net (Note 5) | 57,535,259 |
| Endowment Investments | 2,415,818,783 |
| Restricted Investments | 3,829,378,385 |
| Other Investments | 33,817,326 |
| Notes Receivable, Net (Note 5) | 33,462,455 |
| Investment in Joint Ventures (Note 22) | 17,455,745 |
| Beneficial Interest in Assets Held by Others | 1,445,302 |
| Net Other Postemployment Benefits Asset | 2,987,331 |
| Capital Assets - Nondepreciable (Note 6) | 352,035,814 |
| Capital Assets - Depreciable, Net (Note 6) | 2,698,471,623 |

| | |
|-------------------------|---------------|
| Total Noncurrent Assets | 9,583,298,279 |
|-------------------------|---------------|

| | |
|--------------|----------------|
| Total Assets | 11,318,242,752 |
|--------------|----------------|

DEFERRED OUTFLOWS OF RESOURCES

| | |
|--|-------------|
| Accumulated Decrease in Fair Value of Hedging Derivatives | 157,129,612 |
| Deferred Loss on Refunding | 9,883,702 |
| Deferred Outflows Related to Pensions | 139,747,208 |
| Deferred Outflows Related to Other Postemployment Benefits (Note 17) | 361,853,511 |

| | |
|--------------------------------------|-------------|
| Total Deferred Outflows of Resources | 668,614,033 |
|--------------------------------------|-------------|

LIABILITIES

Current Liabilities:

| | |
|---|-------------|
| Accounts Payable and Accrued Liabilities (Note 7) | 167,871,534 |
| Due to State of North Carolina Component Units | 15,571,812 |
| Due to University Component Units | 10,972,592 |
| Deposits Payable | 13,283,392 |
| Funds Held for Others | 1,133,012 |
| Unearned Revenue | 128,673,104 |
| Interest Payable | 3,092,818 |
| Obligations Under Reverse Repurchase Agreements | 14,312,000 |
| Short-Term Debt (Note 9) | 35,000,000 |
| Long-Term Liabilities - Current Portion (Note 10) | 96,794,518 |

| | |
|---------------------------|-------------|
| Total Current Liabilities | 486,704,782 |
|---------------------------|-------------|

The University of North Carolina at Chapel Hill
Statement of Net Position
June 30, 2020

Exhibit A-1
Page 2 of 2

| | |
|---|------------------|
| Noncurrent Liabilities: | |
| U. S. Government Grants Refundable | 21,320,811 |
| Funds Held in Trust for Pool Participants | 4,062,395,359 |
| Hedging Derivative Liability | 157,129,612 |
| Long-Term Liabilities, Net (Note 10) | 4,009,613,407 |
| | <hr/> |
| Total Noncurrent Liabilities | 8,250,459,189 |
| | <hr/> |
| Total Liabilities | 8,737,163,971 |
| | <hr/> |
| DEFERRED INFLOWS OF RESOURCES | |
| Deferred Inflows for Irrevocable Split-Interest Agreements | 20,156,298 |
| Deferred Inflows Related to Pensions | 659,085 |
| Deferred Inflows Related to Other Postemployment Benefits (Note 17) | 958,962,763 |
| | <hr/> |
| Total Deferred Inflows of Resources | 979,778,146 |
| | <hr/> |
| NET POSITION | |
| Net Investment in Capital Assets | 1,682,287,193 |
| Restricted: | |
| Nonexpendable | 913,925,586 |
| Expendable | 1,509,141,486 |
| Unrestricted | (1,835,439,597) |
| | <hr/> |
| Total Net Position | \$ 2,269,914,668 |
| | <hr/> <hr/> |

The accompanying notes to the financial statements are an integral part of this statement.

The University of North Carolina at Chapel Hill
Statement of Revenues, Expenses, and
Changes in Net Position
For the Fiscal Year Ended June 30, 2020

Exhibit A-2

OPERATING REVENUES

| | |
|---|----------------|
| Student Tuition and Fees, Net (Note 14) | \$ 400,348,766 |
| Patient Services, Net (Note 14) | 491,044,506 |
| Federal Grants and Contracts | 722,461,787 |
| State and Local Grants and Contracts | 15,207,330 |
| Nongovernmental Grants and Contracts | 149,674,143 |
| Sales and Services, Net (Note 14) | 435,061,393 |
| Interest Earnings on Loans | 7,504,049 |
| Other Operating Revenues | 5,690,411 |
| | <hr/> |
| Total Operating Revenues | 2,226,992,385 |

OPERATING EXPENSES

| | |
|------------------------------|---------------|
| Salaries and Benefits | 1,802,250,379 |
| Supplies and Services | 1,018,614,534 |
| Scholarships and Fellowships | 106,483,355 |
| Utilities | 81,722,034 |
| Depreciation/Amortization | 179,717,871 |
| | <hr/> |
| Total Operating Expenses | 3,188,788,173 |
| | <hr/> |
| Operating Loss | (961,795,788) |

NONOPERATING REVENUES (EXPENSES)

| | |
|---|--------------|
| State Appropriations | 534,765,894 |
| Student Financial Aid | 44,316,294 |
| Federal Aid - COVID-19 | 5,834,424 |
| Noncapital Contributions, Net (Note 14) | 314,962,706 |
| Investment Income (Net of Investment Expense of \$24,885,190) | 95,460,153 |
| Interest and Fees on Debt | (51,302,015) |
| Federal Interest Subsidy on Debt | 2,143,055 |
| Other Nonoperating Expenses | (11,389,104) |
| | <hr/> |
| Net Nonoperating Revenues | 934,791,407 |
| | <hr/> |
| Loss Before Other Revenues | (27,004,381) |
| | <hr/> |
| Capital Appropriations | 1,452,000 |
| Capital Contributions | 20,629,312 |
| Additions to Endowments | 16,743,402 |
| | <hr/> |
| Total Other Revenues | 38,824,714 |
| | <hr/> |
| Increase in Net Position | 11,820,333 |

NET POSITION

| | |
|--|------------------|
| Net Position - July 1, 2019, as Restated (Note 25) | 2,258,094,335 |
| | <hr/> |
| Net Position - June 30, 2020 | \$ 2,269,914,668 |
| | <hr/> <hr/> |

The accompanying notes to the financial statements are an integral part of this statement.

The University of North Carolina at Chapel Hill
Statement of Cash Flows
For the Fiscal Year Ended June 30, 2020

Exhibit A-3
Page 1 of 2

CASH FLOWS FROM OPERATING ACTIVITIES

| | |
|---|------------------|
| Received from Customers | \$ 2,265,111,335 |
| Payments to Employees and Fringe Benefits | (1,873,344,193) |
| Payments to Vendors and Suppliers | (1,111,501,771) |
| Payments for Scholarships and Fellowships | (106,483,355) |
| Loans Issued | (5,367,559) |
| Collection of Loans | 5,787,994 |
| Interest Earned on Loans | 7,951,905 |
| Other Payments | (37,485,208) |
| | <hr/> |
| Net Cash Used by Operating Activities | (855,330,852) |

CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES

| | |
|--|---------------|
| State Appropriations | 534,765,894 |
| Student Financial Aid | 44,316,294 |
| Federal Aid - COVID-19 | 5,834,424 |
| Noncapital Contributions | 330,669,785 |
| Additions to Endowments | 16,743,402 |
| William D. Ford Direct Lending Receipts | 168,533,773 |
| William D. Ford Direct Lending Disbursements | (168,533,773) |
| Related Activity Agency Receipts | 611,124,146 |
| Related Activity Agency Disbursements | (374,030,372) |
| Payments for Annuities and Life Income Payable Under Split-Interest Agreements | (8,513,613) |
| | <hr/> |
| Net Cash Provided by Noncapital Financing Activities | 1,160,909,960 |

CASH FLOWS FROM CAPITAL FINANCING AND RELATED FINANCING ACTIVITIES

| | |
|---|---------------|
| Proceeds from Capital Debt | 10,000,000 |
| Capital Appropriations | 1,452,000 |
| Capital Contributions | 13,564,590 |
| Acquisition and Construction of Capital Assets | (106,852,532) |
| Principal Paid on Capital Debt and Leases | (32,288,219) |
| Interest and Fees Paid on Capital Debt and Leases | (51,322,816) |
| Federal Interest Subsidy on Debt Received | 2,143,055 |
| | <hr/> |
| Net Cash Used by Capital Financing and Related Financing Activities | (163,303,922) |

CASH FLOWS FROM INVESTING ACTIVITIES

| | |
|---|-----------------|
| Proceeds from Sales and Maturities of Investments | 5,129,965,235 |
| Investment Income | 100,429,728 |
| Purchase of Investments and Related Fees | (5,175,126,047) |
| Change in Obligations under Reverse Repurchase Agreements | 3,744,000 |
| | <hr/> |
| Net Cash Provided by Investing Activities | 59,012,916 |

| | |
|---|------------------|
| Net Increase in Cash and Cash Equivalents | 201,288,102 |
| Cash and Cash Equivalents - July 1, 2019 | 818,460,496 |
| | <hr/> |
| Cash and Cash Equivalents - June 30, 2020 | \$ 1,019,748,598 |

The University of North Carolina at Chapel Hill
Statement of Cash Flows
For the Fiscal Year Ended June 30, 2020

Exhibit A-3
Page 2 of 2

**RECONCILIATION OF OPERATING LOSS TO
NET CASH USED BY OPERATING ACTIVITIES**

| | |
|--|-------------------------|
| Operating Loss | \$ (961,795,788) |
| Adjustments to Reconcile Operating Loss to Net Cash Used by Operating Activities: | |
| Depreciation/Amortization Expense | 179,717,871 |
| Allowances and Write-Offs | 574,162 |
| Other Nonoperating Expenses | (11,389,104) |
| Changes in Assets and Deferred Outflows of Resources: | |
| Receivables, Net | 13,989,737 |
| Inventories | (1,466,151) |
| Other Assets | 21,096 |
| Notes Receivable, Net | 314,932 |
| Net Other Postemployment Benefits Asset | (887,159) |
| Deferred Outflows Related to Pensions | 45,540,980 |
| Deferred Outflows Related to Other Postemployment Benefits | (130,054,541) |
| Changes in Liabilities and Deferred Inflows of Resources: | |
| Accounts Payable and Accrued Liabilities | (14,561,881) |
| Unearned Revenue | 13,175,094 |
| Net Pension Liability | 13,102,693 |
| Net Other Postemployment Benefits Liability | 259,171,145 |
| Compensated Absences | 12,457,603 |
| Deposits Payable | (1,407,244) |
| Workers' Compensation Liability | (642,233) |
| U.S. Government Grants Refundable | (5,677,333) |
| Deferred Inflows Related to Pensions | (2,988,228) |
| Deferred Inflows Related to Other Postemployment Benefits | (262,526,503) |
| Net Cash Used by Operating Activities | <u>\$ (855,330,852)</u> |

NONCASH INVESTING, CAPITAL, AND FINANCING ACTIVITIES

| | |
|---|-------------|
| Assets Acquired through the Assumption of a Liability | \$ 374,501 |
| Assets Acquired through a Gift | 7,064,722 |
| Change in Fair Value of Investments | (3,418,179) |
| Loss on Disposal of Capital Assets | (4,274,384) |
| Amortization of Bond Premiums/Discounts | 407,564 |

The accompanying notes to the financial statements are an integral part of this statement.

The University of North Carolina at Chapel Hill Foundations
Statement of Financial Position
June 30, 2020

Exhibit B-1

| | The University of North Carolina at Chapel Hill Arts and Sciences Foundation Incorporated | The Educational Foundation Scholarship Endowment Trust | UNC Health Foundation Incorporated |
|--|--|---|---|
| ASSETS | | | |
| Current Assets: | | | |
| Cash and Cash Equivalents | \$ 29,965,661 | \$ 13,124,276 | \$ 37,806,098 |
| Promises to Give, Net | 35,969,865 | 10,019,027 | 6,654,389 |
| Contribution Receivable from Split-Interest Agreements | | 4,990,552 | |
| Accounts Receivable | 1,202,698 | | |
| Receivable from UNC Foundation | | | 4,154,576 |
| Other Receivables | 2,986,372 | | |
| Other Current Assets | | | 411,444 |
| Total Current Assets | 70,124,596 | 28,133,855 | 49,026,507 |
| Property and Equipment: | | | |
| Capital Assets, Net | 6,216,976 | | 454,814 |
| Other Assets: | | | |
| Investments | 277,794,444 | 254,891,081 | 348,836,643 |
| Promises to Give, Net | | | 6,746,866 |
| Split-Interest Agreements | 2,577,274 | | |
| Cash Surrender Value of Life Insurance | | 1,230,479 | |
| Other Assets | | | 3,319,808 |
| Total Other Assets | 280,371,718 | 256,121,560 | 358,903,317 |
| Total Assets | \$ 356,713,290 | \$ 284,255,415 | \$ 408,384,638 |
| LIABILITIES | | | |
| Current Liabilities: | | | |
| Accounts Payable and Accrued Expenses | \$ 56 | \$ 0 | \$ 1,399,115 |
| Annuities Payable | | 36,677 | |
| Current Portion of Loan Payable | 154,667 | | |
| Total Current Liabilities | 154,723 | 36,677 | 1,399,115 |
| Long-Term Liabilities: | | | |
| Loan Payable | 2,217,071 | | |
| Liabilities Under Charitable Remainder Trusts | | | 55,421 |
| Total Long-Term Liabilities | 2,217,071 | | 55,421 |
| Total Liabilities | 2,371,794 | 36,677 | 1,454,536 |
| NET ASSETS | | | |
| Without Donor Restrictions: | | | |
| Undesignated | | | 8,639,867 |
| Designated by the Board for Endowment | | | 9,930,632 |
| Invested in Property and Equipment | | | 454,814 |
| Total Net Assets Without Donor Restrictions | 61,233,864 | | 19,025,313 |
| With Donor Restrictions | 293,107,632 | 284,218,738 | 387,904,789 |
| Total Net Assets | 354,341,496 | 284,218,738 | 406,930,102 |
| Total Liabilities and Net Assets | \$ 356,713,290 | \$ 284,255,415 | \$ 408,384,638 |

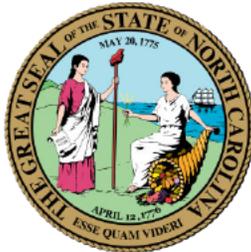
The accompanying notes to the financial statements are an integral part of this statement.

The University of North Carolina at Chapel Hill Foundations
Statement of Activities
For the Fiscal Year Ended June 30, 2020

Exhibit B-2

| | The University of North Carolina at Chapel Hill Arts and Sciences Foundation Incorporated | The Educational Foundation Scholarship Endowment Trust | UNC Health Foundation Incorporated |
|--|--|---|---|
| SUPPORT AND REVENUE | | | |
| Support: | | | |
| Contributions | \$ 24,000,510 | \$ 5,576,292 | \$ 26,484,306 |
| Donated Support | 3,700,015 | | |
| Change in Value of Split-Interest Agreements | (285,954) | | (106,968) |
| Contributed Services | | | 4,251,983 |
| Actuarial Adjustment of Annuities Payable | | 1,818 | |
| Endowment Investment Return Designated for Current Operations | | 11,744,334 | |
| Other Contributions | | 1,618,969 | |
| Total Support | 27,414,571 | 18,941,413 | 30,629,321 |
| Revenue: | | | |
| Interest and Dividends | | | 5,443,320 |
| Net Unrealized and Realized Gains on Investments | 4,045,614 | | 9,661,962 |
| Investment Income | 202,670 | | |
| Other Income | | | 416,159 |
| Total Revenue | 4,248,284 | | 15,521,441 |
| Total Support and Revenue | 31,662,855 | 18,941,413 | 46,150,762 |
| EXPENSES | | | |
| Program Services | 20,405,834 | 12,579,484 | 27,645,774 |
| Supporting Services: | | | |
| Fundraising | 3,164,712 | 242,845 | 5,341,824 |
| Membership Development | | 145,707 | |
| Management, Administrative, and General | 637,390 | 395,267 | 3,726,761 |
| Total Supporting Services | 3,802,102 | 783,819 | 9,068,585 |
| Bad Debt | 31,896 | | |
| Total Expenses and Bad Debt | 24,239,832 | 13,363,303 | 36,714,359 |
| OTHER CHANGES | | | |
| Endowment Investment Return in Excess of Amounts Designated for Current Operations | 24,239,832 | (8,456,364) | 36,714,359 |
| CHANGES IN NET ASSETS | | | |
| Without Donor Restrictions | 2,394,597 | | 1,468,672 |
| With Donor Restrictions | 5,028,426 | (2,878,254) | 7,967,731 |
| Total Changes in Net Assets | 7,423,023 | (2,878,254) | 9,436,403 |
| Net Assets - Beginning of Year, as Restated | 346,918,473 | 287,096,992 | 397,493,699 |
| Net Assets - End of Year | <u>\$ 354,341,496</u> | <u>\$ 284,218,738</u> | <u>\$ 406,930,102</u> |

The accompanying notes to the financial statements are an integral part of this statement.



NOTES TO THE FINANCIAL STATEMENTS

NOTE 1 - SIGNIFICANT ACCOUNTING POLICIES

- A. Financial Reporting Entity** - The concept underlying the definition of the financial reporting entity is that elected officials are accountable to their constituents for their actions. As required by accounting principles generally accepted in the United States of America (GAAP), the financial reporting entity includes both the primary government and all of its component units. An organization other than a primary government serves as a nucleus for a reporting entity when it issues separate financial statements. The University of North Carolina at Chapel Hill (University) is a constituent institution of the multi-campus University of North Carolina System, which is a component unit of the State of North Carolina and an integral part of the State's *Comprehensive Annual Financial Report*.

The accompanying financial statements present all funds belonging to the University and its component units. While the Board of Governors of the University of North Carolina System has ultimate responsibility, the Chancellor, the Board of Trustees, and the Board of Trustees of the Endowment Fund have delegated responsibilities for financial accountability of the University's funds. The University's component units are either blended or discretely presented in the University's financial statements. See below for further discussion of the University's component units. Other related foundations and similar nonprofit corporations for which the University is not financially accountable are not part of the accompanying financial statements.

Blended Component Units - Although legally separate, The University of North Carolina at Chapel Hill Foundation Investment Fund, Inc. (Chapel Hill Investment Fund), UNC Investment Fund, LLC (UNC Investment Fund), UNC Intermediate Pool, LLC (UNC Intermediate Pool), UNC Management Company, Inc. (Management Company), The University of North Carolina at Chapel Hill Foundation, Inc. (UNC-Chapel Hill Foundation), The Kenan-Flagler Business School Foundation (Business School Foundation), WUNC Public Radio, LLC (WUNC), Carolina Research Ventures, LLC (Research Ventures), and HVPV Holdings, LLC (HVPV), component units of the University, are reported as if they were part of the University.

The Chapel Hill Investment Fund was established in January 1997 and is classified as a governmental external investment pool. The fund is governed by a board consisting of eight to 11 ex-officio directors and two to four elected directors. Ex-officio directors include all of the members of the Board of Trustees of the Endowment Fund of the University, which includes the Chair of the University Board of Trustees, the Chancellor, the Vice Chancellor for Finance and Operations, and the Vice Chancellor for University Development. The UNC-Chapel Hill Foundation Board may, in its discretion, elect one or two of its at-large members to the Chapel Hill Investment Fund Board. The ex-officio directors of the Chapel Hill Investment Fund may elect one or two directors by unanimous written consent. The Chapel Hill Investment Fund supports the University by operating an investment fund for certain eligible charitable, nonprofit

foundations, associations, trusts, endowments, and funds that are organized and operated primarily to support the University. Because members of the Board of Directors of the Chapel Hill Investment Fund are officials or appointed by officials of the University and the Chapel Hill Investment Fund's primary purpose is to benefit the University and other organizations operated primarily to support the University, its financial statements have been blended with those of the University.

The UNC Investment Fund was organized by the Chapel Hill Investment Fund to allow the University, the UNC System, other constituent institutions of the UNC System, and certain eligible affiliated foundations, associations, trusts, and endowments that support the University and the UNC System, to pool their resources and invest collectively in investment opportunities identified, structured, and managed by the Management Company. The membership interests are offered only to eligible government entities or tax-exempt organizations that are controlled by or support the University, the UNC System, or other constituent institutions of the UNC System. The Chapel Hill Investment Fund contributed and assigned all of its assets to the UNC Investment Fund effective January 1, 2003, in exchange for its membership interest in the UNC Investment Fund. Upon such contribution and assignment, and in consideration thereof, the UNC Investment Fund has assumed all liabilities and obligations of the Chapel Hill Investment Fund in respect of such contributed assets. At June 30, 2020, the Chapel Hill Investment Fund membership interest was approximately 55% of the UNC Investment Fund total membership interests. Because the Chapel Hill Investment Fund is the organizer and controlling member of the UNC Investment Fund, the financial statements of the UNC Investment Fund have been blended with those of the University.

The UNC Intermediate Pool was organized in May 2013 by the University to make available an intermediate-term investment fund for eligible participants. The University is the controlling member. The UNC Intermediate Pool is classified as a governmental external investment pool. Eligible participants in the fund include not only the University but also the UNC System, its constituent institutions, and/or affiliates and supporting organizations of the UNC System or such constituent institutions. The University has retained the Management Company to serve as the investment manager of the fund. Because the University is the organizer and controlling member of the UNC Intermediate Pool, the financial statements of the UNC Intermediate Pool have been blended with those of the University.

The Management Company is organized and operated exclusively to support the educational mission of the University. The Management Company provides investment management and administrative services to the University, UNC System, and institutions and affiliated tax-exempt organizations, and performs other functions for and generally carries out the purposes of the University. The Management Company is governed by five ex-officio directors and one to three additional directors as fixed or changed from time to time by the board, elected by the ex-officio directors.

The ex-officio directors consist of the Chancellor, the Vice Chancellor for Finance and Operations, the Chair of the University Board of Trustees, the Chair of the Board of Directors of the Chapel Hill Investment Fund, and the President of the Management Company. Because members of the Board of Directors of the Management Company are officials or appointed by officials of the University and the Management Company's primary purpose is to benefit the University and other organizations operated primarily to support the University, its financial statements have been blended with those of the University.

The UNC-Chapel Hill Foundation is governed by a 19-member board consisting of nine ex-officio directors and ten elected directors. Ex-officio directors include the Chair of the University Board of Trustees, the Chancellor, the Vice Chancellor for Finance and Operations, and the Vice Chancellor for University Development (non-voting). In addition, the Board of Trustees elects two ex-officio directors from among its own members as well as three ex-officio directors from the Board of Trustees of the Endowment Fund who have not otherwise been selected. The ten remaining directors are elected as members of the UNC-Chapel Hill Foundation Board of Directors by action of the ex-officio directors. The UNC-Chapel Hill Foundation aids, supports, and promotes teaching, research, and service in the various educational, scientific, scholarly, professional, artistic, and creative endeavors of the University. Because members of the Board of Directors of the UNC-Chapel Hill Foundation are officials or appointed by officials of the University and the UNC-Chapel Hill Foundation's sole purpose is to benefit the University, its financial statements have been blended with those of the University.

On July 1, 2019, the operations of The University of North Carolina at Chapel Hill School of Nursing Foundation, Inc. merged with the UNC-Chapel Hill Foundation. Information regarding the merger, including the reason for the combination, is available in the UNC-Chapel Hill Foundation's financial statements.

The Business School Foundation is governed by a board consisting of four ex-officio directors and four or more elected directors. Ex-officio directors include the Dean of the Kenan-Flagler Business School (Business School), as well as the Business School's Chief Financial Officer, Associate Dean of Academic Affairs, and Associate Dean for MBA Programs. The remaining directors are elected to the Business School Foundation Board of Directors by action of the ex-officio directors. The Business School Foundation aids, promotes, and supports the Kenan-Flagler Business School at the University. Because members of the Board of Directors of the Business School Foundation are officials or appointed by officials of the University, the financial statements of the Business School Foundation have been blended with those of the University.

WUNC is governed by a board consisting of nine members. Seven members of the board, at least two of which are current or previous members of the Board of Trustees of the University, are appointed by the Board of Trustees of the University. The remaining two board members

are the University's Vice Chancellor of Communications and the General Manager of the noncommercial educational radio station WUNC-FM. The purposes of WUNC are to support the University by holding FCC licenses of noncommercial radio stations and operating and conducting programming of those radio stations and NC Public Radio, WUNC-FM, furthering the University's efforts to extend knowledge-based and educational services to the citizens of North Carolina and to enhance the quality of life for the people of the State. Because members of the Board of Directors of WUNC are officials or appointed by officials of the University and the primary purpose of WUNC is to benefit the University, its financial statements have been blended with those of the University.

Research Ventures is governed by a board consisting of six designated members and six at-large members. Designated members include the Chief Financial Officer of the University, the Chief Executive Officer of the UNC Management Company, Inc., two members of the Board of Trustees of the University, and two individuals appointed by the Chief Executive Officer of the UNC Health Care System. Five at-large members are elected by the designated members, and one is appointed by UNC Health Care. Research Ventures supports the educational mission of the University by performing functions to carry out the purposes of the University including creating, acquiring, holding, and disposing of investments on behalf of the University in businesses that commercialize technology and inventions created at the University or through use of University resources. Carolina Research Venture Investment Fund, LLC is a component unit of Research Ventures and is included in its financial statements. Because a majority number of the Board of Directors are officials or appointed by officials of the University, and Research Ventures' primary purpose is to benefit the University, the financial statements of Research Ventures have been blended with those of the University.

HVPV is governed by the University as a sole member of HVPV. All decisions with respect to the management of the business and affairs of HVPV are made by the University. The University directs, manages, and controls the business of HVPV. HVPV was formed for the sole benefit of the University and its purposes include holding an investment in limited partnership interests of a venture capital partner and promoting the business thereof. Because the University has complete authority to make decisions, and HVPV's primary purpose is to benefit the University, the financial statements of HVPV have been blended with those of the University.

Separate financial statements for the University's blended component units may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

Condensed combining information regarding blended component units is provided in Note 23.

Discretely Presented Component Units - UNC Health Foundation, Inc. (UNC Health Foundation), previously known as The Medical Foundation

of North Carolina, Inc., The University of North Carolina at Chapel Hill Arts and Sciences Foundation, Inc. (Arts and Sciences Foundation), and The Educational Foundation Scholarship Endowment Trust (Educational Foundation Trust) are legally separate nonprofit, tax-exempt corporations and are reported as discretely presented component units based on the nature and significance of their relationship to the University.

The UNC Health Foundation is governed by a board of up to 33 elected directors. The board also includes five ex-officio directors. The Dean of the UNC School of Medicine and CEO of UNC Health Care, the Vice Chancellor for University Development and the Associate Dean for Medical Alumni Affairs (UNC School of Medicine) all have voting rights. The President of UNC Health Foundation and the President of UNC Hospitals do not. Historically, the University's School of Medicine has been the major recipient of financial support from the UNC Health Foundation rather than UNC Hospitals. Although the University does not control the timing or amount of receipts from the UNC Health Foundation, the majority of resources or income that the UNC Health Foundation holds and invests is restricted to the University by the donors. Because these restricted resources held by the Medical Foundation can only be used by, or for the benefit of the University, the UNC Health Foundation is considered a component unit of the University.

The Arts and Sciences Foundation is governed by a board consisting of five ex-officio directors, 30 elected directors and such number of emeritus directors determined from time to time by the Board of Directors. Staggered terms are set for the elected directors by the Board of Directors in office at the time of election. The purpose of the Arts and Sciences Foundation is to promote and support the University's College of Arts and Sciences. Although the University does not control the timing or amount of receipts from the Arts and Sciences Foundation, the majority of resources or income that the Arts and Sciences Foundation holds and invests is restricted to the activities of the University by the donors. Because these restricted resources held by the Arts and Sciences Foundation can only be used by, or for the benefit of the University, the Arts and Sciences Foundation is considered a component unit of the University.

The Educational Foundation Trust is governed by The Educational Foundation Scholarship Endowment Trust Agreement which provides that The Educational Foundation, Inc. appoints and designates the voting members of the Investment Committee as Trustees of the Trust. The Educational Foundation Trust operates solely to assist the University in providing financial assistance to students at the University. On an annual basis, the Trustees of the Educational Foundation Trust appropriates a portion of the net appreciation on its assets to The Educational Foundation, Inc. in its capacity as agent for the Educational Foundation Trust. The distribution from the Educational Foundation Trust to The Educational Foundation, Inc. is then forwarded by The Educational Foundation, Inc. to the University to provide financial assistance to students at the University. Although the University does not control the timing or amount of receipts from the Educational Foundation Trust, the

majority of the contributions that the Educational Foundation Trust receives and invests is restricted to the students of the University by the donors. Because these restricted resources held by the Educational Foundation Trust can only be used for the benefit of the students of the University, the Educational Foundation Trust is considered a component unit of the University.

The UNC Health Foundation, Arts and Sciences Foundation, and Educational Foundation Trust are private, nonprofit organizations that report their financial results under the Financial Accounting Standards Board (FASB) Codification. As such, certain revenue recognition criteria and presentation features are different from Governmental Accounting Standards Board (GASB) revenue recognition criteria and presentation features. No modifications have been made to the financial information in the University's financial statements for these differences.

During the year ended June 30, 2020, the UNC Health Foundation, Arts and Sciences Foundation, and Educational Foundation Trust distributed \$51,431,021 to the University for both restricted and unrestricted purposes. Complete financial statements for the UNC Health Foundation, Arts and Sciences Foundation, and Educational Foundation Trust can be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

- B. Basis of Presentation** - The accompanying financial statements are presented in accordance with accounting principles generally accepted in the United States of America as prescribed by the GASB.

Pursuant to the provisions of GASB Statement No. 34, *Basic Financial Statements - and Management's Discussion and Analysis - for State and Local Governments*, as amended by GASB Statement No. 35, *Basic Financial Statements - and Management's Discussion and Analysis - for Public Colleges and Universities*, the full scope of the University's activities is considered to be a single business-type activity and accordingly, is reported within a single column in the basic financial statements.

- C. Basis of Accounting** - The financial statements of the University have been prepared using the economic resource measurement focus and the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned, and expenses are recorded when an obligation has been incurred, regardless of the timing of the cash flows.

Nonexchange transactions, in which the University receives (or gives) value without directly giving (or receiving) equal value in exchange, include state appropriations, certain grants, and donations. Revenues are recognized, net of estimated uncollectible amounts, as soon as all eligibility requirements imposed by the provider have been met, if probable of collection.

- D. Cash and Cash Equivalents** - This classification includes undeposited receipts, petty cash, cash on deposit with private bank accounts, cash on

deposit with fiscal agents, and deposits held by the State Treasurer in the Short-Term Investment Fund (STIF). The STIF maintained by the State Treasurer has the general characteristics of a demand deposit account in that participants may deposit and withdraw cash at any time without prior notice or penalty.

- E. Investments** - To the extent available, investments are recorded at fair value based on quoted market prices in active markets on a trade-date basis. Additional information regarding the fair value measurement of investments is disclosed in Note 3. Investments for which a readily determinable fair value does not exist include investments in hedge funds and limited partnerships. These investments are carried at net asset value (NAV) per share as provided by the respective fund managers of these investments or third party administrators. The Management Company reviews and evaluates the values provided by the fund managers as well as the valuation methods and assumptions used in determining the NAV of such investments. Because of the inherent uncertainty in the use of estimates, values that are based on estimates may differ from the values that would have been used had a ready market existed for the investments. The net change in the value of investments is recognized as a component of investment income.

Short-term investments include marketable securities representing the investment of cash that is available for current operations. A majority of this available cash is invested in the University's Temporary Pool, a governmental external investment pool.

Endowment investments include the principal amount of gifts and bequests that, according to donor restrictions, must be held in perpetuity or for a specified period of time, along with any accumulated investment earnings on such amounts. Further, endowment investments also include amounts internally designated by the University for investment in an endowment capacity (i.e. quasi-endowments), along with accumulated investment earnings on such amounts. Land and other real estate held as investments by endowments are reported at fair value, consistent with how investments are generally reported.

- F. Receivables** - Receivables consist of tuition and fees charged to students and charges for auxiliary enterprises' sales and services, as well as charges to patients for services provided by the UNC Faculty Physicians and the Dental Faculty Practices. Receivables also include amounts due from the federal government, state and local governments, and private sources in connection with reimbursement of allowable expenditures made pursuant to contracts and grants, and pledges that are verifiable, measurable, and expected to be collected and available for expenditures for which the resource provider's conditions have been satisfied. Receivables are recorded net of estimated uncollectible amounts.
- G. Inventories** - Inventories, consisting of expendable supplies, postage, fuel held for consumption, and other merchandise for resale, are valued at cost or average cost.

- H. **Capital Assets** - Capital assets are stated at cost at date of acquisition or acquisition value at date of donation in the case of gifts. Donated capital assets acquired prior to July 1, 2015 are stated at fair value as of the date of donation. The value of assets constructed includes all material direct and indirect construction costs.

The University capitalizes assets that have a value or cost of \$5,000 or greater at the date of acquisition and an estimated useful life of more than one year except for internally generated software which is capitalized when the value or cost is \$1,000,000 or greater and other intangible assets which are capitalized when the value or cost is \$100,000 or greater.

Depreciation and amortization are computed using the straight-line method over the estimated useful lives of the assets in the following manner:

| <u>Asset Class</u> | <u>Estimated Useful Life</u> |
|-------------------------|------------------------------|
| Buildings | 10-75 years |
| Machinery and Equipment | 3-30 years |
| General Infrastructure | 10-75 years |
| Computer Software | 3-20 years |

The University's historic property, artwork, and literary collections are capitalized at cost, acquisition value, or fair value at the date of donation. These collections are considered inexhaustible and therefore are not depreciated.

- I. **Restricted Assets** - Certain resources are reported as restricted assets because restrictions on asset use change the nature or normal understanding of the availability of the asset. Resources that are not available for current operations and are reported as restricted include resources restricted for the acquisition or construction of capital assets, resources legally segregated for the payment of principal and interest as required by debt covenants, unspent debt proceeds, and endowment and other restricted investments.
- J. **Funds Held in Trust for Pool Participants** - Funds held in trust for pool participants represent the external portion of the University's governmental external investment pools more fully described in Note 2. The assets associated with this liability are included in restricted investments, cash, and other similar asset accounts.
- K. **Noncurrent Long-Term Liabilities** - Noncurrent long-term liabilities include principal amounts of long-term debt and other long-term liabilities that will not be paid within the next fiscal year. Debt is defined as a liability that arises from a contractual obligation to pay cash (or other assets that may be used in lieu of cash) in one or more payments to settle an amount that is fixed at the date the contractual obligation is established. Long-term debt includes: revenue bonds payable, bonds from direct placements, notes from direct borrowings, and capital leases payable. Other long-term

liabilities include: compensated absences, annuities and life income payable, net pension liability, net other postemployment benefits (OPEB) liability, and workers' compensation.

Revenue bonds payable are reported net of unamortized premiums or discounts. The University amortizes bond premiums/discounts over the life of the bonds using the straight-line method that approximates the effective interest method. Deferred gains and losses on refundings are amortized over the life of the old debt or new debt (whichever is shorter) using the straight-line method, and are aggregated as deferred outflows of resources or deferred inflows of resources on the Statement of Net Position. Issuance costs are expensed in the reporting period in which they are incurred.

The net pension liability represents the University's proportionate share of the collective net pension liability reported in the State of North Carolina's 2019 *Comprehensive Annual Financial Report*. This liability represents the University's portion of the collective total pension liability less the fiduciary net position of the Teachers' and State Employees' Retirement System. See Note 16 for further information regarding the University's policies for recognizing liabilities, expenses, deferred outflows of resources, and deferred inflows of resources related to pensions.

The net OPEB liability represents the University's proportionate share of the collective net OPEB liability reported in the State of North Carolina's 2019 *Comprehensive Annual Financial Report*. This liability represents the University's portion of the collective total OPEB liability less the fiduciary net position of the Retiree Health Benefit Fund. See Note 17 for further information regarding the University's policies for recognizing liabilities, expenses, deferred outflows of resources, and deferred inflows of resources related to OPEB.

- L. Compensated Absences** - The University's policy is to record the cost of vacation leave when earned. The policy provides for a maximum accumulation of unused vacation leave of 30 days which can be carried forward each January 1 or for which an employee can be paid upon termination of employment. When classifying compensated absences into current and noncurrent, leave is considered taken using a last-in, first-out (LIFO) method. Also, any accumulated vacation leave in excess of 30 days at year-end is converted to sick leave. Under this policy, the accumulated vacation leave for each employee at June 30 equals the leave carried forward at the previous December 31 plus the leave earned, less the leave taken between January 1 and June 30.

In addition to the vacation leave described above, compensated absences include the accumulated unused portion of the special annual leave bonuses awarded by the North Carolina General Assembly. The bonus leave balance on December 31 is retained by employees and transferred into the next calendar year. It is not subject to the limitation on annual leave carried forward described above and is not subject to conversion to sick leave.

There is no liability for unpaid accumulated sick leave because the University has no obligation to pay sick leave upon termination or retirement. However, additional service credit for retirement pension benefits is given for accumulated sick leave upon retirement.

- M. Deferred Outflows/Inflows of Resources** - In addition to assets, the Statement of Net Position reports a separate section for deferred outflows of resources. This separate financial statement element, deferred outflows of resources, represents a consumption of net position that applies to a future period(s) and so will not be recognized as an outflow of resources (expense) until then. The University has the following items that qualify for reporting in this category: the accumulated decrease in fair value of hedging derivatives, deferred loss on refunding, deferred outflows related to pensions, and deferred outflows related to other postemployment benefits.

In addition to liabilities, the Statement of Net Position reports a separate section for deferred inflows of resources. This separate financial statement element, deferred inflows of resources, represents an acquisition of net position that applies to a future period(s) and so will not be recognized as an inflow of resources (revenue) until then. The University has the following items that qualify for reporting in this category: deferred inflows for irrevocable split-interest agreements, deferred inflows related to pensions, and deferred inflows related to other postemployment benefits.

- N. Net Position** - The University's net position is classified as follows:

Net Investment in Capital Assets - This represents the University's total investment in capital assets, net of outstanding liabilities related to those capital assets. To the extent debt has been incurred but not yet expended for capital assets, such amounts are not included as a component of net investment in capital assets. Additionally, deferred outflows of resources and deferred inflows of resources that are attributable to the acquisition, construction, or improvement of capital assets or related debt are also included in this component of net position.

Restricted Net Position - Nonexpendable - Nonexpendable restricted net position includes endowments and similar type assets whose use is limited by donors or other outside sources, and, as a condition of the gift, the principal is to be maintained in perpetuity.

Restricted Net Position - Expendable - Expendable restricted net position includes resources for which the University is legally or contractually obligated to spend in accordance with restrictions imposed by external parties.

Unrestricted Net Position - Unrestricted net position includes resources derived from student tuition and fees, sales and services, unrestricted gifts, royalties, and interest income. It also includes the net position of accrued employee benefits such as compensated absences, workers' compensation, pension plans, and other postemployment benefits.

Restricted and unrestricted resources are tracked using a fund accounting system and are spent in accordance with established fund authorities. Fund authorities provide rules for the fund activity and are separately established for restricted and unrestricted activities. When both restricted and unrestricted funds are available for expenditure, the decision for funding is transactional based within the departmental management system in place at the University. For projects funded by tax-exempt debt proceeds and other sources, the debt proceeds are always used first. Both restricted and unrestricted net position include consideration of deferred outflows of resources and deferred inflows of resources. See Note 13 for further information regarding deferred outflows of resources and deferred inflows of resources that had a significant effect on unrestricted net position.

- O. Scholarship Discounts** - Student tuition and fees revenues and certain other revenues from University charges are reported net of scholarship discounts in the accompanying Statement of Revenues, Expenses, and Changes in Net Position. The scholarship discount is the difference between the actual charge for goods and services provided by the University and the amount that is paid by students or by third parties on the students' behalf. Student financial assistance grants, such as Pell grants, and other federal, state, or nongovernmental programs, are recorded as nonoperating revenues in the accompanying Statement of Revenues, Expenses, and Changes in Net Position. To the extent that revenues from these programs are used to satisfy tuition, fees, and other charges, the University has recorded a scholarship discount.
- P. Revenue and Expense Recognition** - The University classifies its revenues and expenses as operating or nonoperating in the accompanying Statement of Revenues, Expenses, and Changes in Net Position. Operating revenues and expenses generally result from providing services and producing and delivering goods in connection with the University's principal ongoing operations. Operating revenues include activities that have characteristics of exchange transactions, such as (1) student tuition and fees, (2) sales and services of auxiliary enterprises, (3) certain federal, state, and local grants and contracts that are essentially contracts for services, and (4) interest earned on loans. Operating expenses are all expense transactions incurred other than those related to capital and noncapital financing or investing activities as defined by GASB Statement No. 9, *Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting*.

Nonoperating revenues include activities that have the characteristics of nonexchange transactions. Revenues from nonexchange transactions that represent subsidies or gifts to the University, as well as investment income, are considered nonoperating since these are either investing, capital, or noncapital financing activities. Capital contributions are presented separately after nonoperating revenues and expenses.

- Q. Internal Sales Activities** - Certain institutional auxiliary operations provide goods and services to University departments, as well as to its customers.

These institutional auxiliary operations include activities such as utility services, telecommunications, central stores, printing and copy centers, postal services, and repairs and maintenance services. In addition, the University has other miscellaneous sales and service units that operated either on a reimbursement or charge basis. All internal sales activities to University departments from auxiliary operations and sales and service units have been eliminated in the accompanying financial statements. These eliminations are recorded by removing the revenue and expense in the auxiliary operations and sales and service units and, if significant, allocating any residual balances to those departments receiving the goods and services during the year.

NOTE 2 - DEPOSITS AND INVESTMENTS

- A. Deposits** - Unless specifically exempt, the University is required by *North Carolina General Statute 147-77* to deposit moneys received with the State Treasurer or with a depository institution in the name of the State Treasurer. However, the University of North Carolina Board of Governors, pursuant to G.S. 116-36.1, may authorize the University to deposit its institutional trust funds in interest-bearing accounts and other investments authorized by the Board of Governors, without regard to any statute or rule of law relating to the investment of funds by fiduciaries. Although specifically exempted, the University may voluntarily deposit institutional trust funds, endowment funds, special funds, revenue bond proceeds, debt service funds, and funds received for services rendered by health care professionals with the State Treasurer. Special funds consist of moneys for intercollegiate athletics and agency funds held directly by the University.

At June 30, 2020, the amount shown on the Statement of Net Position as cash and cash equivalents includes \$785,220,225, which represents the University's equity position in the State Treasurer's Short-Term Investment Fund (STIF). The STIF (a portfolio within the State Treasurer's Investment Pool, an external investment pool that is not registered with the Securities and Exchange Commission or subject to any other regulatory oversight and does not have a credit rating) had a weighted average maturity of 1.3 years as of June 30, 2020. Assets and shares of the STIF are valued at fair value. Deposit and investment risks associated with the State Treasurer's Investment Pool (which includes the State Treasurer's STIF) are included in the North Carolina Department of State Treasurer Investment Programs' separately issued audit report. This separately issued report can be obtained from the Department of State Treasurer, 3200 Atlantic Avenue, Raleigh, NC 27604 or can be accessed from the Department of State Treasurer's website at <https://www.nctreasurer.com/> in the Audited Financial Statements section.

Cash on hand at June 30, 2020 was \$555,081. The carrying amount of the University's deposits not with the State Treasurer was \$233,973,292, and the bank balance was \$421,216,373. Custodial credit risk is the risk that in the event of a bank failure, the University's deposits may not be returned

to it. The University does not have a deposit policy for custodial credit risk. As of June 30, 2020, \$163,062,606 of the University's bank balance was exposed to custodial credit risk as uninsured and uncollateralized.

B. Investments

University - The University is authorized by the University of North Carolina Board of Governors pursuant to G.S. 116-36.2 and Section 600.2.4 of the Policy Manual of the University of North Carolina to invest its special funds and funds received for services rendered by health care professionals in the same manner as the State Treasurer is required to invest, as discussed below.

G.S. 147-69.1(c), applicable to the State's General Fund, and G.S. 147-69.2, applicable to institutional trust funds, authorize the State Treasurer to invest in the following: obligations of or fully guaranteed by the United States; obligations of certain federal agencies; repurchase agreements; obligations of the State of North Carolina; certificates of deposit and other deposit accounts of specified financial institutions; prime quality commercial paper; asset-backed securities with specified ratings, specified bills of exchange or time drafts, and corporate bonds/notes with specified ratings; general obligations of other states; general obligations of North Carolina local governments; and obligations of certain entities with specified ratings.

In accordance with the bond resolutions, bond proceeds and debt service funds are invested in obligations that will by their terms mature on or before the date funds are expected to be required for expenditure or withdrawal.

G.S. 116-36(e) provides that the trustees of the Endowment Fund shall be responsible for the prudent investment of the Fund in the exercise of their sound discretion, without regard to any statute or rule of law relating to the investment of funds by fiduciaries but in compliance with any lawful condition placed by the donor upon that part of the Endowment Fund to be invested.

Investments of the University's component units, UNC-Chapel Hill Foundation, UNC Management Company, Chapel Hill Investment Fund, UNC Intermediate Pool, UNC Investment Fund, and Business School Foundation, are subject to and restricted by G.S. 36E "Uniform Prudent Management of Institutional Funds Act" (UPMIFA) and any requirements placed on them by contract or donor agreements.

Investments of various funds may be pooled unless prohibited by statute or by terms of the gift or contract. The University utilizes investment pools to manage investments and distribute investment income.

Investments are subject to the following risks as defined by GASB Statement No. 40, *Deposit and Investment Risk Disclosures – An Amendment of GASB Statement No. 3*.

Interest Rate Risk: Interest rate risk is the risk the University may face should interest rate variances affect the value of investments. The University does not have a formal policy that addresses interest rate risk.

Credit Risk: Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The University does not have a formal policy that addresses credit risk.

Foreign Currency Risk: Foreign currency risk is the risk that changes in exchange rates will adversely affect the value of an investment. The University does not have a formal policy for foreign currency risk.

Temporary Investment Pool (Temporary Pool) - The Temporary Pool is a fixed income portfolio managed by the Management Company and Novant Asset Management, LLC. It operates in conjunction with the University's Bank of America disbursing account for all special funds, funds received for services rendered by health care professionals, and endowment revenue funds (internal portion) and funds of affiliated foundations (external portion). Because of the participation in the Temporary Pool by affiliated foundations, it is considered a governmental external investment pool. The external portion of the Temporary Pool is presented in the accompanying financial statements as Funds Held in Trust for Pool Participants. Fund ownership of the University's Temporary Pool is measured using the unit value method. Under this method, participant activity is recorded on a cost basis in the UNC-Chapel Hill Money Market System. This is the official means of recording activity in the Temporary Pool. The Temporary Pool is not registered with the SEC and is not subject to any formal oversight other than that provided by the University Board of Trustees. The University has not provided legally binding guarantees during the period to support the value of the pool's investments. There are no involuntary participants in the Temporary Pool.

The Bank of New York Mellon is the custodian for the Temporary Pool and provides the University with monthly statements defining income and fair value information. Investments of the Temporary Pool are generally highly liquid and include (but are not limited to) U.S. government securities, collateralized mortgage obligations, asset-backed securities, corporate bonds, and mutual funds. The University has elected to invest a portion of the Temporary Pool assets in the Chapel Hill Investment Fund.

Participants' cash balances are automatically invested in the Temporary Pool. Income distribution is calculated based on the Average Daily Balance (ADB) and distributed monthly. The rate earned by an account is dependent upon its account classification. The rates are set by policy and approved by the Vice Chancellor for Finance and Operations.

The following table presents the Temporary Pool investments by type and investments subject to interest rate risk at June 30, 2020:

Temporary Pool Investments

| Investment Type | Amount | Investment Maturities (in Years) | | | |
|---|-----------------------|----------------------------------|-----------------------|---------------------|----------------------|
| | | Less Than 1 | 1 to 5 | 6 to 10 | More than 10 |
| Debt Securities | | | | | |
| U.S. Treasuries | \$ 91,759,750 | \$ 15,233,250 | \$ 76,526,500 | \$ 0 | \$ 0 |
| U.S. Agencies | 61,717,898 | 868,199 | 26,034,005 | 2,629,519 | 32,186,175 |
| Collateralized Mortgage Obligations | 1,378,233 | | | | 1,378,233 |
| Asset-Backed Securities | 1,008,334 | | | | 1,008,334 |
| Money Market Mutual Funds | 4,824,346 | 4,824,346 | | | |
| Total Debt Securities | 160,688,561 | \$ 20,925,795 | \$ 102,560,505 | \$ 2,629,519 | \$ 34,572,742 |
| Other Securities | | | | | |
| Domestic Stocks | 30,000 | | | | |
| Total Temporary Pool Investments | \$ 160,718,561 | | | | |

The University has elected to invest \$125,492,823 of Temporary Pool assets in the Chapel Hill Investment Fund. The disclosures for these investments are not included in the preceding table. Rather, the disclosures for this portion of the Temporary Investment Pool are included in those for the Chapel Hill Investment Fund.

At June 30, 2020, investments in the Temporary Pool had the following credit quality distribution for securities with credit exposure:

| | Amount | AAA Aaa | AA Aa | A | BBB Baa | BB/Ba and below | Unrated |
|-------------------------------------|----------------------|---------------------|----------------------|------------------|-------------------|-----------------------|---------------------|
| U.S. Agencies | \$ 61,717,898 | \$ 0 | \$ 61,717,898 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Collateralized Mortgage Obligations | 1,378,233 | | 17,572 | 40,983 | 192,047 | 232,926 | 894,705 |
| Asset-backed Securities | 1,008,334 | | | | | 524,228 | 484,106 |
| Money Market Mutual Funds | 4,824,346 | 4,824,346 | | | | | |
| Totals | \$ 68,928,811 | \$ 4,824,346 | \$ 61,735,470 | \$ 40,983 | \$ 192,047 | \$ 757,154 | \$ 1,378,811 |

Rating Agency: Moody's/Standard & Poor's/Fitch (lowest rating reported above)

Since a separate annual financial report of the Temporary Investment Pool is not issued, the following additional disclosures are being provided in the University's financial statements.

The Temporary Investment Pool's Statement of Net Position and Statement of Operations and Changes in Net Position as of and for the period ended June 30, 2020, are as follows:

Statement of Net Position
June 30, 2020

| | <u>Amount</u> |
|--|-----------------------|
| Assets: | |
| State Treasurer Investment Fund | \$ 55,000,047 |
| Accrued Investment Income | 460,441 |
| Chapel Hill Investment Fund | 125,492,823 |
| Investments | <u>160,718,561</u> |
| Total Assets | <u>341,671,872</u> |
| Total Liabilities | <u>0</u> |
| Net Position As Held in Trust for All Pool Participants: | |
| Internal Portion | 232,336,873 |
| External Portion | <u>109,334,999</u> |
| Total Net Position | <u>\$ 341,671,872</u> |

Statement of Operations and Changes in Net Position
June 30, 2020

| | <u>Amount</u> |
|---|-----------------------|
| Increase in Net Position from Operations: | |
| Revenues: | |
| Investment Income | \$ 8,069,361 |
| Expenses: | |
| Investment Management | <u>(22,552)</u> |
| Net Increase in Net Position Resulting from Operations | 8,046,809 |
| Distributions to Participants: | |
| Distributions Paid and Payable | (8,046,809) |
| Share Transactions: | |
| Net Share Purchases | <u>(226,963,242)</u> |
| Total Decrease in Net Position | (226,963,242) |
| Net Position: | |
| Beginning of Year | <u>568,635,114</u> |
| End of Year | <u>\$ 341,671,872</u> |

UNC Intermediate Pool, LLC - The UNC Intermediate Pool, LLC (UNC Intermediate Pool) was organized in May 2013 by the University to make available an intermediate-term investment fund for eligible participants with the University being the controlling member. The UNC Intermediate Pool is classified as a governmental external investment pool. Eligible participants in the pool include not only the University but also the University of North Carolina System (UNC System), its constituent institutions, and/or affiliates and supporting organizations of the UNC System or such constituent institutions. The University has retained the Management Company to serve as the investment manager of the pool.

Ownership of the UNC Intermediate Pool is measured using the unit value method. Under this method, each participant's investment balance is determined on a fair value basis. The UNC Intermediate Pool is not registered with the SEC and is not subject to any formal oversight beyond that provided by UNC Management Company as well as an Oversight Committee of University employees appointed by the Chancellor of the University. The University has not provided legally binding guarantees during the period to support the value of the pool's investments. There are no involuntary participants in the UNC Intermediate Pool. The audited financial statements for the UNC Intermediate Pool, LLC may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

The Bank of New York Mellon is the custodian for the UNC Intermediate Pool and provides the University with monthly statements providing income and fair value information. UNC Intermediate Pool investments are comprised of (but not limited to) shares in mutual funds, money market accounts, and the UNC Investment Fund.

As of June 30, 2020, the University's membership interest was approximately 54% of the UNC Intermediate Pool's total membership interests. An affiliated organization, not included in the University's reporting entity, held the remaining 46% membership interest. This external portion of the UNC Intermediate Pool is presented in the accompanying financial statements as Funds Held in Trust for Pool Participants.

The following table presents the UNC Intermediate Pool investments by type and investments subject to interest rate risk at June 30, 2020:

UNC Intermediate Pool

| Investment Type | Amount | Investment Maturities (in Years) | | | |
|--|-----------------------|----------------------------------|-----------------------|-----------------------|-----------------------|
| | | Less Than 1 | 1 to 5 | 6 to 10 | More than 10 |
| Debt Securities | | | | | |
| U.S. Treasuries | \$ 5,640,850 | \$ 0 | \$ 0 | \$ 5,640,850 | \$ 0 |
| U.S. Agencies | 14,468,553 | | | | 14,468,553 |
| Mortgage Pass Throughs | 1,993,694 | | | | 1,993,694 |
| Collateralized Mortgage Obligations | 47,514,690 | | | 11,804,091 | 35,710,599 |
| Asset-Backed Securities | 45,814,565 | | | 3,920,865 | 41,893,700 |
| Debt Mutual Funds | 242,191,733 | 14,111,159 | 108,219,149 | 84,171,539 | 35,689,886 |
| Money Market Mutual Funds | 34,782,926 | 34,782,926 | | | |
| Domestic Corporate Bonds | 6,572,376 | 50,200 | | 6,401,720 | 120,456 |
| Foreign Corporate Bonds | 9,580,289 | | | 7,965,055 | 1,615,234 |
| Foreign Government Bonds | 3,046,332 | | | 1,856,060 | 1,190,272 |
| Total Debt Securities | 411,606,008 | \$ 48,944,285 | \$ 108,219,149 | \$ 121,760,180 | \$ 132,682,394 |
| Other Securities | | | | | |
| Foreign Stocks | 431,288 | | | | |
| Credit Based Commingled Funds | 48,654,058 | | | | |
| Total UNC Intermediate Pool Investments | \$ 460,691,354 | | | | |

The University has elected to invest \$147,556,180 of assets of the UNC Intermediate Pool in the UNC Investment Fund. The disclosures for these investments are not included in the preceding table. Rather, the disclosures for this portion of UNC Intermediate Pool investments are included in those for the UNC Investment Fund.

At June 30, 2020, investments in the UNC Intermediate Pool had the following credit quality distribution for securities with credit exposure:

| | Amount | AAA Aaa | AA Aa | A | BBB Baa | BB/Ba and below | Unrated |
|-------------------------------------|-----------------------|----------------------|----------------------|----------------------|-----------------------|-----------------------|----------------------|
| U.S. Agencies | \$ 14,468,553 | \$ 0 | \$ 14,468,553 | \$ 0 | \$ 0 | \$ 0 | \$ 0 |
| Mortgage Pass Throughs | 1,993,694 | | 418,505 | 1,575,189 | | | |
| Collateralized Mortgage Obligations | 47,514,690 | 981,338 | 4,141,138 | 947,269 | 10,213,152 | 22,682,961 | 8,548,832 |
| Asset-backed Securities | 45,814,565 | 1,901,343 | 2,646,058 | 1,341,587 | 7,217,040 | 21,712,529 | 10,996,008 |
| Debt Mutual Funds | 242,191,733 | | 7,331,158 | 53,206,501 | 177,587,730 | 4,066,344 | |
| Money Market Mutual Funds | 34,782,926 | 34,782,926 | | | | | |
| Domestic Corporate Bonds | 6,572,376 | | | | 349,291 | 6,182,518 | 40,567 |
| Foreign Corporate Bonds | 9,580,289 | | 412,588 | 1,034,090 | 2,271,961 | 5,860,150 | 1,500 |
| Foreign Government Bonds | 3,046,332 | | 648,429 | 622,082 | 1,775,821 | | |
| Totals | \$ 405,965,158 | \$ 37,665,607 | \$ 30,066,429 | \$ 58,726,718 | \$ 199,414,995 | \$ 60,504,502 | \$ 19,586,907 |

Rating Agency: Moody's/Standard & Poor's/Fitch (lowest rating reported above)

UNC Chapel Hill Foundation Investment Fund, Inc. (Chapel Hill Investment Fund) - Chapel Hill Investment Fund is a North Carolina nonprofit corporation exempt from income tax pursuant to Section 501(c)(3). It was established in January 1997 and is classified as a governmental external investment pool. The pool is utilized to manage the investments for charitable, nonprofit foundations, associations, trusts, endowments, and funds that are organized and operated primarily to support the University. The University's Endowment, UNC-Chapel Hill Foundation, Business School Foundation, UNC Health Foundation, Arts and Sciences Foundation, and Educational Foundation Trust are participants in the Chapel Hill Investment Fund and are included in the University's reporting entity (internal portion). Other affiliated organizations (external portion) in the Chapel Hill Investment Fund are not included in the University's reporting entity. Fund ownership of the Chapel Hill Investment Fund is measured using the unit value method. Under this method, each participant's investment balance is determined on a fair value basis. The external portion of the Chapel Hill Investment Fund is presented in the accompanying financial statements as Funds Held in Trust for Pool Participants.

The Chapel Hill Investment Fund is not registered with the SEC and is not subject to any formal oversight other than that provided by the Chapel Hill Investment Fund Board of Directors (See Note 1A).

The Chapel Hill Investment Fund is the primary participant of UNC Investment Fund, LLC (UNC Investment Fund) and on a monthly basis receives a unitization report from the Management Company defining change in book and fair value, applicable realized gains and losses and

expenses. The Chapel Hill Investment Fund uses a unit basis to determine each participant's fair value and to distribute the Fund's earnings according to the Fund's spending policy. There are no involuntary participants in the Chapel Hill Investment Fund. The University has not provided or obtained any legally binding guarantees during the period to support the value for the Chapel Hill Investment Fund. The audited financial statements for the Chapel Hill Investment Fund may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

The Chapel Hill Investment Fund consists of an approximate 55% membership in the UNC Investment Fund categorized below.

UNC Investment Fund, LLC (UNC Investment Fund) - The UNC Investment Fund is a nonprofit limited liability company exempt from income tax pursuant to Section 501(c)(3) organized under the laws of the State of North Carolina. It was established in December 2002 by the Chapel Hill Investment Fund and is classified as a governmental external investment pool. The pool is utilized to manage the investments for The University of North Carolina, its constituent institutions, and affiliates of the constituent institutions. This includes charitable, nonprofit foundations, associations, trusts, endowments, and funds that are organized and operated primarily to support these institutions. As previously noted, the Chapel Hill Investment Fund, with an approximate 55% membership interest as of June 30, 2020, is the predominant member of the UNC Investment Fund.

The University's reporting entity portion of the Chapel Hill Investment Fund and the Management Company's portion of the UNC Investment Fund are characterized as the internal portion. Other affiliated organizations in the Chapel Hill Investment Fund, in addition to other members of the UNC Investment Fund not included in the University's reporting entity, are characterized as the external portion. The external portion of the UNC Investment Fund is presented in the accompanying financial statements as Funds Held in Trust for Pool Participants. Membership interests of the UNC Investment Fund are measured using the unit value method. Under this method, each member's investment balance is determined on a fair value basis.

The UNC Investment Fund is not registered with the SEC and is not subject to any formal oversight other than that provided by the Chapel Hill Investment Fund as the controlling member (See Note 1A). Effective January 1, 2003, the Management Company entered into an investment management services agreement with the UNC Investment Fund and provides investment management and administrative services.

The Bank of New York Mellon is the custodian for the UNC Investment Fund and provides the University with monthly statements defining income and fair value information. The UNC Investment Fund uses a unit basis to determine each member's fair value and to distribute the fund's earnings. The University has not provided or obtained any legally binding guarantees

during the period to support the value for the UNC Investment Fund investments. The audited financial statements for the UNC Investment Fund may be obtained from UNC Management Company, Inc., 1400 Environ Way, Chapel Hill, NC 27517.

The following table presents the UNC Investment Fund investments by type and investments subject to interest rate risk at June 30, 2020:

UNC Investment Fund

| Investment Type | Amount | Investment Maturities (in Years) | | | |
|--|-------------------------|----------------------------------|----------------------|----------------------|-----------------------|
| | | Less Than 1 | 1 to 5 | 6 to 10 | More than 10 |
| Debt Securities | | | | | |
| U.S. Treasuries | \$ 32,556,725 | \$ 0 | \$ 13,750,350 | \$ 8,109,556 | \$ 10,696,819 |
| U.S. Agencies | 59,368,790 | | 2,512,927 | 2,781,562 | 54,074,301 |
| Collateralized Mortgage Obligations | 54,397,424 | | 1,857,251 | 1,488,096 | 51,052,077 |
| Asset-Backed Securities | 32,223,298 | | 5,716,665 | 5,002,379 | 21,504,254 |
| Money Market Mutual Funds | 295,511,844 | 295,511,844 | | | |
| Domestic Corporate Bonds | 3,459,997 | 1,015,445 | 684,812 | 1,026,930 | 732,810 |
| Total Debt Securities | 477,518,078 | \$ 296,527,289 | \$ 24,522,005 | \$ 18,408,523 | \$ 138,060,261 |
| Other Securities | | | | | |
| Domestic Stocks | 255,528,269 | | | | |
| Foreign Stocks | 10,203,778 | | | | |
| Real Estate Investment Trust | 37,288,155 | | | | |
| Long/Short Hedge Funds | 1,148,243,794 | | | | |
| Diversifying Hedge Funds | 611,461,329 | | | | |
| Hedge Funds in Liquidation | 9,423,236 | | | | |
| Long Only Hedge Funds | 1,432,434,399 | | | | |
| Credit Based Commingled Funds | 148,649,128 | | | | |
| Private Equity Limited Partnerships | 2,284,339,783 | | | | |
| Real Assets Limited Partnerships | 369,057,372 | | | | |
| Total UNC Investment Fund Investments | \$ 6,784,147,321 | | | | |

At June 30, 2020, investments in the UNC Investment Fund had the following credit quality distribution for securities with credit exposure:

| | Amount | AAA Aaa | AA Aa | A | BBB Baa | BB/Ba and below | Unrated |
|-------------------------------------|-----------------------|-----------------------|----------------------|---------------------|---------------------|-----------------------|----------------------|
| U.S. Agencies | \$ 59,368,790 | \$ 0 | \$ 49,486,512 | \$ 0 | \$ 268,364 | \$ 1,186,726 | \$ 8,427,188 |
| Collateralized Mortgage Obligations | 54,397,424 | 2,701,500 | | 125,917 | 1,571,247 | 18,748,679 | 31,250,081 |
| Asset-Backed Securities | 32,223,298 | | | | 2,092,229 | 19,888,490 | 10,242,579 |
| Money Market Mutual Funds | 295,511,844 | 295,511,844 | | | | | |
| Domestic Corporate Bonds | 3,459,997 | | 514,435 | 2,296,745 | | 478,440 | 170,377 |
| Totals | \$ 444,961,353 | \$ 298,213,344 | \$ 50,000,947 | \$ 2,422,662 | \$ 3,931,840 | \$ 40,302,335 | \$ 50,090,225 |

Rating Agency: Moody's/Standard & Poor's/Fitch (lowest rating reported above)

Foreign Currency Risk: The UNC Investment Fund holds foreign currency investments which are presented in U.S. dollars. At June 30, 2020, the UNC Investment Fund's exposure to foreign currency risk is as follows:

| Investment | Currency | Amount (U.S. Dollars) |
|-------------------------------------|------------------------|--------------------------|
| Private Equity Limited Partnerships | Euro | \$ 117,161,998 |
| Real Assets Limited Partnerships | Euro | 2,178,703 |
| Hedge Funds | Euro | <u>19,630,875</u> |
| Total Euro | | <u>138,971,576</u> |
| Private Equity Limited Partnerships | British Pound Sterling | 50,230,680 |
| Real Assets Limited Partnerships | British Pound Sterling | <u>398,999</u> |
| Total British Pound Sterling | | <u>50,629,679</u> |
| Private Equity Limited Partnerships | Canadian Dollar | 5,741,546 |
| Private Equity Limited Partnerships | Australian Dollar | <u>9,350</u> |
| Total | | <u>\$ 195,352,151</u> |

Investment Derivatives: At June 30, 2020, the UNC Investment Fund is invested in foreign currency forward contracts with a fair value of \$604,133 and in U.S. dollar equity futures with a fair value of \$5,686,001. Disclosures are provided for these investments in Note 11 Derivative Instruments.

Non-Pooled Investments - The following table presents investments by type and investments subject to interest rate risk at June 30, 2020, for the University's non-pooled investments.

Non-Pooled Investments

| Investment Type | Amount | Investment Maturities (in Years) | | | |
|-------------------------------------|----------------------|----------------------------------|-------------------|---------------------|------------------|
| | | Less Than 1 | 1 to 5 | 6 to 10 | More than 10 |
| Debt Securities | | | | | |
| U.S. Treasuries | \$ 143,377 | \$ 0 | \$ 30,927 | \$ 112,450 | \$ 0 |
| U.S. Agencies | 105 | | | 105 | |
| Mortgage Pass Throughs | 9,585 | | | 62 | 9,523 |
| Asset Backed Securities | 35,627 | | | | 35,627 |
| Debt Mutual Funds | 6,419,813 | | 589,821 | 5,829,992 | |
| Money Market Mutual Funds | 504,466 | 504,466 | | | |
| Foreign Government Bonds | <u>30,100</u> | | <u>30,100</u> | | |
| Total Debt Securities | 7,143,073 | \$ 504,466 | \$ 650,848 | \$ 5,942,609 | \$ 45,150 |
| Other Securities | | | | | |
| Equity Mutual Funds | 10,594,667 | | | | |
| Domestic Stocks | 12,742,004 | | | | |
| Foreign Stocks | 75,078 | | | | |
| International Mutual Funds | 7,621,120 | | | | |
| Investments in Real Estate | 9,993,274 | | | | |
| Gifted Life Insurance | 2,331,321 | | | | |
| Real Estate Investment Trust | 74,721 | | | | |
| Private Equity Limited Partnerships | <u>16,693,711</u> | | | | |
| Total Non-Pooled Investments | \$ 67,268,969 | | | | |

NOTES TO THE FINANCIAL STATEMENTS

At June 30, 2020, the University's non-pooled investments had the following credit quality distribution for securities with credit exposure:

| | Amount | AAA Aaa | AA Aa | BBB Baa | BB/Ba and below | Unrated |
|---------------------------|---------------------|---------------------|------------------|------------------|-----------------------|---------------------|
| U.S. Agencies | \$ 105 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 105 |
| Mortgage Pass Throughs | 9,585 | | | | | 9,585 |
| Asset Backed Securities | 35,627 | | | | 35,627 | |
| Debt Mutual Funds | 6,419,813 | 2,885,479 | 20,029 | 44,762 | 1,132,448 | 2,337,095 |
| Money Market Mutual Funds | 504,466 | 504,466 | | | | |
| Foreign Government Bonds | 30,100 | | | | 30,100 | |
| Totals | \$ 6,999,696 | \$ 3,389,945 | \$ 20,029 | \$ 44,762 | \$ 1,198,175 | \$ 2,346,785 |

Rating Agency: Moody's/Standard & Poor's/Fitch (lowest rating reported above)

Foreign Currency Risk: At June 30, 2020, the University had nominal direct exposure to foreign currency risk in non-pooled investments.

Total Investments - The following table presents the total investments at June 30, 2020:

| Investment Type | Amount |
|-------------------------------------|-------------------------|
| Debt Securities | |
| U.S. Treasuries | \$ 130,100,702 |
| U.S. Agencies | 135,555,346 |
| Mortgage Pass Throughs | 2,003,279 |
| Collateralized Mortgage Obligations | 103,290,347 |
| Asset-Backed Securities | 79,081,824 |
| Debt Mutual Funds | 248,611,546 |
| Money Market Mutual Funds | 335,623,582 |
| Domestic Corporate Bonds | 10,032,373 |
| Foreign Corporate Bonds | 9,580,289 |
| Foreign Government Bonds | 3,076,432 |
| Total Debt Securities | 1,056,955,720 |
| Other Securities | |
| Equity Index/Mutual Funds | 10,594,667 |
| International Mutual Funds | 7,621,120 |
| Investment in Real Estate | 9,993,274 |
| Real Estate Investment Trusts | 37,362,876 |
| Long/Short Hedge Funds | 1,148,243,794 |
| Diversifying Hedge Funds | 611,461,329 |
| Hedge Funds In Liquidation | 9,423,236 |
| Long Only Hedge Funds | 1,432,434,399 |
| Credit Based Commingled Funds | 197,303,186 |
| Private Equity Limited Partnerships | 2,301,033,494 |
| Real Assets Limited Partnerships | 369,057,372 |
| Gifted Life Insurance | 2,331,321 |
| Domestic Stocks | 268,300,273 |
| Foreign Stocks | 10,710,144 |
| Total Other Securities | 6,415,870,485 |
| Total Investments | \$ 7,472,826,205 |

Total investments as reported in the University's financial statements:

| | <u>Amount</u> |
|--|-------------------------|
| University Statement of Net Position | |
| Short-Term Investments | \$ 343,492,030 |
| Restricted Short-Term Investments | 153,062,306 |
| Endowment Investments | 2,415,818,783 |
| Restricted Investments | 3,829,378,385 |
| Other Investments | <u>33,817,326</u> |
| Subtotal | <u>6,775,568,830</u> |
| Component Units | |
| Investments of UNC Investment Fund Held for Component Units that are Discretely Presented in Accompanying Financial Statements | <u>697,257,375</u> |
| Total Investments | <u>\$ 7,472,826,205</u> |

The University's reporting entity, including the three discretely presented component units, comprises approximately 47% of the UNC Investment Fund.

Component Unit - Investments of the University's discretely presented component unit, the UNC Health Foundation are subject to and restricted by G.S. 36E "Uniform Prudent Management of Institutional Funds Act" (UPMIFA) and any requirements placed on them by contract or donor agreements. Because the UNC Health Foundation reports under the FASB reporting model, disclosures of the various investment risks are not required. The following is an analysis of investments by type:

| <u>Investment Type</u> | <u>Carrying Value</u> |
|--|-----------------------|
| Money Market Funds | \$ 9,552,405 |
| Common Stock and ETF | 2,486,761 |
| Hatteras Venture Partners V, LP and other Alternatives | 19,059,984 |
| Mutual Funds - Equity Oriented | 68,270,750 |
| Mutual Funds - Credit Oriented | 53,751,076 |
| Government Securities and Corporate Fixed Income | <u>31,143,817</u> |
| Total Investments | <u>\$ 184,264,793</u> |

NOTE 3 - FAIR VALUE MEASUREMENTS

University - To the extent available, the University's investments and derivatives are recorded at fair value as of June 30, 2020. GASB Statement No. 72, *Fair Value Measurement and Application*, defines fair value as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This statement establishes a hierarchy of valuation inputs based on the extent to which the inputs are observable in the marketplace. Inputs are used in applying the various valuation techniques and take into account the assumptions that market participants use to make valuation decisions. Inputs may include price

information, credit data, interest and yield curve data, and other factors specific to the financial instrument. Observable inputs reflect market data obtained from independent sources. In contrast, unobservable inputs reflect the entity's assumptions about how market participants would value the financial instrument. Valuation techniques should maximize the use of observable inputs to the extent available.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used for financial instruments measured at fair value on a recurring basis:

- Level 1 Investments whose values are based on quoted prices (unadjusted) for identical assets or liabilities in active markets that a government can access at the measurement date.
- Level 2 Investments with inputs – other than quoted prices included within Level 1 – that are observable for an asset or liability, either directly or indirectly.
- Level 3 Investments classified as Level 3 have unobservable inputs for an asset or liability and may require a degree of professional judgment.

The following table summarizes the University's investments, including deposits in the Short-Term Investment Fund and the discretely presented component units' portion of the UNC Investment Fund, within the fair value hierarchy at June 30, 2020:

| | Fair Value | Fair Value Measurements Using | | |
|---|-------------------------|-------------------------------|-------------------------|----------------------|
| | | Level 1 Inputs | Level 2 Inputs | Level 3 Inputs |
| Investments by Fair Value Level | | | | |
| Debt Securities | | | | |
| U.S. Treasuries | \$ 130,100,702 | \$ 130,100,702 | \$ 0 | \$ 0 |
| U.S. Agencies | 135,555,346 | | 135,555,346 | |
| Mortgage Pass Throughs | 2,003,279 | | 2,003,279 | |
| Collateralized Mortgage Obligations | 103,290,347 | | 103,290,347 | |
| Asset-backed Securities | 79,081,824 | | 79,081,824 | |
| Debt Mutual Funds | 248,611,546 | 248,611,546 | | |
| Money Market Mutual Funds | 335,623,582 | 335,623,582 | | |
| Domestic Corporate Bonds | 10,032,373 | | 10,032,373 | |
| Foreign Corporate Bonds | 9,580,289 | | 9,580,289 | |
| Foreign Government Bonds | 3,076,432 | | 3,076,432 | |
| Total Debt Securities | 1,056,955,720 | 714,335,830 | 342,619,890 | |
| Other Securities | | | | |
| International Mutual Funds | 7,621,120 | 7,621,120 | | |
| Equity Mutual Funds | 10,594,667 | 10,594,667 | | |
| Investments in Real Estate | 9,993,274 | | | 9,993,274 |
| Domestic Stocks | 268,300,273 | 259,491,124 | | 8,809,149 |
| Foreign Stocks | 10,710,144 | 10,044,494 | 665,650 | |
| Gifted Life Insurance | 2,331,321 | | | 2,331,321 |
| Real Estate Investment Trust | 37,362,876 | 37,362,876 | | |
| Total Other Securities | 346,913,675 | 325,114,281 | 665,650 | 21,133,744 |
| Total Investments by Fair Value Level | 1,403,869,395 | \$ 1,039,450,111 | \$ 343,285,540 | \$ 21,133,744 |
| Investments Measured at the Net Asset Value (NAV) | | | | |
| Long/Short Hedge Funds | 1,148,243,794 | | | |
| Diversifying Hedge Funds | 611,461,329 | | | |
| Hedge Funds in Liquidation | 9,423,236 | | | |
| Long Only Hedge Funds | 1,432,434,399 | | | |
| Credit Based Commingled Hedge Funds | 197,303,186 | | | |
| Private Equity Limited Partnerships | 2,301,033,494 | | | |
| Real Assets Limited Partnerships | 369,057,372 | | | |
| Total Investments Measured at the NAV | 6,068,956,810 | | | |
| Investments as a Position in an External Investment Pool | | | | |
| Short-Term Investment Fund | 785,220,225 | | | |
| Total Investments Measured at Fair Value | \$ 8,258,046,430 | | | |
| Derivative Instruments | | | | |
| Hedging Derivative Instruments | | | | |
| Pay-Fixed Interest Rate Swaps | \$ (157,129,612) | \$ 0 | \$ (157,129,612) | \$ 0 |
| Investment Derivative Instruments | | | | |
| Pay-Fixed Interest Rate Swap | (1,842,562) | | (1,842,562) | |
| U.S. Dollar Equity Futures | 5,686,001 | 5,686,001 | | |
| Foreign Currency Forwards | 604,133 | | 604,133 | |
| Total Derivative Instruments | \$ (152,682,040) | \$ 5,686,001 | \$ (158,368,041) | \$ 0 |

Short-Term Investment Fund - Ownership interests of the STIF are determined on a fair market valuation basis as of fiscal year end in accordance with the STIF operating procedures. Valuation of the underlying assets is performed by the custodian. Pool investments are measured at fair value in accordance with GASB 72. The University's position in the pool is measured

and reported at fair value and the STIF is not required to be categorized within the fair value hierarchy.

Debt and Equity Securities - Debt and equity securities classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Debt and equity securities classified in Level 2 of the fair value hierarchy are valued using matrix pricing. Domestic stocks classified in Level 3 of the fair value hierarchy primarily represent equity interest in start-up technology companies and are valued based on 409A valuations or recent valuations from the companies themselves.

Investments in Real Estate - Investments in real estate classified in Level 3 of the fair value hierarchy are valued using a combination of recent appraisals, historical appraisals, or tax assessed market value.

Gifted Life Insurance - Gifted Life Insurance policies classified in Level 3 of the fair value hierarchy are valued at the cash surrender value of the policies.

Derivative Instruments - Investment derivatives classified in Level 1 of the fair value hierarchy are valued using prices quoted in active markets for those securities. Interest rate swaps in the hedging and investment derivatives categories classified in Level 2 of the fair value hierarchy are valued based on present value using discounted cash flows. Foreign currency forward investment derivatives are classified as Level 2 and are transacted over-the-counter and valued directly from underlying exchange listed exchange rates.

The following table presents the valuation of investments measured at the Net Asset Value (NAV) per share (or its equivalent) at June 30, 2020.

Investments Measured at the NAV

| | Fair Value | Unfunded Commitments | Redemption Frequency (If Currently Eligible) | Redemption Notice Period |
|---|-------------------------|-------------------------|--|-----------------------------|
| Long/Short Hedge Funds ^{A(b)} | \$ 1,148,243,794 | \$ 27,976,672 | From Weekly to 3+ Years | 1 to 365 Days |
| Diversifying Hedge Funds ^{A(c)} | 611,461,329 | | From Weekly to 3+ Years | 1 to 365 Days |
| Hedge Funds in Liquidation ^{A(e)} | 9,423,236 | | From Weekly to 3+ Years | 1 to 365 Days |
| Long Only Equity Hedge Funds ^{A(a)} | 1,432,434,399 | | From Weekly to 3+ Years | 1 to 365 Days |
| Credit-Based Commingled Hedge Funds ^{A(d)} | 197,303,186 | | From Weekly to 3+ Years | 1 to 365 Days |
| Private Equity Limited Partnerships ^B | 2,301,033,494 | 957,560,440 | Not Eligible | 10-15 Years |
| Real Assets Limited Partnerships ^C | 369,057,372 | 367,694,566 | Not Eligible | 10-15 Years |
| Total Investments Measured at the NAV | <u>\$ 6,068,956,810</u> | | | |

A. Hedge Funds - For hedge funds, a combination of the following asset strategies is used:

(a) *Long Biased Equity* - Long biased equity managers are characterized by managers who adopt an investment strategy to primarily hold long positions in publicly listed equity securities to gain equity market exposure

globally. The managers can from time to time use equity index futures, options on equity index futures, and specific risk options.

(b) *Long/Short Equity* - Long/short equity managers are characterized by a manager's ability to buy and/or sell short individual securities that they believe the market has mispriced relative to their fundamental intrinsic value. The long and short positions are generally independent of one another and typically result in an overall net long exposure to equities. The managers can from time to time use equity index futures, options on equity index futures, and specific risk options.

(c) *Diversifying Strategies* - Diversifying strategy managers use strategies that tend to be uncorrelated with major equity market indices. Diversifying strategies managers may use derivatives such as fixed income and equity futures both as a hedging tool and to gain exposure to specific markets. They may also enter into various swap agreements to manage exposure to specific securities and markets.

(d) *Fixed Income/Credit-Based Commingled Strategies* - Fixed income fund managers include credit-based commingled hedge funds and generally use strategies that are focused on income generation and provide diversification to the portfolio. They may use futures and options on global fixed income and currency markets and can enter into various swap agreements. These vehicles are used purely to hedge exposure to a given market or to gain exposure to an illiquid market.

(e) *Hedge Funds in Liquidation* - Hedge funds in liquidation represent funds that are either in the process of being terminated or have received notice of termination.

- B. Private Equity Limited Partnerships** - Private equity managers typically invest in equity investments and transactions in private companies (i.e., companies that are not publicly listed on any stock exchange). Private equity investments are illiquid and expected to provide higher returns than public equity investments over the long term, as well as controlling volatility.

The energy subsection of the private equity strategy is primarily used to hedge against unanticipated inflation. This can include direct energy investments, energy security investments, and limited partnerships. The principal attraction of these investments is the lack of correlation with the balance of the portfolio.

- C. Real Assets Limited Partnerships** - Real estate managers primarily serve as a hedge against unanticipated general price inflation but are also a source of current income. Investments in this area include private portfolio investments focusing on specific niche markets within the real estate sector. Such sectors may include investments in public Real Estate Investment Trusts (REIT's) that provide a more liquid means of gaining exposure to the asset class.

Component Units - Discretely presented component units' financial data are reported in separate financial statements because of their use of different reporting models. Complete financial statements including applicable disclosures for the UNC Health Foundation, Arts and Sciences Foundation, and Educational Foundation Trust can be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

NOTE 4 - ENDOWMENT INVESTMENTS

Substantially all of the investments of the University's endowment funds are pooled in the Chapel Hill Investment Fund. Under the "Uniform Prudent Management of Institutional Funds Act" (UPMIFA), authorized by the North Carolina General Assembly on March 19, 2009, the Board may also appropriate expenditures from eligible nonexpendable balances if deemed prudent and necessary to meet program outcomes and for which such spending is not specifically prohibited by the donor agreements. During the year, the Board did not appropriate expenditures from eligible nonexpendable endowment funds.

Investment return of the University's pooled endowment funds is predicated on the total return concept (yield plus appreciation). Annual distributions from the Chapel Hill Investment Fund to the University's pooled endowment funds are generally based on an adopted distribution policy. Under this policy, the prior year distribution is increased by the rate of inflation as measured by the Consumer Price Index (CPI) unless the Board determines otherwise. Each year's distribution, however, is subject to a minimum of 4% and a maximum of 7% of the pooled endowment fund's average fair value for the previous year.

To the extent that the total return for the current year exceeds the distribution, the excess is added to principal. If current year earnings do not meet the distribution requirements, the University uses accumulated income and appreciation to make up the difference. At June 30, 2020, accumulated income and appreciation of \$794,348,122 was available in the University's pooled endowment funds of which \$626,594,329 was restricted to specific purposes including scholarships and fellowships, research, library acquisitions, professorships, departmental, and other uses. The remaining portion of net appreciation available to be spent is classified as unrestricted net position.

NOTE 5 - RECEIVABLES

Receivables at June 30, 2020, were as follows:

| | Gross Receivables | Less Allowance for Doubtful Accounts | Net Receivables |
|--|-----------------------|--|-----------------------|
| Current Receivables: | | | |
| Students | \$ 9,630,446 | \$ 4,073,130 | \$ 5,557,316 |
| Patients | 177,502,955 | 101,755,625 | 75,747,330 |
| Accounts | 58,449,036 | 7,562 | 58,441,474 |
| Intergovernmental | 55,346,245 | 5,397,505 | 49,948,740 |
| Pledges | 33,017,504 | 1,550,216 | 31,467,288 |
| Investment Earnings | 3,005,572 | | 3,005,572 |
| Interest on Loans | 1,067,447 | | 1,067,447 |
| Other | 1,065,788 | | 1,065,788 |
| Total Current Receivables | \$ 339,084,993 | \$ 112,784,038 | \$ 226,300,955 |
| Noncurrent Receivables: | | | |
| Pledges | \$ 59,010,521 | \$ 1,475,262 | \$ 57,535,259 |
| Notes Receivable: | | | |
| Notes Receivable - Current: | | | |
| Federal Loan Programs | \$ 2,666,569 | \$ 55,167 | \$ 2,611,402 |
| Falcon Therapeutics | 750,000 | | 750,000 |
| Institutional Student Loan Programs | 2,101,067 | 95,437 | 2,005,630 |
| Total Notes Receivable - Current | \$ 5,517,636 | \$ 150,604 | \$ 5,367,032 |
| Notes Receivable - Noncurrent: | | | |
| Federal Loan Programs | \$ 16,009,852 | \$ 294,600 | \$ 15,715,252 |
| Self-Help Ventures Fund | 3,000,000 | | 3,000,000 |
| Institutional Student Loan Programs | 15,354,832 | 607,629 | 14,747,203 |
| Total Notes Receivable - Noncurrent | \$ 34,364,684 | \$ 902,229 | \$ 33,462,455 |

Pledges are receivable over varying time periods ranging from one to 10 years and have been discounted based on a projected interest rate of 1.80% for the outstanding periods, and allowances are provided for the amounts estimated to be uncollectible.

Scheduled receipts, the discounted amount under these pledge commitments, and allowances for uncollectible pledges are as follows:

| Fiscal Year | Amount |
|--|----------------------|
| 2021 | \$ 33,017,505 |
| 2022 | 17,971,356 |
| 2023 | 15,441,473 |
| 2024 | 12,714,186 |
| 2025 | 5,134,473 |
| 2026-2030 | 10,726,545 |
| Total Pledge Receipts Expected | 95,005,538 |
| Less Discount Rate Amount Representing Interest (1.8% Rate of Interest) | 2,977,513 |
| Present Value of Pledge Receipts Expected | 92,028,025 |
| Less Allowance for Doubtful Accounts | 3,025,478 |
| Pledges Receivable, Net | \$ 89,002,547 |

NOTE 6 - CAPITAL ASSETS

A summary of changes in the capital assets for the year ended June 30, 2020, is presented as follows:

| | Balance July 1, 2019 | Increases | Decreases | Balance June 30, 2020 |
|--|-------------------------|-----------------------|----------------------|--------------------------|
| Capital Assets, Nondepreciable: | | | | |
| Land | \$ 70,703,507 | \$ 0 | \$ 0 | \$ 70,703,507 |
| Art, Literature, and Artifacts | 156,408,154 | 8,006,338 | 532 | 164,413,960 |
| Construction in Progress | 101,562,172 | 78,054,545 | 64,876,147 | 114,740,570 |
| Other Intangible Assets | 2,177,777 | | | 2,177,777 |
| Total Capital Assets, Nondepreciable | 330,851,610 | 86,060,883 | 64,876,679 | 352,035,814 |
| Capital Assets, Depreciable: | | | | |
| Buildings | 3,303,960,430 | 61,761,253 | 3,984,954 | 3,361,736,729 |
| Machinery and Equipment | 463,394,732 | 24,899,311 | 8,703,991 | 479,590,052 |
| General Infrastructure | 988,143,274 | 3,739,753 | | 991,883,027 |
| Computer Software | 121,695,640 | | | 121,695,640 |
| Total Capital Assets, Depreciable | 4,877,194,076 | 90,400,317 | 12,688,945 | 4,954,905,448 |
| Less Accumulated Depreciation/Amortization for: | | | | |
| Buildings | 1,292,774,861 | 85,457,265 | 1,171,377 | 1,377,060,749 |
| Machinery and Equipment | 267,933,789 | 27,936,730 | 7,243,184 | 288,627,335 |
| General Infrastructure | 482,301,065 | 29,370,192 | | 511,671,257 |
| Computer Software | 42,120,800 | 36,953,684 | | 79,074,484 |
| Total Accumulated Depreciation/Amortization | 2,085,130,515 | 179,717,871 | 8,414,561 | 2,256,433,825 |
| Total Capital Assets, Depreciable, Net | 2,792,063,561 | (89,317,554) | 4,274,384 | 2,698,471,623 |
| Capital Assets, Net | \$ 3,122,915,171 | \$ (3,256,671) | \$ 69,151,063 | \$ 3,050,507,437 |

NOTE 7 - ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

Accounts payable and accrued liabilities at June 30, 2020, were as follows:

| | Amount |
|---|-----------------------|
| Accounts Payable and Accrued Liabilities | |
| Accounts Payable | \$ 73,157,040 |
| Accounts Payable - Capital Assets | 9,103,360 |
| Accrued Payroll | 66,940,957 |
| Contract Retainage | 2,543,111 |
| Intergovernmental Payables | 14,284,504 |
| Investment Derivatives Liability | 1,842,562 |
| Total Accounts Payable and Accrued Liabilities | \$ 167,871,534 |

NOTE 8 - REVERSE REPURCHASE AGREEMENTS

Under the University's authority to purchase and sell securities, it has entered into fixed coupon reverse repurchase (reverse repurchase) agreements; that is, a sale of securities with a simultaneous agreement to repurchase them in the future at the same price plus a contract rate of interest. The value of the

securities underlying reverse repurchase agreements normally exceeds the cash received, providing the dealers a margin against a decline in value of the securities. If the dealers default on their obligations to resell these securities to the University or provide securities or cash of equal value, the University would suffer an economic loss equal to the difference between the value plus accrued interest of the underlying securities and the agreement obligation, including accrued interest. This credit exposure at year-end was \$6,121,554.

All sales of investments under reverse repurchase agreements are for fixed terms. In investing the proceeds of reverse repurchase agreements, the University’s practice is for the term to maturity of the investment to be the same as the term of the reverse repurchase agreement. The University’s investments in the underlying securities and the securities purchased with proceeds from the reverse repurchase agreements are in accordance with the statutory requirements as noted. The interest earnings and interest cost arising from reverse repurchase agreement transactions are reported at gross amounts on the accompanying financial statements.

NOTE 9 - SHORT-TERM DEBT

Short-term debt activity for the year ended June 30, 2020, was as follows:

| | Balance July 1, 2019 | Draws | Repayments | Balance June 30, 2020 |
|--------------------------|-------------------------|---------------|------------|--------------------------|
| Commercial Paper Program | \$ 25,000,000 | \$ 10,000,000 | \$ 0 | \$ 35,000,000 |

The University manages a commercial paper (“CP”) program under the issuer name of the Board of Governors of the University of North Carolina that provides up to \$500,000,000 in short-term financing for the University’s and North Carolina State University’s (“NCSU”) capital improvement programs. Under this CP program, the University is authorized to issue up to \$400,000,000 and NCSU is authorized to issue up to \$100,000,000.

At its June 2012 meeting, the Board of Governors for the University of North Carolina issued a resolution to limit the cumulative amount of outstanding commercial paper for the University under this program to \$250,000,000. This resolution does not impact NCSU. Contingent liquidity needs for the entire CP program are provided by the University and supported by a pledge of the University’s available funds.

During the fiscal year, the University continued to use its commercial paper program to provide low-cost bridge financing for capital projects with the intent to refinance all or a portion of the funding, through the issuance of long-term bonds. On July 9, 2019, the University issued \$5,000,000 of taxable commercial paper to fund the Media and Communications Studio project for the Athletics Department, Division of Laboratory Animal Medicine (Division of Comparative Medicine) Renovations, Kenan Labs Renovation for Applied Physics, and the Translational Research Building. On September 17, 2019, the University issued \$5,000,000 of taxable commercial paper to fund the Media and

Communications Studio project for the Athletics Department, Division of Laboratory Animal Medicine (Division of Comparative Medicine) Renovations, the Kenan Labs Renovation for Applied Physics, and the Translational Research Building.

Terms of Debt Agreements - Commercial paper balances held by the University are held under the University's General Revenue Pledge (General Revenue 2002A). The General Trust Indenture does not contain any non-standard events of default and is limited to provisions related to failure to pay principal or interest on such obligations. On the occurrence and continuance of an event of default, the Trustee may, or if required by a majority of the owners of the commercial paper, must declare the commercial paper immediately due and payable, whereupon it will, without further action, become due and payable.

NOTE 10 - LONG-TERM LIABILITIES

A. Changes in Long-Term Liabilities - A summary of changes in the long-term liabilities for the year ended June 30, 2020, is presented as follows:

| | Balance July 1, 2019 | Additions | Reductions | Balance June 30, 2020 | Current Portion |
|---|-------------------------|-----------------------|-----------------------|--------------------------|----------------------|
| Long-Term Debt | | | | | |
| Revenue Bonds Payable | \$ 1,279,980,000 | \$ 0 | \$ 29,890,000 | \$ 1,250,090,000 | \$ 53,235,253 |
| Revenue Bonds from Direct Placements | 30,000,000 | | | 30,000,000 | 30,000,000 |
| Plus: Unamortized Premium | 758,493 | | 490,997 | 267,496 | |
| Less: Accretion of Discount on Capital Appreciation Bonds | (1,415,832) | | (898,561) | (517,271) | |
| Total Revenue Bonds Payable and Bonds from Direct Placements, Net | 1,309,322,661 | | 29,482,436 | 1,279,840,225 | 83,235,253 |
| Notes from Direct Borrowings | 56,126,692 | | 1,911,913 | 54,214,779 | 3,304,971 |
| Capital Leases Payable | 988,836 | 374,501 | 486,306 | 877,031 | 463,103 |
| Total Long-Term Debt | 1,366,438,189 | 374,501 | 31,880,655 | 1,334,932,035 | 87,003,327 |
| Other Long-Term Liabilities | | | | | |
| Annuities and Life Income Payable | 47,515,479 | 5,577,678 | 8,513,613 | 44,579,544 | 944,243 |
| Employee Benefits | | | | | |
| Compensated Absences | 184,271,383 | 119,795,890 | 107,338,287 | 196,728,986 | 6,302,048 |
| Net Pension Liability | 316,120,760 | 13,102,693 | | 329,223,453 | |
| Net Other Postemployment Benefits Liability | 1,926,872,329 | 259,171,145 | | 2,186,043,474 | |
| Workers' Compensation | 15,542,666 | 1,047,639 | 1,689,872 | 14,900,433 | 2,544,900 |
| Total Other Long-Term Liabilities | 2,490,322,617 | 398,695,045 | 117,541,772 | 2,771,475,890 | 9,791,191 |
| Total Long-Term Liabilities, Net | \$ 3,856,760,806 | \$ 399,069,546 | \$ 149,422,427 | \$ 4,106,407,925 | \$ 96,794,518 |

Additional information regarding capital lease obligations is included in Note 12.

Additional information regarding the net pension liability is included in Note 16.

Additional information regarding the net other postemployment benefits liability is included in Note 17.

Additional information regarding worker's compensation is included in Note 18.

B. Revenue Bonds Payable and Bonds from Direct Placements - The University was indebted for revenue bonds payable and bonds from direct placements for the purposes shown in the following table:

| Purpose | Series | Interest Rate/Ranges | Final Maturity Date | Original Amount of Issue | Principal Paid Through June 30, 2020 | Accretion on Capital Appreciation Bonds | Principal Outstanding June 30, 2020 | See Table Below |
|--|--------|----------------------|---------------------|--------------------------|--------------------------------------|---|-------------------------------------|-----------------|
| General Revenue Bonds Payable | 2001B | 5.230%* | 12/01/2025 | \$ 54,970,000 | \$ 42,140,000 | \$ 0 | \$ 12,830,000 | |
| | 2001C | 0.100%* | 12/01/2025 | 54,970,000 | 42,140,000 | | 12,830,000 | |
| | 2009B | 5.757%** | 12/01/2039 | 112,805,000 | | | 112,805,000 | |
| | 2012B | 4.775%* | 12/01/2041 | 100,000,000 | | | 100,000,000 | |
| | 2012C | 2.285%-3.596% | 12/01/2033 | 127,095,000 | 30,435,000 | | 96,660,000 | |
| | 2014 | 2.355%-3.847% | 12/01/2034 | 265,600,000 | 12,495,000 | | 253,105,000 | |
| | 2016C | 1.505%-3.327% | 12/01/2036 | 400,950,000 | 17,060,000 | | 383,890,000 | |
| | 2017 | 2.814%-3.326% | 12/01/2038 | 110,225,000 | | | 110,225,000 | |
| | 2019A | 4.195%* | 12/01/2041 | 100,000,000 | | | 100,000,000 | |
| | 2019B | 3.664%* | 12/01/2034 | 50,925,000 | | | 50,925,000 | |
| Total General Revenue Bonds | | | | 1,377,540,000 | 144,270,000 | | 1,233,270,000 | |
| Utilities System | 1997 | 5.50% | 08/01/2021 | 30,379,142 | 67,315,000 | 53,238,587 | 16,302,729 | (1) |
| General Revenue Bonds from Direct Placements | 2012D | 1.400% | 06/01/2042 | 30,000,000 | | | 30,000,000 | |
| Total Revenue Bonds Payable and Bonds from Direct Placements (principal only) | | | | \$ 1,437,919,142 | \$ 211,585,000 | \$ 53,238,587 | \$ 1,279,572,729 | |
| Plus: Unamortized Premium | | | | | | | 267,496 | |
| Total Revenue Bonds Payable and Bonds from Direct Placements, Net | | | | | | | \$ 1,279,840,225 | |

* For variable rate debt, interest rates in effect at June 30, 2020 are included. For variable rate debt with interest rate swaps, the synthetic fixed rates are included.

** The University has elected to treat these bonds as federally taxable "Build America Bonds" for the purposes of the American Recovery and Reinvestment Act and to receive a cash subsidy from the U.S. Treasury equal to 32% of the interest payable on these bonds. For these bonds, the interest rate included is the taxable rate, which does not factor in the cash subsidy from the U.S. Treasury.

The University has pledged future revenues, net of specific operating expenses, to repay revenue bonds and bonds from direct placements as shown in the table below:

| Ref | Revenue Source | Total Future Revenues Pledged | For the Year Ended June 30, 2020 | | | Estimate of % of Revenues Pledged |
|-----|-------------------|-------------------------------|----------------------------------|--------------|----------|-----------------------------------|
| | | | Revenues Net of Expenses | Principal | Interest | |
| (1) | Utilities Revenue | \$ 16,820,000 | \$ 27,608,325 | \$ 8,415,000 | \$ 0 | 7% |

C. Notes from Direct Borrowings - The University was indebted for notes from direct borrowings for the purposes shown in the following table:

| Purpose | Financial Institution | Interest Rate | Final Maturity Date | Original Amount of Issue | Principal Paid Through June 30, 2020 | Principal Outstanding June 30, 2020 |
|---|-----------------------|---------------|---------------------|--------------------------|--------------------------------------|-------------------------------------|
| Real Property Purchase | Bank of America | 3.55% | 02/14/2024 | \$ 9,250,000 | \$ 7,205,344 | \$ 2,044,656 |
| Real Property Purchase | Nationwide | 4.26% | 02/01/2037 | 55,300,000 | 4,443,169 | 50,856,831 |
| Line of Credit | Bank of America | 1.11% | 04/30/2021 | 1,313,292 | | 1,313,292 |
| Total Notes from Direct Borrowings | | | | \$ 65,863,292 | \$ 11,648,513 | \$ 54,214,779 |

On July 1, 2009, the UNC-Chapel Hill Foundation, Inc. and Chapel Hill Foundation Real Estate Holdings Inc., (collectively, the "Borrowers";

individually, the “Foundation”, former, or “Real Estate Holdings”, the latter), entered into a loan agreement with Bank of America, N.A. for \$45.8 million to fund the acquisition of student housing and rental real property.

In December 2011, Real Estate Holdings formed a new North Carolina limited liability company called Granville Towers, LLC (the Company). Real Estate Holdings is the sole manager and member of the Company and transferred the Granville Towers condominium unit to the single purpose Company (that purpose being to own and operate Granville Towers). On December 15, 2011, the Company obtained a \$36.5 million loan from Aviva Life and Annuity Company. The proceeds were used to pay down the original Bank of America \$45.8 million loan, decreasing the outstanding balance to \$9.3 million.

On February 14, 2014, the Borrowers executed a modification agreement with Bank of America, N.A. with respect to the original loan amount of \$45.8 million which had an outstanding balance of \$9.3 million. The loan was paid down by \$4.3 million, and the remaining \$5.0 million was refinanced at a fixed rate of 3.55% for the term with no change to the provision whereby the University Foundation and the Corporation are joint obligors to the Bank. The final maturity date is February 14, 2024. Interest and principal payments are made monthly.

The Granville Towers-University Square financing contains a cross-default provision and two related covenant requirements. The first covenant requires that the Foundation and Holdings shall maintain on a consolidated basis, unrestricted, unencumbered liquid assets of not less than \$5,000,000. The second covenant involves the annual calculation of a Cash Flow Coverage Ratio wherein the ratio of Cash Flow is evaluated against the sum of the current portion of long-term debt and the current portion of capitalized lease obligations, plus interest expense on all obligations. The Cash Flow Coverage Ratio maintained must be at least 1.2 as defined above. The Bank waived the cash flow coverage ratio requirement for June 30, 2020. Additionally, the Foundation shall not have outstanding or incur any direct or contingent liabilities or lease obligations (other than (1) liabilities owed to the Bank, including any borrowings under the Foundation's current line of credit with the Bank (the "Line of Credit"), (2) liabilities with respect to split interest agreements placed with the Borrower, (3) rent and expenses associated with a Permitted Lease, (4) liabilities with respect to accrued operating expenses, and (5) liabilities with respect to the principal amount outstanding under the Refinancing), in excess of \$5,000,000 in the aggregate, or become liable for the liabilities of others, without the Bank's written consent.

The balance on the Granville Towers-University Square note was \$2.6 million as of June 30, 2019. In fiscal year 2020, the Foundation paid down \$0.6 million on the note. A balance of \$2.0 million remains on the note as of June 30, 2020.

On January 30, 2017, Granville Towers LLC obtained a loan from Nationwide Life Insurance Company (the “Lender”) in the amount

of \$55.3 million. The proceeds were used to pay the outstanding principal of \$33.5 million Aviva Life and Annuity Company note and related financing expenses. The remaining balance of the proceeds are being used to acquire or improve or protect an interest in real property which interest in real property is the only security for the loan or the fair market value of such interest in real property is at least equal to 80% of the principal amount of the loan.

The principal and interest payments for the note to the Lender are made in two hundred forty (240) consecutive monthly installments, calculated with an amortization period of twenty-five (25) years, the sum of \$299,891 paid on the 1st day of March 2017, and on the first day of each month thereafter until the first day of February 2037, on which date the entire balance of principal and interest then unpaid is due and payable. The interest rate is calculated at the rate of 4.26% per annum. The loan carries a default rate up to 5.0 percentage points higher than the rate of interest otherwise due. The loan contains a cross-default provision and is secured by a first deed of trust on the Granville Towers Property in addition to certain assignments to include leases, rents, and profits derived from the property and with certain exceptions, carries limited recourse to the University Foundation and Real Estate Holdings.

The balance on Granville Towers note was \$52.3 million as of June 30, 2019. In fiscal year 2020, the Foundation paid down \$1.4 million on the note. A balance of \$50.9 million remains on the note as of June 30, 2020.

The UNC-Chapel Hill Foundation Inc. (the "Foundation"), part of the University's reporting entity, has a line of credit agreement issued by Bank of America, N.A. to finance the costs of projects approved by the Board of Directors of the Foundation. On November 10, 2016, the Foundation increased the commitment amount of the line of credit from \$4.0 million to \$7.0 million. On April 27, 2018, the \$7.0 million line of credit was amended and renewed. Advances under the line of credit accrue interest at the variable rate of the LIBOR Market Index plus 95 basis points. An unused commitment fee is due each quarter calculated as 24 basis points of the difference between the commitment amount and the average balance outstanding for the quarter and paid in arrears on a quarterly basis. The loan carries a default rate up to 4.0 percentage points higher than the rate of interest otherwise due.

Under the terms of the line of credit, the Foundation shall not incur any additional indebtedness without the prior written consent of the Bank. Once the note for Granville Towers-University Square has been paid in full, the Foundation may incur additional indebtedness of up to \$10,000,000, in the aggregate, without the consent of the Bank.

The direct borrowing line of credit contains a cross-default provision and a covenant requirement that the Foundation's Total Unrestricted Net Assets as of the end of each fiscal year shall be at least \$15,000,000. Under the line of credit, the principal and accrued but unpaid interest may be declared

immediately due and payable upon the terms and conditions as provided in the Line of Credit Agreement in the event of default.

Outstanding draws against the line of credit totaled \$1.3 million at June 30, 2019. In fiscal year 2020, the Foundation maintained the balance on the line of credit leaving an available balance of \$5.7 million at June 30, 2020. The line of credit commitment has a maturity date of April 30, 2021. The June 30, 2020 outstanding balance of \$1.3 million is included in current liabilities.

D. Annual Requirements - The annual requirements to pay principal and interest on the long-term obligations at June 30, 2020, are as follows:

| Fiscal Year | Annual Requirements | | | | | | |
|---------------------------|-------------------------|-----------------------|---------------------------|--------------------------------------|---------------------|------------------------------|----------------------|
| | Revenue Bonds Payable | | | Revenue Bonds from Direct Placements | | Notes from Direct Borrowings | |
| | Principal | Interest | Interest Rate Swaps, Net* | Principal | Interest | Principal | Interest |
| 2021 | \$ 30,755,000 | \$ 34,830,143 | \$ 10,114,198 | \$ 0 | \$ 420,000 | \$ 3,304,971 | \$ 2,215,240 |
| 2022 | 32,295,000 | 34,436,169 | 10,029,117 | | 420,000 | 2,074,562 | 2,120,225 |
| 2023 | 32,150,000 | 33,911,020 | 9,939,436 | | 420,000 | 2,160,913 | 2,033,873 |
| 2024 | 32,955,000 | 33,259,881 | 9,844,986 | | 420,000 | 2,051,270 | 1,944,817 |
| 2025 | 33,825,000 | 32,549,540 | 9,745,341 | | 420,000 | 1,731,292 | 1,867,399 |
| 2026-2030 | 196,425,000 | 147,931,247 | 48,059,256 | | 2,100,000 | 9,852,127 | 8,141,327 |
| 2031-2035 | 477,605,000 | 96,642,157 | 46,767,449 | | 2,100,000 | 12,186,273 | 6,314,533 |
| 2036-2040 | 214,080,000 | 21,683,567 | 32,664,963 | | 2,100,000 | 20,853,371 | 2,274,824 |
| 2041-2045 | 200,000,000 | 1,370,505 | 9,065,872 | 30,000,000 | 805,000 | | |
| Total Requirements | \$ 1,250,090,000 | \$ 436,614,227 | \$ 186,230,618 | \$ 30,000,000 | \$ 9,205,000 | \$ 54,214,779 | \$ 26,912,238 |

Interest on the variable rate General Revenue Bonds 2001B is calculated at 0.12% at June 30, 2020.

Interest on the variable rate General Revenue Bonds 2001C is calculated at 0.10% at June 30, 2020.

Interest on the variable rate General Revenue Bonds 2012B is calculated at 0.51% at June 30, 2020.

Interest on the variable rate Bond from Direct Placement held under the General Revenue Bond 2012D is calculated at 1.40% at June 30, 2020.

Interest on the variable rate General Revenue Bonds 2019A is calculated at 0.46% at June 30, 2020.

Interest on the variable rate General Revenue Bonds 2019B is calculated at 0.46% at June 30, 2020.

Interest rates on General Revenue Bonds 2001 Series B and Series C are reset each week by the remarketing agent based upon a combination of the University's credit rating and market conditions.

Interest rate on General Revenue Bonds 2012 Series B is based on 67% of the 1-month LIBOR index rate plus an interest rate spread of 40 basis points.

Interest rates on General Revenue Bonds 2019 Series A and B are based on 67% of the 1-month LIBOR index rate plus an interest rate spread of 35 basis points.

This schedule also includes the debt service requirements for debt associated with interest rate swaps. More detailed information about interest rate swaps is presented in Note 11 - Derivative Instruments.

*Computed using (5.240%-0.130%) x (\$11,040,000 notional amount-annual swap reduction); (4.375%-0.109%) x (\$150,000,000 notional amount); and (3.314%-0.109%) x (\$100,000,000 notional amount).

The fiscal year 2021 principal requirements exclude demand bonds classified as current liabilities (see Note 10.E).

For the 2012B, 2019A, and 2019B bonds disclosed below, the University entered into standby liquidity agreements in the amount of \$100 million with TD Bank, N.A. on September 18, 2019, \$100 million with Bank of America, N.A. on September 1, 2018 (effective September 19, 2018), \$100 million with Branch Banking and Trust Company on September 19, 2018, and \$100 million with TD Bank, N.A. on September 19, 2017. As of September 18, 2019, the \$100 million standby liquidity agreement previously held with Royal Bank of Canada was replaced with the \$100 million standby liquidity agreement with TD Bank, N.A. Under each

standby liquidity agreement, the University is entitled to draw amounts sufficient to pay the principal and accrued interest on variable rate demand bonds (or commercial paper bonds) delivered for purchase. Under each standby liquidity agreement, the University may, at any time and for any reason, reduce the commitment by any amount upon 30 days' prior written notice to the Bank.

The University is required to pay a quarterly facility fee for each standby liquidity agreement in the amount shown below in the table per annum based on the size of the commitment. If a long-term debt rating assigned by S&P Global Ratings (S&P), Fitch Ratings (Fitch) or Moody's Investors Service (Moody's) is lowered, the facility fee assigned to the rating in the below table shall apply. In the event of a split rating (i.e., one or more of the rating agency's ratings is at a different level than the rating of either of the other rating agencies), the facility fee rate shall be determined as follows: (i) if two of the three ratings appear in the same level, the facility fee rate shall be based on that level; (ii) if no two ratings appear in the same level, the facility fee rate shall be based on the level which includes the middle of the three ratings.

| Facility Fee | | | | | | |
|------------------------|------------------------|---------------|-----------------------|----------------------------------|--|--|
| S&P | Fitch | Moody's | Bank of America, N.A. | Branch Banking and Trust Company | TD Bank, N.A. dated September 19, 2017 | TD Bank, N.A. dated September 18, 2019 |
| AA+ or higher | AA+ or higher | Aa1 or higher | 0.30% | 0.30% | 0.26% | 0.23% |
| AA | AA | Aa2 | 0.30% | 0.40% | 0.31% | 0.23% |
| AA- | AA- | Aa3 | 0.30% | 0.50% | 0.36% | 0.28% |
| A+ | A+ | A1 | 0.40% | 0.60% | 0.46% | 0.33% |
| A | A | A2 | 0.55% | 0.70% | 0.56% | 0.38% |
| A- | A- | A3 | 0.75% | 0.85% | 1.56% | 0.48% |
| BBB+ | BBB+ | Baa1 | Default Pricing*** | 0.85% | 1.56% | 0.58% |
| BBB | BBB | Baa2 | Default Pricing*** | 0.85% | 1.56% | 0.68% |
| BBB- | BBB- | Baa3 | Default Pricing*** | 0.85% | 1.56% | Base Rate* |
| Below Investment Grade | Below Investment Grade | | Default Pricing*** | 0.85% | 1.56% | Default Rate** |

* Per annum rate of interest equal to the greater of (a) the Federal Funds Rate plus 2.00% and (b) the Prime Rate

** Per annum rate of interest equal to the greater of (a) the Base Rate plus 3.00% and (b) 7.00% or otherwise permitted under applicable law

*** An increase of an additional 1.50% over the Facility Fee Rate otherwise in effect immediately prior (Max. 2.25%)

The University will pay an accrued interest fee equal to the amount of accrued interest, at the time of purchase of the bonds, multiplied by the bank rate multiplied by the ratio of the number of days from the date of purchase of the bonds until the date of payment of the accrued interest to 365 days.

Under each standby liquidity agreement, draws to purchase bonds will accrue interest at the bank rate payable on the same interest date as provided in the Series Indenture for the original bonds. The University is required to begin making a series of six fully amortizing semiannual principal payments on bonds held by the Bank six months after the date of funding.

The standby liquidity agreement with TD Bank, N.A. (dated September 18, 2019), Branch Banking and Trust Company, TD Bank, N.A. (dated September 19, 2017), and Bank of America, N.A., expire on September 18, 2024, September 19, 2023, September 19, 2022, and September 17, 2021 respectively. These agreements are subject to covenants customary to this type of transaction, including a default provision in the event that the University's long-term bond ratings were lowered to below BBB- for S&P, BBB- for Fitch, and Baa3 for Moody's. At June 30, 2020, no purchase drawings had been made under the standby liquidity agreements.

General Revenue, Series 2012B

The 2012B Bond has a maturity date of December 1, 2041 and carries an index tender date for the new Index Mode of November 9, 2022. The 2012B bond bears interest at the index rate, which is the rate per-annum determined monthly equal to 67.0% of One Month LIBOR plus an applicable spread of 0.40% (40 basis points).

The Series 2012B Bond is in Index Mode and is subject to redemption, at the option of the University, in whole or in part, on any business day during the period beginning six months prior to the index tender date, to and including such index tender date, at a redemption price equal to 100% of the principal amount called for redemption, plus accrued interest, if any, to the date of redemption. In addition, and also at the discretion of the University during the period beginning six months prior to the index tender date for such 2012B Bonds, the interest rate can be reset which would trigger a redemption requirement and a remarketing.

If the funds available to purchase the 2012B Bonds tendered on an index tender date are not sufficient to pay the purchase price, a Delayed Remarketing Period will commence on such index tender date and the failure to purchase tendered bonds will not constitute an event of default under the Indentures. The Delayed Remarketing Period will continue to (but not include) the earlier of (a) the date on which all such 2012B Bonds are successfully remarketed or (b) the date on which all of such 2012B Bonds have been deemed to have been paid and are no longer outstanding.

During a Delayed Remarketing Period for a Series of 2012B Bonds, unless the 2012B Bonds of such Series have been remarketed, the 2012B Bonds of such Series shall be subject to special mandatory redemption. Beginning with the first such June 1 or December 1 that occurs not less than six months following the date of commencement of the applicable Delayed Remarketing Period and ending on the sixth June 1 or December 1, the 2012B Bonds shall be repaid in six equal (or as equal as possible) semiannual installments on the special mandatory redemption date established herein. The final installment will be due and payable no later than the sixth special mandatory redemption date after the commencement of the applicable Delayed Remarketing Period.

The Annual Requirements schedule presents the 2012B Bonds as amortizing to full maturity. In the event of a failed remarket, the 2012B bonds would become due in six semiannual payments as set forth in the Delayed Remarketing Period, to be fully paid off in a period of three years after the respective index tender date established herein. Under the failed remarket scenario total principal payments would increase by \$16,666,667, \$33,333,333, \$33,333,333, and \$16,666,667 in fiscal years 2023, 2024, 2025, and 2026, respectively.

General Revenue, Series 2019AB

On behalf of the University, the Board of Governors for the University of North Carolina System issued General Revenue Bonds Series 2019AB on February 21, 2019. The 2019A Bonds have a maturity date of December 1, 2041 and the 2019B Bonds carry a mandatory sinking fund redemption in the principal amount of \$10,025,000 on December 1, 2033 and have a maturity date of December 1, 2034. However, both Series 2019A and 2019B Bonds are issued initially in the Index Mode extending to the initial index tender date of December 1, 2021. While in this mode, the bonds will bear interest at the index rate, which will be the rate per-annum determined monthly equal to 67.0% of One Month LIBOR plus an applicable spread of 0.35% (35 basis points).

In the event of a failed remarket of the 2019AB bonds beyond December 1, 2021, the bond payments would equal \$25,154,167, \$50,308,333, \$50,308,333, and \$25,154,167 in fiscal years 2022, 2023, 2024, and 2025, respectively.

- E. Demand Bonds** - Included in bonds payable are several variable rate demand bond issues. Demand bonds are securities that contain a “put” feature that allows bondholders to demand payment before the maturity of the debt upon proper notice to the University’s remarketing or paying agents.

With regards to the following demand bonds, the University has not entered into legal agreements, which would convert the demand bonds not successfully remarketed into another form of long-term debt.

General Revenue, Series 2001B and 2001C

In 2001, the University issued two series of variable rate demand bonds in the amount of \$54.97 million (2001B) and \$54.97 million (2001C) that each has a final maturity date of December 1, 2025. The bonds are subject to mandatory sinking fund redemption on the interest payment date on or immediately preceding each December throughout the term of the bonds. The proceeds of these issuances were used to provide funds to refund in advance of their maturity the following issues: Ambulatory Care Clinic, Series 1990; Athletic Facilities, Series 1998; Carolina Inn, Series 1994; School of Dentistry, Series 1995; Kenan Stadium, Series 1996; Housing System, Series 2000; and Parking System, Series 1997C. While bearing interest at a weekly rate, the bonds are subject to purchase on demand

with a seven-day notice and delivery to the University's Remarketing Agents; J.P. Morgan Securities, Inc. (2001B) and Merrill Lynch, Pierce, Fenner & Smith Incorporated (2001C). Effective September 23, 2008, J.P. Morgan Securities, Inc. replaced Lehman Brothers, Inc.

The University entered into standby liquidity agreements in the amount of \$100 million with TD Bank, N.A. on September 18, 2019, \$100 million with Bank of America, N.A. on September 1, 2018 (effective September 19, 2018), \$100 million with Branch Banking and Trust Company on September 19, 2018, and \$100 million with TD Bank, N.A. on September 19, 2017. As of September 18, 2019, the \$100 million standby liquidity agreement previously held with Royal Bank of Canada was replaced with the \$100 million standby liquidity agreement with TD Bank, N.A. Under each standby liquidity agreement, the University is entitled to draw amounts sufficient to pay the principal and accrued interest on variable rate demand bonds (or commercial paper bonds) delivered for purchase. Under each standby liquidity agreement, the University may, at any time and for any reason, reduce the commitment by any amount upon 30 days' prior written notice to the Bank.

The University is required to pay a quarterly facility fee for each standby liquidity agreement in the amount shown below in the table per annum based on the size of the commitment. If a long-term debt rating assigned by S&P Global (S&P), Fitch Ratings (Fitch) or Moody's Investors Service (Moody's) is lowered, the facility fee assigned to the rating in the below table shall apply. In the event of a split rating (i.e., one or more of the rating agency's ratings is at a different level than the rating of either of the other rating agencies), the facility fee rate shall be determined as follows: (i) if two of the three ratings appear in the same level, the facility fee rate shall be based on that level; (ii) if no two ratings appear in the same level, the facility fee rate shall be based on the level which includes the middle of the three ratings.

| | | | Facility Fee | | | |
|---------------------------|---------------------------|---------------|---------------------------|-------------------------------------|---|---|
| S&P | Fitch | Moody's | Bank of America, N.A. | Branch Banking and Trust Company | TD Bank, N.A. dated September 19, 2017 | TD Bank, N.A. dated September 18, 2019 |
| AA+ or higher | AA+ or higher | Aa1 or higher | 0.30% | 0.30% | 0.26% | 0.23% |
| AA | AA | Aa2 | 0.30% | 0.40% | 0.31% | 0.23% |
| AA- | AA- | Aa3 | 0.30% | 0.50% | 0.36% | 0.28% |
| A+ | A+ | A1 | 0.40% | 0.60% | 0.46% | 0.33% |
| A | A | A2 | 0.55% | 0.70% | 0.56% | 0.38% |
| A- | A- | A3 | 0.75% | 0.85% | 1.56% | 0.48% |
| BBB+ | BBB+ | Baa1 | <i>Default Pricing***</i> | 0.85% | 1.56% | 0.58% |
| BBB | BBB | Baa2 | <i>Default Pricing***</i> | 0.85% | 1.56% | 0.68% |
| BBB- | BBB- | Baa3 | <i>Default Pricing***</i> | 0.85% | 1.56% | <i>Base Rate*</i> |
| Below Investment Grade | Below Investment Grade | | <i>Default Pricing***</i> | 0.85% | 1.56% | <i>Default Rate**</i> |

* Per annum rate of interest equal to the greater of (a) the Federal Funds Rate plus 2.00% and (b) the Prime Rate

** Per annum rate of interest equal to the greater of (a) the Base Rate plus 3.00% and (b) 7.00% or otherwise permitted under applicable law

*** An increase of an additional 1.50% over the Facility Fee Rate otherwise in effect immediately prior (Max. 2.25%)

The University will pay an accrued interest fee equal to the amount of accrued interest, at the time of purchase of the bonds, multiplied by the bank rate multiplied by the ratio of the number of days from the date of purchase of the bonds until the date of payment of the accrued interest to 365 days.

Under each standby liquidity agreement, draws to purchase bonds will accrue interest at the bank rate payable on the same interest date as provided in the Series Indenture for the original bonds. The University is required to begin making a series of six fully amortizing semiannual principal payments on bonds held by the Bank six months after the date of funding.

The standby liquidity agreement with TD Bank, N.A. (dated September 18, 2019), Branch Banking and Trust Company, TD Bank, N.A. (dated September 19, 2017), and Bank of America, N.A., expire on September 18, 2024, September 19, 2023, September 19, 2022, and September 17, 2021 respectively. These agreements are subject to covenants customary to this type of transaction, including a default provision in the event that the University's long-term bond ratings were lowered to below BBB- for S&P, BBB- for Fitch, and Baa3 for Moody's. At June 30, 2020, no purchase drawings had been made under the standby liquidity agreements.

General Revenue, Series 2012D

On December 14, 2012, the University issued a direct placement bond to be designated "The University of North Carolina at Chapel Hill General Revenue Bond (Kenan Stadium Improvements Phase II), Series 2012D" (the "2012D Bond") to The Educational Foundation, Inc. (the "Owner") in exchange for certain improvements to Kenan Stadium on the University's campus known as "Kenan Stadium Improvements, Phase II - Carolina Student Athlete Center for Excellence". On June 1, 2015, the terms of the 2012D Bond were modified, changing the principal amount to \$30.0 million and extending the maturity to June 1, 2042. All other terms listed below remained the same.

Interest will be payable on the 2012D Bond on the maturity date or, if sooner, the prepayment date of the 2012D Bond as permitted under the tender option or the prepayment options as referenced below. The unpaid principal balance of the 2012D Bond, together with all accrued and unpaid interest thereon will be due and payable in full on the maturity date in the event that the tender option or prepayment option is not exercised in advance of the maturity date.

The University shall be responsible for calculating the interest due on the 2012D Bond and reporting such amount to the Owner and The Bank of New York Mellon Trust Company, N.A. (the "Trustee"). Payments of principal and interest on the 2012D Bond shall be made directly by the University to the Owner under the terms of the bond documents and the Trustee shall have no responsibility for making such payments. The

University shall promptly notify the Trustee in writing of any such payments. Any payments of principal and interest on the 2012D Bond made directly by the University to the Owner of the 2012D Bond will be credited against The Board of Governors of the University of North Carolina's (the "Board") obligation to cause payments to be made with respect to the 2012D Bond to the Debt Service Fund under the General Indenture.

The 2012D Bond may be tendered by the Owner of the 2012D Bond for payment by the University, on behalf of the Board, in whole or in part without premium or penalty on any business day on or after 90 days' prior written notice to the University and the Trustee.

The 2012D Bond may be prepaid by the University, on behalf of the Board, in whole or in part without premium or penalty on any business day on or after 90 days' prior written notice to the Owner and the Trustee.

When payment is due at maturity or upon exercise of the tender or prepayment options, the University may use proceeds from a long-term bond issue or proceeds from the issuance of commercial paper at the time of the payment to fund the obligation under the bond.

The unpaid principal balance of the 2012D Bond outstanding from time to time will bear interest at the Adjusted London Interbank Offered Rate (LIBOR) Rate. "Adjusted LIBOR Rate" means a rate of interest per annum equal to the sum obtained (rounded upwards, if necessary, to the next higher 1/16 of 1%) by adding (1) the one month LIBOR plus (2) 1% per annum, which shall be adjusted monthly on the first day of each LIBOR interest period; provided, however, for any particular LIBOR interest period, the Adjusted LIBOR Rate will not be less than 1.4% per annum. As of June 30, 2020, no accrued interest payable remained for the 2012D direct placement bond. With respect to other terms and conditions, this bond is not supported by any other letters of credit or standby liquidity agreements and does not contain any take out agreements.

- F. Terms of Debt Agreements** - The University's debt agreements are subject to the following collateral requirements and terms with finance-related consequences:

Revenue Bonds Payable - Bonds held by the University to include General Revenue 2001BC, General Revenue 2009B, General Revenue 2012BC, General Revenue 2014, General Revenue 2016C, General Revenue 2017, and General Revenue 2019AB are all held under the University's General Revenue Pledge. The General Trust Indenture does not contain any non-standard events of default and is limited to provisions related to failure to pay principal, premium or interest on such obligations. On the occurrence and continuance of an event of default, the Trustee may, or if required by a majority of the owners of the bonds, must, declare the bonds immediately due and payable, whereupon they will, without further action, become due and payable.

The University's Series 1997 Utility System bond issue includes capital appreciation bonds with an original issue amount of \$30,379,142. The Series 1997 Utility System bond matures on August 1, 2021. The utility bonds carry a maintenance reserve requirement as well as a sinking fund requirement. As of June 30, 2020, the sinking fund was fully funded for the August 1, 2020 maturity due of \$8.4 million and the maintenance reserve was fully funded in the amount of \$4.7 million. In addition and in accordance with the Bond Resolution, the Board has agreed to generate revenues that will be sufficient to pay the current expenses and to provide an amount equal to (1) not less than 1.15 times the amount required to be deposited in the sinking fund for the then current bond year and (2) moneys needed to be deposited in the other funds and accounts created under the Bond Resolution (maintenance reserve fund). Failure to remedy a covenant, agreement, or conditions contained within the bond resolution following 30 days written notice by the Paying Agent to the University would constitute an event of default whereby Bondholders holding not less than a majority of the aggregate principal amount of the Bonds then outstanding, declare the principal of all of the Bonds then outstanding and the interest accrued thereon, to be due and payable immediately. Both the maintenance reserve and the sinking fund are held in a restricted position as of June 30, 2020 on deposit with the Trustee.

Revenue Bonds from Direct Placements - On December 14, 2012, the University issued a bond to be designated "The University of North Carolina at Chapel Hill General Revenue Bond (Kenan Stadium Improvements Phase II), Series 2012D" (the "2012D Bond") to The Educational Foundation, Inc. (the "Owner") in exchange for certain improvements to Kenan Stadium on the University's campus known as "Kenan Stadium Improvements, Phase II — Carolina Student Athlete Center for Excellence".

The 2012D Bond may be tendered by the Owner of the 2012D Bond for payment by the University, on behalf of the Board, in whole or in part without premium or penalty on any business day on or after 90 days prior written notice to the University and the Trustee. The 2012D Bond is held under the University's General Revenue Pledge. The General Trust Indenture does not contain any non-standard events of default and is limited to provisions related to failure to pay principal, premium or interest on such obligations. On the occurrence and continuance of an event of default, the Trustee may, or if required by a majority of the owners of the bonds, must, declare the bonds immediately due and payable, whereupon they will, without further action, become due and payable.

Notes from Direct Borrowings - The Granville Towers-University Square financing contains a cross-default provision and two related covenant requirements. The first covenant requires that the Foundation and Holdings shall maintain on a consolidated basis, unrestricted, unencumbered liquid assets of not less than \$5,000,000. The second covenant involves the annual calculation of a Cash Flow Coverage Ratio wherein the ratio of Cash Flow is evaluated against the sum of the current portion of long-term debt and the current portion of capitalized lease

obligations, plus interest expense on all obligations. The Cash Flow Coverage Ratio maintained must be at least 1.2 as defined above. The Bank waived the cash flow coverage ratio requirement for June 30, 2020. Additionally, the Foundation shall not have outstanding or incur any direct or contingent liabilities or lease obligations (other than (1) liabilities owed to the Bank, including any borrowings under the Foundation's current line of credit with the Bank (the "Line of Credit"), (2) liabilities with respect to split interest agreements placed with the Borrower, (3) rent and expenses associated with a Permitted Lease, (4) liabilities with respect to accrued operating expenses, and (5) liabilities with respect to the principal amount outstanding under the Refinancing), in excess of \$5,000,000 in the aggregate, or become liable for the liabilities of others, without the Bank's written consent. In the event of default and upon declaration by the bank the balance of the loan as well as any accrued but unpaid interest would become immediately due and payable. The loan carries a default rate up to 4.0 percentage points higher than the rate of interest otherwise due. A balance of \$2.0 million remains on the note as of June 30, 2020.

The Granville Towers loan contains a cross-default provision and is secured by a first deed of trust on the Granville Towers Property in addition to certain assignments to include leases, rents, and profits derived from the property and with certain exceptions, carries limited recourse to the University Foundation and Real Estate Holding. The carrying value of the Granville Towers Property at June 30, 2020 was \$34,557,025. In the event of default and upon declaration by the bank the balance of the loan as well as any accrued but unpaid interest would become immediately due and payable. The interest rate is calculated at the rate of 4.26 percent per annum. The loan carries a default rate up to 5.0 percentage points higher than the rate of interest otherwise due. A balance of \$50.9 million remains on the note as of June 30, 2020.

The UNC-Chapel Hill Foundation Inc. (the "Foundation"), part of the University's reporting entity, has a line of credit agreement issued by Bank of America, N.A. to finance the costs of projects approved by the Board of Directors of the Foundation. Under the terms of the line of credit, the Foundation shall not incur any additional indebtedness without the prior written consent of the Bank. Once the note payable for Granville Towers-University Square has been paid in full, the Foundation may incur additional indebtedness beyond the line of credit of up to \$10,000,000, in the aggregate, without the consent of the Bank.

The direct borrowing line of credit contains a cross-default provision and a covenant requirement that the Foundation's Total Unrestricted Net Assets as of the end of each fiscal year shall be at least \$15,000,000. Under the line of credit, the principal and accrued but unpaid interest may be declared immediately due and payable upon the terms and conditions as provided in the Line of Credit Agreement in the event of default. The loan carries a default rate up to 4.0 percentage points higher than the rate of interest otherwise due. The June 30, 2020 outstanding balance of \$1.3 million is included in current liabilities.

G. Capital Appreciation Bonds - The University's Series 1997 Utility System bond issue includes capital appreciation bonds with an original issue amount of \$30,379,142. These bonds are recorded in the amount of \$16,302,729 (\$84,135,000 ultimate maturity less \$517,271 discount less \$67,315,000 principal paid) which is the accreted value at June 30, 2020.

H. Annuities Payable - The University participates in irrevocable split-interest agreements with donors that require benefits payments for a specified period to a designated beneficiary out of assets held in trust for this purpose. At the end of the predetermined period (e.g., the lifetime of the beneficiary specified by the donor), the remaining assets of the trust revert to the University for its use or for a purpose specified by the donor. At the end of each fiscal year, annuities and life income payable to the beneficiaries are calculated using the 2012 IAR mortality table, thus taking into consideration beneficiary's age and the amount of the gift.

NOTE 11 - DERIVATIVE INSTRUMENTS

Derivative instruments held at June 30, 2020 are as follows:

| Type | Notional Amount | Classification | Change in Value | | Value at June 30, 2020 | |
|--|-----------------|-------------------------------|------------------------|------------------------------|------------------------|--|
| | | | Increase (Decrease) | Classification | Asset (Liability) | |
| <i>Hedging Derivative Instruments</i> | | | | | | |
| <i>Cash Flow Hedges</i> | | | | | | |
| Pay-Fixed Interest Rate Swap | \$ 100,000,000 | Deferred Outflow of Resources | \$ (15,074,394) | Hedging Derivative Liability | \$ (43,973,012) | |
| Pay-Fixed Interest Rate Swap | 150,000,000 | Deferred Outflow of Resources | (32,384,931) | Hedging Derivative Liability | (113,156,600) | |
| Total | | | \$ (47,459,325) | | \$ (157,129,612) | |
| <i>Investment Derivative Instruments</i> | | | | | | |
| Pay-Fixed Interest Rate Swap 2001B Bonds | \$ 11,040,000 | Investment Income | \$ (389,690) | Accounts Payable | (1,842,562) | |
| U.S. Dollar Equity | 256,950,130 | Investment Income | 35,681,744 | Other Assets | 5,686,001 | |
| Foreign Currency | (96,970,219) | Investment Income | 3,627,795 | Other Assets | 604,133 | |
| Total | | | \$ 38,919,849 | | \$ 4,447,572 | |

Hedging derivative instruments held at June 30, 2020 are as follows:

| Type | Objective | Notional Amount | Effective Date | Maturity Date | Terms |
|------------------------------|---|-----------------|----------------|---------------|-------------------------------------|
| Pay-Fixed Interest Rate Swap | Hedge Changes in Cash Flows on Variable-Rate Debt | \$ 100,000,000 | 12/1/2007 | 12/1/2036 | Pay 3.314%, Receive 67% 1 Mo. LIBOR |
| Pay-Fixed Interest Rate Swap | Hedge Changes in Cash Flows on Variable-Rate Debt | \$ 150,000,000 | 12/1/2011 | 12/1/2041 | Pay 4.375%, Receive 67% 1 Mo. LIBOR |

The fair values of interest rate swaps at the University were provided by a financial advisor. The method used by the financial advisor calculates the future net settlement payments required by the swap and assumes that the current forward rates implied by the yield curve correctly anticipate future spot interest rates. These payments were then discounted using the spot rates implied by the current yield curve on hypothetical zero-coupon bonds due on the date of each future net settlement of the swap.

Hedging Derivative Risks

Interest Rate Risk: The University is exposed to interest rate risk on its interest rate swaps which is largely offset (or expected to be offset) by rates paid on variable-rate debt. In addition, the fair values of these instruments are highly sensitive to changes in interest rates. Because rates have declined significantly since the effective dates of the swaps, both of the swaps have a negative fair value as of June 30, 2020. The fair values are calculated as of June 30, 2020. As rates rise, the value of the swaps will increase, and as rates fall the fair value of the swaps will decrease.

Basis Risk: The University is exposed to basis risk on the swaps to the extent there is a mismatch between variable bond rates paid and swap index rates received.

Termination Risk: The swap agreements use the International Swaps and Derivatives Association (ISDA) Master Agreement, which includes standard termination events, such as failure to pay and bankruptcy. Termination could result in the University being required to make an unanticipated termination payment. The swaps may mandatorily terminate if the University fails to perform under terms of the contract.

Investment Derivative Risks

Credit Risk: At June 30, 2020, non-exchange traded investment derivatives reported as assets expose the University to credit risk as follows:

| Investment Derivative Instrument | Value | Counterparty | Collateral Held | Counterparty Credit Ratings | |
|--|------------|----------------------|-----------------|-----------------------------|---------|
| | | | | S&P/Fitch | Moody's |
| Foreign Currency Forwards | \$ 604,133 | JP Morgan Chase & Co | \$ 0 | A-/AA- | A2 |
| Total Exposure to Credit Risk ⁽¹⁾ | \$ 604,133 | | \$ 0 | | |

(1) The value total represents the maximum risk of loss that would be recognized at the reporting date if all counterparties failed to perform as contracted, without respect to any collateral or netting arrangement.

The University does not have a formal policy regarding requiring collateral or other security to support investment derivative instruments subject to credit risk. The University does not have a formal policy regarding entering into master netting arrangements.

Interest Rate Risk: The University is exposed to interest rate risk on its interest rate swap. The fair value of this instrument is highly sensitive to interest rate

changes. Because rates have changed since the effective date of the swap, the swap has a negative fair value of \$1,842,562 as of June 30, 2020. The negative fair value may be countered by a reduction in total interest payments required under the variable-rate bonds, creating lower synthetic interest rates. Because the coupons on the University’s variable-rate bonds adjust to changing interest rates, the bonds do not have corresponding fair value increases. The negative fair value is the calculated value as of June 30, 2020. As the yield curve rises, the value of the swap will increase and as rates fall, the value of the swap decreases. The University pays 5.24% and receives the Securities Industry and Financial Markets Association (SIFMA) Swaps Index rate. On June 30, 2020, SIFMA was 0.13%. The interest rate swap has a notional amount of \$11,040,000 and matures November 1, 2025.

Foreign Currency Risk: Foreign currency forward contracts are utilized from time to time to minimize the risk and exposure to fluctuations in the exchange rates of foreign currencies. Forward contracts based in foreign currency obligate the buyer to purchase an asset (or seller to sell an asset), such as a physical commodity or a financial instrument, at a predetermined future date and price. The University’s foreign currency investment derivatives are presented in U.S. dollars. See Note 2 - Deposits and Investments for further information about the University’s exposure to foreign currency risk.

NOTE 12 - LEASE OBLIGATIONS

A. Capital Lease Obligations - Capital lease obligations relating to machinery and equipment are recorded at the present value of the minimum lease payments. Future minimum lease payments under capital lease obligations consist of the following at June 30, 2020:

| <u>Fiscal Year</u> | <u>Amount</u> |
|---|-------------------|
| 2021 | \$ 481,201 |
| 2022 | 302,632 |
| 2023 | <u>117,634</u> |
| Total Minimum Lease Payments | 901,467 |
| Amount Representing Interest (1.8% - 3.9% Rates of Interest) | <u>24,436</u> |
| Present Value of Future Lease Payments | <u>\$ 877,031</u> |

Machinery and equipment acquired under capital lease amounted to \$1,692,307 at June 30, 2020.

Depreciation for the capital assets associated with capital leases is included in depreciation expense, and accumulated depreciation for assets acquired under capital lease totaled \$360,655 at June 30, 2020.

B. Operating Lease Obligations - The University entered into operating leases for equipment, buildings, and land. Future minimum lease payments under noncancelable operating leases consist of the following at June 30, 2020:

| <u>Fiscal Year</u> | <u>Amount</u> |
|-------------------------------------|------------------------------|
| 2021 | \$ 27,409,734 |
| 2022 | 25,437,970 |
| 2023 | 22,887,006 |
| 2024 | 19,800,442 |
| 2025 | 17,233,285 |
| 2026-2030 | 33,702,005 |
| 2031-2032 | <u>773,816</u> |
| Total Minimum Lease Payments | <u>\$ 147,244,258</u> |

Rental expense for all operating leases during the year was \$32,264,437.

NOTE 13 - NET POSITION

Unrestricted net position has been significantly affected by transactions resulting from the recognition of deferred outflows of resources, deferred inflows of resources, and related long-term liabilities, as shown in the following table:

| | <u>Amount</u> |
|--|----------------------------------|
| Net Pension Liability and Related Deferred Outflows of Resources and Deferred Inflows of Resources | \$ (190,135,330) |
| Net OPEB Liability (Retiree Health Benefit Fund) and Related Deferred Outflows of Resources and Deferred Inflows of Resources | <u>(2,787,915,503)</u> |
| Effect on Unrestricted Net Position | (2,978,050,833) |
| Total Unrestricted Net Position Before Recognition of Deferred Outflows of Resources, Deferred Inflows of Resources, and Related Long-Term Liabilities | <u>1,142,611,236</u> |
| Total Unrestricted Net Position | <u>\$ (1,835,439,597)</u> |

See Notes 16 and 17 for detailed information regarding the amortization of the deferred outflows of resources and deferred inflows of resources relating to pensions and OPEB, respectively.

NOTE 14 - REVENUES

A summary of discounts and allowances by revenue classification is presented as follows:

| | Gross Revenues | Less Scholarship Discounts and Allowances | Less Change in Allowance for Uncollectibles | Less Indigent Care and Contractual Adjustments | Net Revenues |
|---|------------------|---|---|--|----------------|
| Operating Revenues: | | | | | |
| Student Tuition and Fees, Net | \$ 543,856,472 | \$ 142,579,450 | \$ 928,256 | \$ 0 | \$ 400,348,766 |
| Patient Services, Net | \$ 1,118,259,499 | \$ 0 | \$ (11,525,649) | \$ 638,740,642 | \$ 491,044,506 |
| Sales and Services: | | | | | |
| Sales and Services of Auxiliary Enterprises | \$ 401,170,772 | \$ 12,181,184 | \$ 0 | \$ 0 | \$ 388,989,588 |
| Other Sales and Services | 46,071,805 | | | | 46,071,805 |
| Total Sales and Services, Net | \$ 447,242,577 | \$ 12,181,184 | \$ 0 | \$ 0 | \$ 435,061,393 |
| Nonoperating Revenues: | | | | | |
| Noncapital Contributions, Net | \$ 314,889,336 | \$ 0 | \$ (73,370) | \$ 0 | \$ 314,962,706 |

NOTE 15 - OPERATING EXPENSES BY FUNCTION

The University's operating expenses by functional classification are presented as follows:

| | Salaries and Benefits | Supplies and Services | Scholarships and Fellowships | Utilities | Depreciation/ Amortization | Total |
|-------------------------------------|-----------------------|-----------------------|------------------------------|---------------|----------------------------|------------------|
| Instruction | \$ 605,459,283 | \$ 152,926,506 | \$ 0 | \$ 56,677 | \$ 0 | \$ 758,442,466 |
| Research | 348,058,203 | 261,508,630 | | 180,655 | | 609,747,488 |
| Public Service | 72,647,015 | 71,254,437 | | 165,392 | | 144,066,844 |
| Academic Support | 92,135,516 | 47,501,730 | | 79,002 | | 139,716,248 |
| Student Services | 23,829,837 | 13,358,978 | | 19,757 | | 37,208,572 |
| Institutional Support | 121,903,810 | 72,026,135 | | 95,009 | | 194,024,954 |
| Operations and Maintenance of Plant | 48,597,947 | 32,247,013 | | 72,139,261 | | 152,984,221 |
| Student Financial Aid | | | 106,483,355 | | | 106,483,355 |
| Auxiliary Enterprises | 489,618,768 | 367,791,105 | | 8,986,281 | | 866,396,154 |
| Depreciation/ Amortization | | | | | 179,717,871 | 179,717,871 |
| Total Operating Expenses | \$ 1,802,250,379 | \$ 1,018,614,534 | \$ 106,483,355 | \$ 81,722,034 | \$ 179,717,871 | \$ 3,188,788,173 |

Included in the scholarship and fellowship function are student financial aid operating expenses for emergency financial aid payments to eligible students. These payments are for expenses related to the disruption of campus operations due to the coronavirus of \$1,127,185 provided by the CARES Act – Higher Education Emergency Relief Fund (HEERF). Because of the administrative involvement by the University in providing the student awards, the related program activity is reported as nonoperating Federal Aid – COVID-19 revenue and student financial aid operating expenses. Since the purpose of the student aid is not for educational or scholarship purposes, they do not affect the scholarship discounting adjustments reported in Note 14.

NOTE 16 - PENSION PLANS

A. Defined Benefit Plan

Plan Administration: The State of North Carolina administers the Teachers' and State Employees' Retirement System (TSERS) plan. This plan is a cost-sharing, multiple-employer, defined benefit pension plan established by the State to provide pension benefits for general employees and law enforcement officers (LEOs) of the State, general employees and LEOs of its component units, and employees of Local Education Agencies (LEAs) and charter schools not in the reporting entity. Membership is comprised of employees of the State (state agencies and institutions), universities, community colleges, and certain proprietary component units along with the LEAs and charter schools that elect to join the Retirement System. Benefit provisions are established by General Statute 135-5 and may be amended only by the North Carolina General Assembly.

Benefits Provided: TSERS provides retirement and survivor benefits. Retirement benefits are determined as 1.82% of the member's average final compensation times the member's years of creditable service. A member's average final compensation is calculated as the average of a member's four highest consecutive years of compensation. General employee plan members are eligible to retire with full retirement benefits at age 65 with five years of creditable service, at age 60 with 25 years of creditable service, or at any age with 30 years of creditable service. General employee plan members are eligible to retire with partial retirement benefits at age 50 with 20 years of creditable service or at age 60 with five years of creditable service. Survivor benefits are available to eligible beneficiaries of general members who die while in active service or within 180 days of their last day of service and who also have either completed 20 years of creditable service regardless of age, or have completed five years of service and have reached age 60. Eligible beneficiaries may elect to receive a monthly Survivor's Alternate Benefit for life or a return of the member's contributions. The plan does not provide for automatic post-retirement benefit increases.

Contributions: Contribution provisions are established by General Statute 135-8 and may be amended only by the North Carolina General Assembly. Employees are required to contribute 6% of their annual pay. The contribution rate for employers is set each year by the North Carolina General Assembly in the Appropriations Act based on the actuarially-determined rate recommended by the actuary. The University's contractually-required contribution rate for the year ended June 30, 2020 was 12.97% of covered payroll. Employee contributions to the pension plan were \$30,364,507, and the University's contributions were \$65,637,943 for the year ended June 30, 2020.

The TSERS plan's financial information, including all information about the plan's assets, deferred outflows of resources, liabilities, deferred inflows of resources, and fiduciary net position, is included in the State of North Carolina's fiscal year 2019 *Comprehensive Annual Financial Report*. An

electronic version of this report is available on the North Carolina Office of the State Controller's website at <https://www.osc.nc.gov/> or by calling the State Controller's Financial Reporting Section at (919) 707-0500.

TSERS Basis of Accounting: The financial statements of the TSERS plan were prepared using the accrual basis of accounting. Plan member contributions are recognized in the period in which the contributions are due. Employer contributions are recognized when due and the employer has a legal requirement to provide the contributions. Benefits and refunds are recognized when due and payable in accordance with the terms of each plan. For purposes of measuring the net pension liability, deferred outflows of resources and deferred inflows of resources related to pensions, and pension expense, information about the fiduciary net position of the TSERS plan, and additions to/deductions from the TSERS plan's fiduciary net position have been determined on the same basis as they are reported by TSERS.

Methods Used to Value TSERS Investment: Pursuant to *North Carolina General Statutes*, the State Treasurer is the custodian and administrator of the retirement systems. The State Treasurer maintains various investment portfolios in its External Investment Pool. TSERS and other pension plans of the State of North Carolina are the sole participants in the Long-Term Investment, Fixed Income Investment, Equity Investment, Real Estate Investment, Alternative Investment, Opportunistic Fixed Income Investment, and Inflation Sensitive Investment Portfolios. The Fixed Income Asset Class includes the Long-Term Investment and Fixed Income Investment Portfolios. The Global Equity Asset Class includes the Equity Investment Portfolio. The investment balance of each pension trust fund represents its share of the fair value of the net position of the various portfolios within the External Investment Pool. Detailed descriptions of the methods and significant assumptions regarding investments of the State Treasurer are provided in the 2019 *Comprehensive Annual Financial Report*.

Net Pension Liability: At June 30, 2020, the University reported a liability of \$329,223,453 for its proportionate share of the collective net pension liability. The net pension liability was measured as of June 30, 2019. The total pension liability used to calculate the net pension liability was determined by an actuarial valuation as of December 31, 2018, and update procedures were used to roll forward the total pension liability to June 30, 2019. The University's proportion of the net pension liability was based on the present value of future salaries for the University relative to the present value of future salaries for all participating employers, actuarially-determined. As of June 30, 2019, the University's proportion was 3.17570%, which was an increase of 0.00055 from its proportion measured as of June 30, 2018, which was 3.17515%.

Actuarial Assumptions: The following table presents the actuarial assumptions used to determine the total pension liability for the TSERS plan at the actuarial valuation date:

| | |
|-----------------------------|---------------|
| Valuation Date | 12/31/2018 |
| Inflation | 3% |
| Salary Increases* | 3.50% - 8.10% |
| Investment Rate of Return** | 7.00% |

* Salary increases include 3.5% inflation and productivity factor.

** Investment rate of return includes inflation assumption and is net of pension plan investment expense.

TSERS currently uses mortality tables that vary by age, gender, employee group (i.e. teacher, general, law enforcement officer), and health status (i.e. disabled and healthy). The current mortality rates are based on published tables and based on studies that cover significant portions of the U.S. population. The mortality rates also contain a provision to reflect future mortality improvements.

The actuarial assumptions used in the December 31, 2018 valuations were based on the results of an actuarial experience review for the period January 1, 2010 through December 31, 2014.

Future ad hoc Cost of Living Adjustment amounts are not considered to be substantively automatic and are therefore not included in the measurement.

The projected long-term investment returns and inflation assumptions are developed through review of current and historical capital markets data, sell-side investment research, consultant whitepapers, and historical performance of investment strategies. Fixed income return projections reflect current yields across the U.S. Treasury yield curve and market expectations of forward yields projected and interpolated for multiple tenors and over multiple year horizons. Global public equity return projections are established through analysis of the equity risk premium and the fixed income return projections. Other asset categories and strategies' return projections reflect the foregoing and historical data analysis. These projections are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. Best estimates of arithmetic real rates of return for each major asset class included in the pension plan's target asset allocation as of June 30, 2019 (the valuation date) are summarized in the following table:

| <u>Asset Class</u> | <u>Long-Term Expected Real Rate of Return</u> |
|----------------------------|---|
| Fixed Income | 1.4% |
| Global Equity | 5.3% |
| Real Estate | 4.3% |
| Alternatives | 8.9% |
| Opportunistic Fixed Income | 6.0% |
| Inflation Sensitive | 4.0% |

The information in the preceding table is based on 30-year expectations developed with the consulting actuary and is part of the asset, liability, and investment policy of the North Carolina Retirement Systems. The long-term nominal rates of return underlying the real rates of return are arithmetic annualized figures. The real rates of return are calculated from nominal rates by multiplicatively subtracting a long-term inflation assumption of 3.05%. Return projections do not include any excess return expectations over benchmark averages. All rates of return and inflation are annualized. The long-term expected real rate of return for the Bond Index Investment Pool as of June 30, 2019 is 1.4%.

Discount Rate: The discount rate used to measure the total pension liability was calculated at 7.00% for the December 31, 2018 valuation. The discount rate is in line with the long-term nominal expected return on pension plan investments. The calculation of the net pension liability is a present value calculation of the future net pension payments. These net pension payments assume that contributions from plan members will be made at the current statutory contribution rate and that contributions from employers will be made at the contractually required rates, actuarially determined. Based on those assumptions, the pension plan’s fiduciary net position was projected to be available to make all projected future benefit payments of the current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

Sensitivity of the Net Pension Liability to Changes in the Discount Rate: The following presents the net pension liability of the plan at June 30, 2019 calculated using the discount rate of 7.00%, as well as what the net pension liability would be if it were calculated using a discount rate that is 1-percentage point lower (6.00%) or 1-percentage point higher (8.00%) than the current rate:

| Net Pension Liability | | |
|-----------------------|-------------------------------|---------------------|
| 1% Decrease (6.00%) | Current Discount Rate (7.00%) | 1% Increase (8.00%) |
| \$ 626,603,814 | \$ 329,223,453 | \$ 79,759,230 |

Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions: For the year ended June 30, 2020, the University recognized pension expense of \$120,952,381. At June 30, 2020, the University reported deferred outflows of resources and deferred inflows of resources related to pensions from the following sources:

Employer Balances of Deferred Outflows of Resources and Deferred Inflows of Resources Related to Pensions by Classification:

| | <u>Deferred Outflows of Resources</u> | <u>Deferred Inflows of Resources</u> |
|--|---|--|
| Difference Between Actual and Expected Experience | \$ 27,539,162 | \$ 659,085 |
| Changes of Assumptions | 35,080,052 | |
| Net Difference Between Projected and Actual Earnings on Plan Investments | 6,310,751 | |
| Change in Proportion and Differences Between Employer's Contributions and Proportionate Share of Contributions | 5,179,300 | |
| Contributions Subsequent to the Measurement Date | <u>65,637,943</u> | |
| Total | <u>\$ 139,747,208</u> | <u>\$ 659,085</u> |

The amount of \$65,637,943 reported as deferred outflows of resources related to contributions subsequent to the measurement date will be included as a reduction of the net pension liability in the fiscal year ended June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized as pension expense as follows:

Schedule of the Net Amount of the Employer's Balances of Deferred Outflows of Resources and Deferred Inflows of Resources That will be Recognized in Pension Expense:

| <u>Year Ended June 30:</u> | <u>Amount</u> |
|----------------------------|----------------------|
| 2021 | \$ 51,304,503 |
| 2022 | 13,536,316 |
| 2023 | 6,401,712 |
| 2024 | <u>2,207,649</u> |
| Total | <u>\$ 73,450,180</u> |

- B. Defined Contribution Plan** - The Optional Retirement Program (ORP) is a defined contribution pension plan that provides retirement benefits with options for payments to beneficiaries in the event of the participant's death. Faculty and staff of the University may join ORP instead of TSERS. The Board of Governors of the University of North Carolina is responsible for

the administration of ORP and designates the companies authorized to offer investment products or the trustee responsible for the investment of contributions under ORP and approves the form and contents of the contracts and trust agreements.

Participants in ORP are immediately vested in the value of employee contributions. The value of employer contributions is vested after five years of participation in ORP. Participants become eligible to receive distributions when they terminate employment or retire.

Participant eligibility and contributory requirements are established by General Statute 135-5.1. Member and employer contribution rates are set each year by the North Carolina General Assembly. For the year ended June 30, 2020, these rates were set at 6% of covered payroll for members and 6.84% of covered payroll for employers. The University assumes no liability other than its contribution.

For the current fiscal year, the University had a total payroll of \$1,447,792,464, of which \$730,507,368 was covered under ORP. Total employee and employer contributions for pension benefits for the year were \$43,830,442 and \$49,966,704, respectively. The amount of expense recognized in the current year related to ORP is equal to the employer contributions less forfeitures of \$2,037,148.

NOTE 17 - OTHER POSTEMPLOYMENT BENEFITS

The University participates in two postemployment benefit plans, the Retiree Health Benefit Fund and the Disability Income Plan of North Carolina, that are administered by the State of North Carolina as pension and other employee benefit trust funds. Each plan's financial information, including all information about the plans' assets, deferred outflows of resources, liabilities, deferred inflows of resources, and fiduciary net position, is included in the State of North Carolina's fiscal year 2019 *Comprehensive Annual Financial Report*. An electronic version of this report is available on the North Carolina Office of the State Controller's website at <https://www.osc.nc.gov/> or by calling the State Controller's Financial Reporting Section at (919) 707-0500.

A. Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting: The financial statements of these plans were prepared using the accrual basis of accounting. Employer contributions are recognized when due and the employer has made a formal commitment to provide the contributions. Benefits are recognized when due and payable in accordance with the terms of each plan. For purposes of measuring the net OPEB liability, deferred outflows of resources and deferred inflows of resources related to OPEB, and OPEB expense, information about the fiduciary net position of each plan, and additions to/deductions from each plans' fiduciary net position have been determined on the same basis as they are reported by the plans.

Methods Used to Value Plan Investments: Pursuant to *North Carolina General Statutes*, the State Treasurer is the custodian and administrator of the other postemployment benefits funds. The State Treasurer maintains various investment portfolios in its External Investment Pool. The Retiree Health Benefit Fund participates in the External Investment Pool. The Disability Income Plan of North Carolina is invested in the Short-Term Investment Portfolio of the External Investment Pool and the Bond Index External Investment Pool. The investment balance of each other employee benefit trust fund represents its share of the fair value of the net position of the various portfolios within the pool. Detailed descriptions of the methods and significant assumptions regarding investments of the State Treasurer are provided in the 2019 *Comprehensive Annual Financial Report*.

B. Plan Descriptions

1. Health Benefits

Plan Administration: The State of North Carolina administers the North Carolina State Health Plan for Teachers and State Employees, referred to as the State Health Plan (the Plan), a healthcare plan exclusively for the benefit of employees of the State, the University of North Carolina System, community colleges, and certain other component units. In addition, Local Education Agencies (LEAs), charter schools, and some select local governments that are not part of the State's financial reporting entity also participate. Health benefit programs and premium rates are determined by the State Treasurer upon approval of the Plan Board of Trustees.

The Retiree Health Benefit Fund (RHBF) has been established as a fund to provide health benefits to retired and disabled employees and their applicable beneficiaries. RHBF is established by General Statute 135-7, Article 1. RHBF is a cost-sharing, multiple-employer, defined benefit healthcare plan, exclusively for the benefit of eligible former employees of the State, the University of North Carolina System, and community colleges. In addition, LEAs, charter schools, and some select local governments that are not part of the State's financial reporting entity also participate.

By statute, RHBF is administered by the Board of Trustees of the Teachers' and State Employees' Retirement System (TSERS). RHBF is supported by a percent of payroll contribution from participating employing units. Each year the percentage is set in legislation, as are the maximum per retiree contributions from RHBF to the Plan. The State Treasurer, with the approval of the Plan Board of Trustees, then sets the employer contributions (subject to the legislative cap) and the premiums to be paid by retirees, as well as the health benefits to be provided through the Plan.

Benefits Provided: Plan benefits received by retired employees and disabled employees from RHBF are OPEB. The healthcare benefits

for retired and disabled employees who are not eligible for Medicare are the same as for active employees as described in Note 18. The plan options change when former employees become eligible for Medicare. Medicare retirees have the option of selecting one of two fully-insured Medicare Advantage/Prescription Drug Plan options or the self-funded Traditional 70/30 Preferred Provider Organization plan option that is also offered to non-Medicare members. If the Traditional 70/30 Plan is selected by a Medicare retiree, the self-funded State Health Plan coverage is secondary to Medicare.

Those former employees who are eligible to receive medical benefits from RHBF are long-term disability beneficiaries of the Disability Income Plan of North Carolina and retirees of TSERS, the Consolidated Judicial Retirement System, the Legislative Retirement System, the Optional Retirement Program (ORP), and a small number of local governments, with five or more years of contributory membership service in their retirement system prior to disability or retirement, with the following exceptions: for employees first hired on or after October 1, 2006, and members of the North Carolina General Assembly first taking office on or after February 1, 2007, future coverage as retired employees and retired members of the North Carolina General Assembly is subject to the requirement that the future retiree have 20 or more years of retirement service credit in order to receive coverage on a noncontributory basis. Employees first hired on or after October 1, 2006 and members of the North Carolina General Assembly first taking office on or after February 1, 2007 with 10 but less than 20 years of retirement service credit are eligible for coverage on a partially contributory basis. For such future retirees, the State will pay 50% of the State Health Plan's total noncontributory premium.

The Plan's and RHBF's benefit and contribution provisions are established by Chapter 135-7, Article 1, and Chapter 135, Article 3B of the General Statutes and may be amended only by the North Carolina General Assembly. RHBF does not provide for automatic post-retirement benefit increases.

Contributions: Contribution rates to RHBF, which are intended to finance benefits and administrative expenses on a pay-as-you-go basis, are determined by the North Carolina General Assembly in the Appropriations Bill. The University's contractually-required contribution rate for the year ended June 30, 2020 was 6.47% of covered payroll. The University's contributions to the RHBF were \$80,006,887 for the year ended June 30, 2020.

2. Disability Income

Plan Administration: As discussed in Note 18, short-term and long-term disability benefits are provided through the Disability Income Plan of North Carolina (DIPNC), a cost-sharing, multiple-employer, defined benefit plan, to the eligible members of TSERS which includes

employees of the State, the University of North Carolina System, community colleges, certain participating component units, LEAs which are not part of the reporting entity, and the ORP. By statute, DIPNC is administered by the Department of State Treasurer and the Board of Trustees of TSERS.

Benefits Provided: Long-term disability benefits are payable as an OPEB from DIPNC after the conclusion of the short-term disability period or after salary continuation payments cease, whichever is later, for as long as an employee is disabled. An employee is eligible to receive long-term disability benefits provided the following requirements are met: (1) the employee has five or more years of contributing membership service in TSERS or the ORP, earned within 96 months prior to the end of the short-term disability period or cessation of salary continuation payments, whichever is later; (2) the employee must make application to receive long-term benefits within 180 days after the conclusion of the short-term disability period or after salary continuation payments cease or after monthly payments for Workers' Compensation cease (excluding monthly payments for permanent partial benefits), whichever is later; (3) the employee must be certified by the Medical Board to be mentally or physically disabled for the further performance of his/her usual occupation; (4) the disability must have been continuous, likely to be permanent, and incurred at the time of active employment; (5) the employee must not be eligible to receive an unreduced retirement benefit from TSERS; and (6) the employee must terminate employment as a permanent, full-time employee. An employee is eligible to receive an unreduced retirement benefit from TSERS after (1) reaching the age of 65 and completing five years of membership service, or (2) reaching the age of 60 and completing 25 years of creditable service, or (3) completing 30 years of creditable service, at any age.

For employees who had five or more years of membership service as of July 31, 2007, during the first 36 months of the long-term disability period, the monthly long-term disability benefit is equal to 65% of one-twelfth of an employee's annual base rate of compensation last payable to the participant or beneficiary prior to the beginning of the short-term disability period, plus the like percentage of one-twelfth of the annual longevity payment and local supplements to which the participant or beneficiary would be eligible. The monthly benefits are subject to a maximum of \$3,900 per month reduced by any primary Social Security disability benefits and by monthly payments for Workers' Compensation to which the participant or beneficiary may be entitled, but the benefits payable shall be no less than \$10 a month. After the first 36 months of the long-term disability, the long-term benefit is calculated in the same manner as described above except the monthly benefit is reduced by an amount equal to a monthly primary Social Security disability benefit to which the participant or beneficiary might be entitled had Social Security disability benefits been awarded. When an employee qualifies for an unreduced service retirement allowance from TSERS, the benefits payable from DIPNC

will cease, and the employee will commence retirement under TSERS or the ORP.

For employees who had less than five years of membership service as of July 31, 2007, and meet the requirements for long-term disability on or after August 1, 2007, during the first 36 months of the long-term disability period, the monthly long-term benefit shall be reduced by an amount equal to the monthly primary Social Security retirement benefit to which the employee might be entitled should the employee become age 62 during the first 36 months. This reduction becomes effective as of the first day of the month following the month of initial entitlement to Social Security benefits. After the first 36 months of the long-term disability, no further benefits are payable under the terms of this section unless the employee has been approved and is in receipt of primary Social Security disability benefits.

Contributions: Although DIPNC operates on a calendar year, disability income benefits are funded by actuarially determined employer contributions that are established in the Appropriations Bill by the North Carolina General Assembly and coincide with the State's fiscal year. The University's contractually-required contribution rate for the year ended June 30, 2020 was 0.10% of covered payroll. The University's contributions to DIPNC were \$1,236,582 for the year ended June 30, 2020.

C. Net OPEB Liability (Asset)

Net OPEB Liability: At June 30, 2020, the University reported a liability of \$2,186,043,474 for its proportionate share of the collective net OPEB liability for RHBF. The net OPEB liability was measured as of June 30, 2019. The total OPEB liability used to calculate the net OPEB liability was determined by an actuarial valuation as of December 31, 2018, and update procedures were used to roll forward the total OPEB liability to June 30, 2019. The University's proportion of the net OPEB liability was based on the present value of future salaries for the University relative to the present value of future salaries for all participating employers, actuarially-determined. As of June 30, 2019, the University's proportion was 6.90922%, which was an increase of 0.14546 from its proportion measured as of June 30, 2018, which was 6.76376%.

Net OPEB Asset: At June 30, 2020, the University reported an asset of \$2,987,331 for its proportionate share of the collective net OPEB asset for DIPNC. The net OPEB asset was measured as of June 30, 2019. The total OPEB liability used to calculate the net OPEB asset was determined by an actuarial valuation as of December 31, 2018, and update procedures were used to roll forward the total OPEB liability to June 30, 2019. The University's proportion of the net OPEB asset was based on the present value of future salaries for the University relative to the present value of future salaries for all participating employers, actuarially-determined. As of June 30, 2019, the University's proportion was 6.92313%, which was an

increase of 0.00921 from its proportion measured as of June 30, 2018, which was 6.91392%.

Actuarial Assumptions: The total OPEB liabilities for RHBF and DIPNC were determined by actuarial valuations as of December 31, 2018, using the following actuarial assumptions, applied to all periods included in the measurement, unless otherwise specified. The total OPEB liabilities were then rolled forward to June 30, 2019 utilizing update procedures incorporating the actuarial assumptions.

| | Retiree Health Benefit Fund | Disability Income Plan of N. C. |
|---|--|--|
| Valuation Date | 12/31/2018 | 12/31/2018 |
| Inflation | 3.00% | 3.00% |
| Salary Increases* | 3.5% - 8.10% | 3.50% - 8.10% |
| Investment Rate of Return** | 7.00% | 3.75% |
| Healthcare Cost Trend Rate - Medical | 6.50% grading down to 5.00% by 2024 | 6.50% grading down to 5.00% by 2024 |
| Healthcare Cost Trend Rate - Prescription Drug | 9.50% grading down to 5.00% by 2028 | 9.50% grading down to 5.00% by 2028 |
| Healthcare Cost Trend Rate - Medicare Advantage | 6.50% grading down to 5.00% by 2024 | N/A |
| Healthcare Cost Trend Rate - Administrative | 3.00% | N/A |

* Salary increases include 3.5% inflation and productivity factor.

** Investment rate of return is net of pension plan investment expense, including inflation.

N/A - Not Applicable

The OPEB plans currently use mortality tables that vary by age, gender, employee group (i.e. teacher, general, law enforcement officer) and health status (i.e. disabled and healthy). The current mortality rates are based on published tables and studies that cover significant portions of the U.S. population. The healthy mortality rates also contain a provision to reflect future mortality improvements.

The projected long-term investment returns and inflation assumptions are developed through a review of current and historical capital markets data, sell-side investment research, consultant whitepapers, and historical performance of investment strategies. Fixed income return projections reflect current yields across the U.S. Treasury yield curve and market expectations of forward yields projected and interpolated for multiple tenors and over multiple year horizons. Global public equity return projects are established through analysis of the equity risk premium and the fixed income return projections. Other asset categories and strategies' return projections reflect the foregoing and historical data analysis. These projections are combined to produce the long-term expected rate of return by weighting the expected future real rates of return by the target asset allocation percentage and by adding expected inflation. DIPNC is primarily invested in the Bond Index Investment Pool as of June 30, 2019.

Best estimates of real rates of return for each major asset class included in RHBF’s target asset allocation as of June 30, 2019 (the valuation date) are summarized in the following table:

| Asset Class | Long-Term Expected Real Rate of Return |
|----------------------------|---|
| Fixed Income | 1.4% |
| Global Equity | 5.3% |
| Real Estate | 4.3% |
| Alternatives | 8.9% |
| Opportunistic Fixed Income | 6.0% |
| Inflation Sensitive | 4.0% |

The information in the preceding table is based on 30-year expectations developed with the consulting actuary and is part of the asset, liability, and investment policy of the North Carolina Retirement Systems. The long-term nominal rates of return underlying the real rates of return are arithmetic annualized figures. The real rates of return are calculated from nominal rates by multiplicatively subtracting a long-term inflation assumption of 3.05%. Return projections do not include any excess return expectations over benchmark averages. All rates of return and inflation are annualized. The long-term expected real rate of return for the Bond Index Investment Pool as of June 30, 2019 is 1.4%.

Actuarial valuations of the plans involve estimates of the value of reported amounts and assumptions about the probability of occurrence of events far into the future. Examples include assumptions about future employment, mortality, and the healthcare cost trend. Actuarially determined amounts are subject to continual revision as actual results are compared to past expectations and new estimates are made about the future.

The actuarial assumptions used for RHBF are consistent with those used to value the pension benefits of TSERS where appropriate. These assumptions are based on the most recent pension valuations available. The discount rate used for RHBF reflects a pay-as-you-go approach.

Projections of benefits for financial reporting purposes of the plans are based on the substantive plan (the plan as understood by the employer and plan members) and include the types of benefits provided at the time of each valuation and historical pattern of sharing of benefit costs between the employer and plan members to that point. Historically, the benefits funded solely by employer contributions applied equally to all retirees. Currently, as described earlier in the note, benefits are dependent on membership requirements.

The actuarial methods and assumptions used for DIPNC include techniques that are designed to reduce the effects of short-term volatility

in actuarial accrued liabilities and the actuarial value of assets, consistent with the long-term perspective of the calculations.

The actuarial assumptions used in the December 31, 2018 valuations were generally based on the results of an actuarial experience study prepared as of December 31, 2014, as amended for updates to certain assumptions (such as the long-term investment return, medical claims, and medical trend rate assumptions) implemented based on annual reviews that have occurred since that experience study.

Discount Rate: The discount rate used to measure the total OPEB liability for RHBF was 3.50%. The projection of cash flows used to determine the discount rate assumed that contributions from employers will be made at the current statutorily determined contribution rate. Based on the above assumptions, the plan’s fiduciary net position was not projected to be available to make projected future benefit payments of current plan members. As a result, a municipal bond rate of 3.50% was used as the discount rate used to measure the total OPEB liability. The 3.50% rate is based on the Bond Buyer 20-year General Obligation Index as of June 30, 2019.

The discount rate used to measure the total OPEB liability for DIPNC was 3.75%. The projection of cash flows used to determine the discount rate assumed that contributions from plan members will be made at the current contribution rate and that contributions from employers will be made at statutorily required rates, actuarially determined. Based on those assumptions, the plan’s fiduciary net position was projected to be available to make all projected future benefit payments of the current plan members. Therefore, the long-term expected rate of return on plan investments was applied to all periods of projected benefit payments to determine the total OPEB liability.

Sensitivity of the Net OPEB Liability (Asset) to Changes in the Discount Rate: The following presents the University’s proportionate share of the net OPEB liability (asset) of the plans, as well as what the plans’ net OPEB liability (asset) would be if it were calculated using a discount rate that is 1-percentage point lower or 1-percentage point higher than the current discount rate:

| | | Net OPEB Liability (Asset) | | |
|-------|----|----------------------------|-------------------------------|---------------------|
| | | 1% Decrease (2.50%) | Current Discount Rate (3.50%) | 1% Increase (4.50%) |
| RHBF | \$ | 2,597,809,028 | \$ 2,186,043,474 | \$ 1,856,339,244 |
| | | 1% Decrease (2.75%) | Current Discount Rate (3.75%) | 1% Increase (4.75%) |
| DIPNC | \$ | (2,530,196) | \$ (2,987,331) | \$ (3,431,519) |

Sensitivity of the Net OPEB Liability (Asset) to Changes in the Healthcare Cost Trend Rates: The following presents the net OPEB liability (asset) of the plans, as well as what the plans’ net OPEB liability (asset) would be if it were calculated using healthcare cost trend rates that are 1-percentage

point lower or 1-percentage point higher than the current healthcare cost trend rates:

| Net OPEB Liability (Asset) | | | |
|----------------------------|---|--|--|
| | 1% Decrease (Medical - 4.00% - 5.50%, Pharmacy - 4.00% - 8.50%, Med. Advantage - 4.00% - 5.50%, Administrative - 2.00%) | Current Healthcare Cost Trend Rates (Medical - 5.00% - 6.50%, Pharmacy - 5.00% - 9.50%, Med. Advantage - 5.00% - 6.50%, Administrative - 3.00%) | 1% Increase (Medical - 6.00% - 7.50%, Pharmacy - 6.00% - 10.50%, Med. Advantage - 6.00% - 7.50%, Administrative - 4.00%) |
| RHBF | \$ 1,800,040,777 | \$ 2,186,043,474 | \$ 2,693,574,686 |
| | 1% Decrease (Medical - 4.00% - 5.50%, Pharmacy - 4.00% - 8.50%) | Current Healthcare Cost Trend Rates (Medical - 5.00% - 6.50%, Pharmacy - 5.00% - 9.50%) | 1% Increase (Medical - 6.00% - 7.50%, Pharmacy - 6.00% - 10.50%) |
| DIPNC | \$ (2,992,592) | \$ (2,987,331) | \$ (2,982,415) |

Deferred Outflows of Resources and Deferred Inflows of Resources Related to OPEB: For the year ended June 30, 2020, the University recognized OPEB contra-expense of \$56,001,542 for RHBF and expense of \$2,828,272 for DIPNC, resulting in a total OPEB contra-expense of \$53,173,270. At June 30, 2020, the University reported deferred outflows of resources and deferred inflows of resources related to OPEB from the following sources:

| Employer Balances of Deferred Outflows of Resources Related to OPEB by Classification: | | | |
|---|-----------------------|---------------------|-----------------------|
| | RHBF | DIPNC | Total |
| Differences Between Actual and Expected Experience | \$ 0 | \$ 3,051,785 | \$ 3,051,785 |
| Changes of Assumptions | 105,071,542 | 330,926 | 105,402,468 |
| Net Difference Between Projected and Actual Earnings on Plan Investments | 1,455,731 | 569,012 | 2,024,743 |
| Changes in Proportion and Differences Between Employer's Contributions and Proportionate Share of Contributions | 170,131,046 | | 170,131,046 |
| Contributions Subsequent to the Measurement Date | 80,006,887 | 1,236,582 | 81,243,469 |
| Total | \$ 356,665,206 | \$ 5,188,305 | \$ 361,853,511 |

Employer Balances of Deferred Inflows of Resources
Related to OPEB by Classification:

| | RHBFB | DIPNC | Total |
|---|-----------------------|-------------------|-----------------------|
| Differences Between Actual and Expected Experience | \$ 110,204,130 | \$ 0 | \$ 110,204,130 |
| Changes of Assumptions | 657,220,478 | 306,487 | 657,526,965 |
| Changes in Proportion and Differences Between Employer's Contributions and Proportionate Share of Contributions | 191,112,627 | 119,041 | 191,231,668 |
| Total | \$ 958,537,235 | \$ 425,528 | \$ 958,962,763 |

Amounts reported as deferred outflows of resources related to contributions subsequent to the measurement date will be recognized as a reduction of the net OPEB liability related to RHBFB and an increase of the net OPEB asset related to DIPNC in the fiscal year ended June 30, 2021. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense as follows:

Schedule of the Net Amount of the Employer's Balances of Deferred Outflows of Resources and Deferred Inflows of Resources That will be Recognized in OPEB Expense:

| Year Ended June 30: | RHBFB | DIPNC |
|---------------------|-------------------------|---------------------|
| 2021 | \$ (233,125,751) | \$ 1,205,627 |
| 2022 | (233,125,751) | 840,825 |
| 2023 | (232,915,279) | 609,246 |
| 2024 | (12,165,891) | 373,721 |
| 2025 | 29,453,756 | 523,744 |
| Thereafter | (26,968) | (26,968) |
| Total | \$ (681,878,916) | \$ 3,526,195 |

NOTE 18 - RISK MANAGEMENT

The University is exposed to various risks of loss related to torts; theft of, damage to, and destruction of assets; errors and omissions; injuries to employees; and natural disasters. These exposures to loss are handled via a combination of methods, including participation in state-administered insurance programs, purchase of commercial insurance, and self-retention of certain risks. There have been no significant reductions in insurance coverage from the previous year and settled claims have not exceeded coverage in any of the past three fiscal years.

Public Officers and Employees Liability Insurance - The risk of tort claims of up to \$1,000,000 per claimant is retained under the authority of the State Tort Claims Act. In addition, the State provides excess public officers' and employees' liability insurance up to \$2,000,000 per employee, \$2,000,000 per

occurrence, and \$10,000,000 annual aggregate through a contract with a private insurance company. The University pays the premium, based on a composite rate, directly to the private insurer.

UNC Investment Fund, LLC (Blended Component Unit) Liability Insurance

- The UNC Investment Fund is exposed to various risks of loss related to, without limitation, torts, theft of assets, and errors and omissions. The Management Company is a separate legal entity from the University of North Carolina System and the University. However, the Management Company's employees conduct UNC Investment Fund's affairs. Therefore, certain exposures to loss are handled by the purchase of commercial insurance by the Management Company. This insurance is independent of the risk management programs of the University of North Carolina System and the University.

Fire and Other Property Loss - The University is required to maintain fire and lightning coverage on all state-owned buildings and contents through the State Property Fire Insurance Fund (Fund), an internal service fund of the State. Such coverage is provided at no cost to the University for operations supported by the State's General Fund. Other operations not supported by the State's General Fund, such as housing units or athletic facilities, are charged for the coverage. The University has opted to purchase additional coverages offered by the Fund. Examples of this additional coverage include special form (all-risk) and business interruption insurance for certain property exposures. Losses covered by the Fund are subject to a \$5,000 per occurrence deductible.

Automobile Liability Insurance - All state-owned vehicles are covered by liability insurance through a private insurance company and handled by the North Carolina Department of Insurance. The liability limits for losses are \$1,000,000 per person and \$10,000,000 per occurrence. The University pays premiums to the North Carolina Department of Insurance for the coverage.

Employee Dishonesty and Computer Fraud - The University is protected for losses from employee dishonesty and computer fraud. This coverage is with a private insurance company and is handled by the North Carolina Department of Insurance. Universities are charged a premium by the private insurance company. Coverage limit is \$5,000,000 per occurrence. The private insurance company pays 90% of each loss less a \$100,000 deductible.

Other authorized coverage not handled by the North Carolina Department of Insurance is purchased through the State's insurance agent of record. Examples include, but are not limited to, fine arts, boiler and machinery, medical professional liability, and study abroad health insurance.

Statewide Workers' Compensation Program - The North Carolina Workers' Compensation Program provides benefits to workers injured on the job. All employees of the State and its component units are included in the program. When an employee is injured, the University's primary responsibility is to arrange for and provide the necessary treatment for work related injury. The University is responsible for paying medical benefits and compensation in accordance with the North Carolina Workers' Compensation Act. The University retains the risk for workers' compensation.

Liability Insurance Trust Fund - The University participates in the Liability Insurance Trust Fund (Trust Fund), a claims-servicing public entity risk pool for healthcare professional liability protection. The Trust Fund services professional liability claims, managing separate accounts for each participant from which the losses of that participant are paid. Although participant assessments are determined on an actuarial basis, ultimate liability for claims remains with the participants and, accordingly, the insurance risks are not transferred to the Trust Fund.

The Trust Fund is an unincorporated entity created by Chapter 116, Article 26, of the *North Carolina General Statutes* and The University of North Carolina Board of Governors Resolution of June 9, 1978. The Trust Fund is a self-insurance program established to provide professional medical malpractice liability covering the University of North Carolina Hospitals at Chapel Hill (UNC Hospitals) and The University of North Carolina at Chapel Hill Faculty Physicians (UNC Faculty Physicians), the program participants. The Trust Fund provides coverage for program participants and individual health care practitioners working as employees, agents, or officers of program participants. The Trust Fund is exempt from federal and state income taxes and is not subject to regulation by the North Carolina Department of Insurance.

Participation in the Trust Fund is open to the University of North Carolina, any constituent institution of the University of North Carolina, UNC Hospitals, and any health care institution, agency or entity that has an affiliation agreement with the University of North Carolina, with a constituent institution of the University of North Carolina, or with UNC Hospitals. Only UNC Faculty Physicians and UNC Hospitals have participated in the Trust Fund to date. Participants provide management and administrative services to the Trust Fund at no cost.

The Trust Fund is governed by the Liability Insurance Trust Fund Council (the Council). The Council consists of 13 members as follows: one member each appointed by the State Attorney General, the State Insurance Commissioner, the Director of the Office of State Budget and Management, the State Treasurer (each serving at the pleasure of the appointer); and nine members appointed by the UNC System's Board of Governors.

The Trust Fund establishes claim liabilities based on estimates of the ultimate cost of claims (including future expenses and claim adjustment expenses) that have been reported but not settled and of claims incurred but not reported. Claim liabilities are recomputed annually based on an independent actuary's study to produce current estimates that reflect recent settlements, claims frequency, inflation, and other factors. Participant assessments are determined at a level to fund claim liabilities, discounted for future investment earnings. Each participant is required by statute to maintain a fund balance of \$100,000 at all times. Participants are subject to additional premium assessments in the event of deficiencies.

For the period July 1, 2019 through June 30, 2020, the Trust Fund provided coverage on an occurrence basis of \$3,000,000 per individual and \$7,000,000 in the aggregate per claim. Effective July 1, 2006, in lieu of purchasing

commercial reinsurance, participants contributed approximately \$10,000,000 to a reimbursement fund for future losses. Prior to July 1, 2006, the Trust Fund entered into an excess of loss agreement with an unaffiliated reinsurer.

For the fiscal year ending June 30, 2020, the Trust Fund purchased a direct insurance policy to cover the first \$1,000,000 per occurrence and \$3,000,000 in the aggregate for dental residents. *North Carolina General Statutes* Chapter 116 was amended during 1987 to authorize the Trust Fund to borrow necessary amounts up to \$30,000,000, in the event that the Trust Fund may have insufficient funds to pay existing and future claims. Any such borrowing would be repaid from the assets and revenues of program participants. No line of credit or borrowing has been established pursuant to this authorization. The Council believes adequate funds are on deposit in the Trust Fund to meet estimated losses based upon the results of the independent actuary's report.

The Trust Fund has purchased annuity contracts to settle claims for which the claimant has signed an agreement releasing the Fund from further obligation. The related claim liabilities have been removed from estimated malpractice costs.

The Council may choose to terminate the Trust Fund, or the respective participants may choose to terminate their participation. In the event of such termination by either the Council or a participant, an updated actuarial study will be performed to determine amounts due to or from the participants based on loss experience up to the date of termination.

At June 30, 2020, University assets in the Trust Fund totaled \$18,174,273, while University liabilities totaled \$15,887,144 resulting in net position of \$2,287,129.

Additional disclosures about the funding status and obligations of the Trust Fund are set forth in the audited financial statements of the Liability Insurance Trust Fund. Copies of this report may be obtained from the University of North Carolina Health Care System, 5221 Paramount Parkway, Suite 230, Morrisville, NC 27650.

State Health Plan - University employees are provided comprehensive major medical care benefits. Coverage is funded by contributions to the State Health Plan (Plan), a discretely presented component unit of the State of North Carolina. The Plan is funded by employer contributions. Certain plans also require contributions from employees. The Plan has contracted with third parties to process claims. See Note 17, Other Postemployment Benefits, for additional information regarding retiree health benefits.

Death Benefit Plan of North Carolina - Term life insurance (death benefits) of \$25,000 to \$50,000 is provided to eligible workers who enroll in the Teachers' and State Employees' Retirement System. This Death Benefit Plan is administered by the State Treasurer and funded via employer contributions. The employer contribution rate was 0.16% for the current fiscal year.

Disability Income Plan - Short-term and long-term disability benefits are provided to University employees through the Disability Income Plan of North

Carolina (DIPNC), part of the State’s Pension and Other Employee Benefit Trust Funds. Short-term benefits are paid by the University up to the first six months of benefits and reimbursed by DIPNC for any additional short-term benefits. As discussed in Note 17, long-term disability benefits are payable as other postemployment benefits from DIPNC after the conclusion of the short-term disability period or after salary continuation payments cease, whichever is later, for as long as an employee is disabled.

Additional details on the state-administered risk management programs are disclosed in the State’s *Comprehensive Annual Financial Report*, issued by the Office of the State Controller.

NOTE 19 - COMMITMENTS AND CONTINGENCIES

A. Commitments - The University has established an encumbrance system to track its outstanding commitments on construction projects. Outstanding commitments on construction contracts were \$97,044,092 at June 30, 2020.

The UNC Investment Fund has entered into agreements with hedge funds, private equity limited partnerships, and real assets limited partnerships to invest capital. These agreements represent the funding of capital over a designated period of time and are subject to adjustments. As of June 30, 2020, the UNC Investment Fund had approximately \$1,337,073,849 in unfunded committed capital. There was also unfunded committed capital related to other private equity investments outside of the UNC Investment Fund noted above in the amount of \$16,157,829 as of June 30, 2020.

B. Pending Litigation and Claims - The University is a party to litigation and claims in the ordinary course of its operations. For litigation and claims wherein it is not possible to predict the ultimate outcome, no provision for any liability has been made in the financial statements. University management is of the opinion that the liability, if any, for any of these matters will not have a material adverse effect on the financial position of the University.

C. Other Contingent Receivables - The University has received notification of other gifts and grants for which funds have not been disbursed by the resource provider and for which conditions attached to the gift or grant have not been satisfied or, in the case of permanent endowments, cannot begin to be satisfied. In accordance with accounting principles generally accepted in the United States of America, these amounts have not been recorded on the accompanying financial statements. The purpose and amount of other contingent receivables at June 30, 2020 are as follows:

| Purpose | Amount |
|---------------------------------|---------------|
| Pledges to Permanent Endowments | \$ 47,879,220 |

NOTE 20 - THE CORONAVIRUS PANDEMIC EMERGENCY

In response to the coronavirus pandemic emergency, actions were taken by the University in March 2020 to reduce the spread of the coronavirus disease (COVID-19) and to provide for the health and safety of students, faculty, and staff.

On March 27, 2020, the Coronavirus Aid, Relief, and Economic Security Act (CARES Act) was signed into law. The CARES Act included various relief and recovery aid programs to address COVID-19 expenses and the costs incurred and revenue lost due to the actions taken to reduce the spread of COVID-19. For the University, these programs included (1) the Coronavirus Relief Fund (CRF) administered by the U.S. Department of Treasury and made available directly to state and local governments, (2) the Higher Education Emergency Relief Fund (HEERF) administered by the U.S. Department of Education and made available directly to universities and colleges, (3) the Provider Relief Fund (PRF) administered by the U.S. Department of Health and Human Resources made directly to health care providers, and (4) additional funding for the Disaster Relief Fund (DRF) administered by the Federal Emergency Management Agency (FEMA).

The revenues from these programs are not significant to the University and are contingent upon meeting the terms and conditions of the programs and signed agreements with the funding agencies, are recognized when qualifying expenditures are incurred, funds are used for intended purposes, and other eligibility requirements are met, and are reported in the following revenue caption of the financial statements:

Nonoperating Revenue:

Federal Aid - COVID-19 - This caption includes funds received from the CARES Act, other than the CRF funds appropriated in House Bill 1043, and the FEMA DRF funds, as follows:

The HEERF funds provided include: (1) a student allocation to provide for emergency financial aid grants to students for expenses related to the disruption of campus operations due to COVID-19, and (2) an institutional allocation to cover costs associated with significant changes to the delivery of instruction due to COVID-19 including the recovery of revenue lost due to those changes. The HEERF funds must be expended within one year of the grant award notification date.

The PRF funds provided include distributions to reimburse the University's Faculty Practice for health care-related expenses or lost revenues not otherwise reimbursed that are directly attributable to COVID-19.

The FEMA DRF funds are provided for emergency protective measures and related management costs related to the COVID-19 emergency and are on-going throughout the emergency event.

NOTE 21 - RELATED PARTIES

There are 12 separately incorporated nonprofit foundations associated with the University. These foundations are The Botanical Garden Foundation, Inc., The Dental Alumni Association, Inc., The Dental Foundation of North Carolina, Inc., The Educational Foundation, Inc., The General Alumni Association, The School of Government Foundation, Inc., The Morehead-Cain Scholarship Fund, UNC Eshelman School of Pharmacy Foundation, The School of Media and Journalism Foundation of North Carolina, Inc., The University of North Carolina at Chapel Hill Public Health Foundation, Incorporated, UNC Law Foundation, Inc., and Carolina for Kibera, Inc.

Some of these organizations serve, in conjunction with the University's component units (See Note 1A), as the primary fundraising arm of the University through which individuals, corporations, and other organizations support University programs by providing scholarships, fellowships, faculty salary supplements, and unrestricted funds to specific colleges and the University's overall academic environment. The alumni associations provide educational opportunities or other services to alumni. The University's financial statements do not include the assets, liabilities, net position, or operational transactions of these organizations, except for support from each organization to the University. This support totaled \$20,055,307 for the year ended June 30, 2020.

NOTE 22 - INVESTMENT IN JOINT VENTURES

The University is a member of the Southern Observatory for Astronomical Research Consortium (SOAR), a joint venture accounted for under the equity method and valued at \$9,895,456. The University is partners with Michigan State University, U.S. NSF's National Optical-Infrared Astronomy Research Laboratory, and the Ministry of Science and Technology of the Federal Republic of Brazil. SOAR designed, constructed, and now operates a 4.1-meter telescope with instrumentation and related support buildings located at Cerro Pachon, a mountain in central Chile. The SOAR agreement allocates the University 16.7% of observing time until 2025. The audited financial statements for SOAR may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

The University is a member of the Carolina Vascular Access Center, a joint venture accounted for under the equity method and valued at \$535,813. The University is partners with Capital Nephrology and Durham Nephrology and has a 40.0% share. This joint venture provides dialysis services to patients in Orange, Durham and Wake counties. The audited financial statements for the joint venture may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

The University is a member of the Carolina Behavioral Health Alliance, a joint venture accounted for under the equity method and valued at \$410,159. The University is partners with Wake Forest Baptist Medical Center and East Carolina University and has a 33.3% share. The joint venture specializes in managed mental health benefit plans serving the Winston-Salem and Charlotte

areas. The audited financial statements for the joint venture may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270 or by calling (919) 962-1370.

The University is a member of Qura Therapeutics, a joint venture accounted for under the equity method and valued at \$3,309,757. The University entered into this joint-venture, an equal partnership agreement, in May 2015 with GSK. In mid-October 2018 GSK transferred their shares to ViiV Healthcare. The terms and conditions of the May 2015 agreement remain the same. The University and ViiV, through Qura Therapeutics, provides financial and material support to the partnership. The audited financial statements for the joint venture may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

The University is a member of TRO Ventures, LLC, a joint venture accounted for under the equity method and valued at \$1,843,160. The University is partners with UNC Hospitals and Rex Healthcare, Inc. The University has a 31.85% share of TRO Ventures, LLC. The joint venture provides radiation therapy services to patients in Raleigh and Wake County, North Carolina and the surrounding areas. The audited financial statements may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

The University is a member of WR Imaging, LLC, a joint venture accounted for under the equity method and valued at \$1,461,400. The University is partners with Rex Hospital, Inc. The University has a 2.0% share of WR Imaging, LLC. The joint venture provides outpatient imaging services to patients in Wake County and the surrounding areas, including through the engagement of professional clinical services provided by the University's School of Medicine Department of Radiology. The audited financial statements may be obtained from the University Controller's Office, Campus Box 1270, Chapel Hill, NC 27599-1270, or by calling (919) 962-1370.

NOTE 23 - BLENDED COMPONENT UNITS

Condensed combining information for the University's blended component units for the year ended June 30, 2020, is presented as follows:

Condensed Statement of Net Position
June 30, 2020

| | The University of North Carolina at Chapel Hill | UNC Investment Fund, LLC | The University of North Carolina at Chapel Hill Foundation Investment Fund, Inc. | The University of North Carolina at Chapel Hill Foundation, Inc. | UNC Intermediate Pool, LLC | Other Blended Component Units* | Eliminations | Total |
|---|---|--------------------------|--|--|----------------------------|--------------------------------|---------------------|------------------|
| ASSETS | | | | | | | | |
| Current Assets | \$ 1,213,468,157 | \$ 344,742,409 | \$ 0 | \$ 53,389,999 | \$ 36,105,593 | \$ 87,238,315 | \$ 0 | \$ 1,734,944,473 |
| Capital Assets, Net | 2,950,422,459 | | | 97,551,322 | | 2,533,656 | | 3,050,507,437 |
| Other Noncurrent Assets | 3,080,703,292 | 6,488,635,478 | 3,642,447,354 | 433,370,039 | 573,464,607 | 160,845,379 | (7,846,675,307) | 6,532,790,842 |
| Total Assets | 7,244,593,908 | 6,833,377,887 | 3,642,447,354 | 584,311,360 | 609,570,200 | 250,617,350 | (7,846,675,307) | 11,318,242,752 |
| TOTAL DEFERRED OUTFLOWS OF RESOURCES | | | | | | | | |
| | 668,614,033 | | | | | | | 668,614,033 |
| LIABILITIES | | | | | | | | |
| Current Liabilities | 439,445,464 | 15,618,747 | 2,328,673 | 8,647,122 | 1,334,533 | 12,949,308 | 6,380,935 | 486,704,782 |
| Long-Term Liabilities, Net | 3,889,875,168 | | | 114,453,860 | | 5,284,379 | | 4,009,613,407 |
| Other Noncurrent Liabilities | 1,018,298,379 | | | | | 9,490,149 | 3,213,057,254 | 4,240,845,782 |
| Total Liabilities | 5,347,619,011 | 15,618,747 | 2,328,673 | 123,100,982 | 1,334,533 | 27,723,836 | 3,219,438,189 | 8,737,163,971 |
| TOTAL DEFERRED INFLOWS OF RESOURCES | | | | | | | | |
| | 962,496,367 | | | 17,281,779 | | | | 979,778,146 |
| NET POSITION | | | | | | | | |
| Net Investment in Capital Assets | 1,635,103,702 | | | 44,649,835 | | 2,533,656 | | 1,682,287,193 |
| Restricted - Nonexpendable | 604,955,472 | 6,817,759,140 | 3,640,118,681 | 202,789,162 | 608,235,667 | 106,180,960 | (11,066,113,496) | 913,925,586 |
| Restricted - Expendable | 1,289,331,762 | | | 151,351,708 | | 68,458,016 | | 1,509,141,486 |
| Unrestricted | (1,926,298,373) | | | 45,137,894 | | 45,720,882 | | (1,835,439,597) |
| Total Net Position | \$ 1,603,092,563 | \$ 6,817,759,140 | \$ 3,640,118,681 | \$ 443,928,599 | \$ 608,235,667 | \$ 222,893,514 | \$ (11,066,113,496) | \$ 2,269,914,668 |

*Other Blended Component Units include UNC Management Company, Inc., The Kenan-Flagler Business School Foundation, WUNC Public Radio, LLC, HVPV Holdings, LLC, and Carolina Research Ventures, LLC.

Condensed Statement of Revenues, Expenses, and Changes in Net Position
For the Fiscal Year Ended June 30, 2020

| | The University of North Carolina at Chapel Hill | UNC Investment Fund, LLC | The University of North Carolina at Chapel Hill Foundation Investment Fund, Inc. | The University of North Carolina at Chapel Hill Foundation, Inc. | UNC Intermediate Pool, LLC | Other Blended Component Units* | Eliminations | Total |
|---|---|--------------------------|--|--|----------------------------|--------------------------------|---------------------|------------------|
| OPERATING REVENUES | | | | | | | | |
| Student Tuition and Fees, Net | \$ 395,348,766 | \$ 0 | \$ 0 | \$ 0 | \$ 0 | \$ 5,000,000 | \$ 0 | \$ 400,348,766 |
| Grants and Contracts | 887,343,260 | | | | | | | 887,343,260 |
| Sales and Services, Net | 893,827,590 | | | 12,347,850 | | 19,930,459 | | 926,105,899 |
| Other Operating Revenues | 12,436,016 | | | | | 758,444 | | 13,194,460 |
| Total Operating Revenues | 2,188,955,632 | | | 12,347,850 | | 25,688,903 | | 2,226,992,385 |
| OPERATING EXPENSES | | | | | | | | |
| Operating Expenses | 2,920,804,628 | 1,648,333 | 38,501,015 | 12,931,907 | 119,560 | 35,938,757 | (873,898) | 3,009,070,302 |
| Depreciation/Amortization | 178,195,510 | | | 1,424,319 | | 98,042 | | 179,717,871 |
| Total Operating Expenses | 3,099,000,138 | 1,648,333 | 38,501,015 | 14,356,226 | 119,560 | 36,036,799 | (873,898) | 3,188,788,173 |
| Operating Income (Loss) | (910,044,506) | (1,648,333) | (38,501,015) | (2,008,376) | (119,560) | (10,347,896) | 873,898 | (961,795,788) |
| NONOPERATING REVENUES (EXPENSES) | | | | | | | | |
| Investment Income, Net | 72,039,199 | 195,581,317 | 93,448,687 | 8,554,698 | 9,084,092 | 4,839,824 | (288,087,664) | 95,460,153 |
| Other, Net | 790,347,159 | (57,463,947) | (54,180,946) | 1,350,496 | 9,055,403 | 18,264,519 | 131,958,570 | 839,331,254 |
| Net Nonoperating Revenues (Expenses) | 862,386,358 | 138,117,370 | 39,267,741 | 9,905,194 | 18,139,495 | 23,104,343 | (156,129,094) | 934,791,407 |
| Income (Loss) Before Other Revenues | (47,658,148) | 136,469,037 | 766,726 | 7,896,818 | 18,019,935 | 12,756,447 | (155,255,196) | (27,004,381) |
| Capital Appropriations | 1,452,000 | | | | | | | 1,452,000 |
| Capital Contributions | 20,629,312 | | | | | | | 20,629,312 |
| Additions to Endowments | 12,390,506 | | | | | 4,353,406 | (510) | 16,743,402 |
| Total Other Revenues (Expenses) | 34,471,818 | | | | | 4,353,406 | (510) | 38,824,714 |
| Increase (Decrease) in Net Position | (13,186,330) | 136,469,037 | 766,726 | 7,896,818 | 18,019,935 | 17,109,853 | (155,255,706) | 11,820,333 |
| NET POSITION | | | | | | | | |
| Net Position, July 1, 2019, as Restated | 1,616,278,893 | 6,817,290,103 | 3,639,351,955 | 436,031,781 | 590,215,732 | 205,783,661 | (10,910,857,790) | 2,258,094,335 |
| Net Position, June 30, 2020 | \$ 1,603,092,563 | \$ 6,817,759,140 | \$ 3,640,118,681 | \$ 443,928,599 | \$ 608,235,667 | \$ 222,893,514 | \$ (11,066,113,496) | \$ 2,269,914,668 |

*Other Blended Component Units include UNC Management Company, Inc., The Kenan-Flagler Business School Foundation, WUNC Public Radio, LLC, HVPV Holdings, LLC, and Carolina Research Ventures, LLC.

Condensed Statement of Cash Flows
June 30, 2020

| | The University of North Carolina at Chapel Hill | The University of North Carolina at Chapel Hill Foundation, Inc. | Other Blended Component Units* | Total |
|---|--|--|-----------------------------------|-------------------------|
| Net Cash Used by Operating Activities | \$ (832,411,117) | \$ (14,750,582) | \$ (8,169,153) | \$ (855,330,852) |
| Net Cash Provided by Noncapital Financing Activities | 1,131,608,779 | 11,425,081 | 17,876,100 | 1,160,909,960 |
| Net Cash Used by Capital and Related Financing Activities | (155,368,846) | (7,562,618) | (372,458) | (163,303,922) |
| Net Cash Provided (Used) by Investing Activities | 54,836,909 | 5,327,667 | (1,151,660) | 59,012,916 |
| Net Increase (Decrease) in Cash and Cash Equivalents | 198,665,725 | (5,560,452) | 8,182,829 | 201,288,102 |
| Cash and Cash Equivalents, July 1, 2019 | 708,490,022 | 61,091,124 | 48,879,350 | 818,460,496 |
| Cash and Cash Equivalents, June 30, 2020 | <u>\$ 907,155,747</u> | <u>\$ 55,530,672</u> | <u>\$ 57,062,179</u> | <u>\$ 1,019,748,598</u> |

*Other Blended Component Units include UNC Management Company, Inc., The Kenan-Flagler Business School Foundation, WUNC Public Radio, LLC, HVPV Holdings, LLC, and Carolina Research Ventures, LLC.

NOTE 24 - CHANGES IN FINANCIAL ACCOUNTING AND REPORTING

For the fiscal year ended June 30, 2020, the University implemented the following pronouncement issued by the Governmental Accounting Standards Board (GASB):

GASB Statement No. 89, Accounting for Interest Costs Incurred before the End of a Construction Period

GASB Statement No. 95, Postponement of the Effective Dates of Certain Authoritative Guidance

GASB Statement No. 89 establishes accounting requirements for interest costs incurred before the end of a construction period. Interest costs incurred before the end of a construction period are to be recognized as an expense in the period in which the costs are incurred for financial statements prepared using the economic resources measurement focus. Interest costs incurred before the end of a construction period will not be included in the historical cost of a capital asset reported in a business-type activity. The requirements of this Statement have been applied prospectively.

GASB Statement No. 95 provides temporary relief to governments and other stakeholders in light of the COVID-19 pandemic by postponing the effective dates of certain provisions in Statements and Implementation Guides that first became effective or are scheduled to become effective for periods beginning after June 15, 2018.

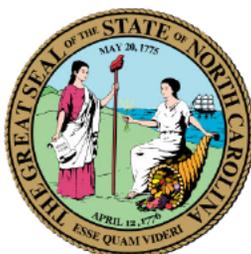
NOTE 25 - NET POSITION RESTATEMENTS

As of July 1, 2019, net position as previously reported was restated as follows:

| | <u>Amount</u> |
|--|-------------------------|
| July 1, 2019 Net Position as Previously Reported | \$ 2,311,590,041 |
| Restatements: | |
| Blending the University of North Carolina at Chapel Hill School of Nursing Foundation, Inc. | 12,766,203 |
| Removing Previous Blended - The University of North Carolina at Chapel Hill Law Foundation, Inc. | <u>(66,261,909)</u> |
| July 1, 2019 Net Position as Restated | <u>\$ 2,258,094,335</u> |

NOTE 26 - SUBSEQUENT EVENTS

The Board of Governors, on behalf of the University, anticipates issuing a \$30.0 million special obligation General Revenue Bond later in fiscal year 2020-21 to fund the purchase of real property improvements for athletics facilities from the Educational Foundation, Inc. The General Revenue Bond was approved by a resolution of the Board on January 25, 2019. The specific terms of the transaction are to be determined at a later date.



REQUIRED SUPPLEMENTARY INFORMATION

**The University of North Carolina at Chapel Hill
Required Supplementary Information
Schedule of the Proportionate Share of the Net Pension Liability
Cost-Sharing, Multiple-Employer, Defined Benefit Pension Plan
Last Seven Fiscal Years***

Exhibit C-1

| Teachers' and State Employees' Retirement System | 2020 | 2019 | 2018 | 2017 |
|---|----------------|----------------|----------------|----------------|
| Proportionate Share Percentage of Collective Net Pension Liability | 3.17570% | 3.17515% | 3.11981% | 3.09361% |
| Proportionate Share of TSERS Collective Net Pension Liability | \$ 329,223,453 | \$ 316,120,760 | \$ 247,539,484 | \$ 284,334,716 |
| Covered Payroll | \$ 507,759,996 | \$ 498,130,872 | \$ 480,647,184 | \$ 460,471,749 |
| Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll | 64.84% | 63.46% | 51.50% | 61.75% |
| Plan Fiduciary Net Position as a Percentage of the Total Pension Liability | 87.56% | 87.61% | 89.51% | 87.32% |
| | 2016 | 2015 | 2014 | |
| Proportionate Share Percentage of Collective Net Pension Liability | 3.12227% | 3.22422% | 3.20010% | |
| Proportionate Share of TSERS Collective Net Pension Liability | \$ 115,061,832 | \$ 37,801,432 | \$ 194,278,679 | |
| Covered Payroll | \$ 451,281,663 | \$ 457,366,996 | \$ 460,281,538 | |
| Proportionate Share of the Net Pension Liability as a Percentage of Covered Payroll | 25.50% | 8.27% | 42.21% | |
| Plan Fiduciary Net Position as a Percentage of the Total Pension Liability | 94.64% | 98.24% | 90.60% | |

Note: Information is presented for all years that were measured in accordance with the requirements of GASB Statement No. 68, *Accounting and Financial Reporting for Pensions - An Amendment of GASB Statement No. 27*, as amended.

* The amounts presented for each fiscal year were determined as of the prior fiscal year ending June 30.

**The University of North Carolina at Chapel Hill
Required Supplementary Information
Schedule of University Contributions
Cost-Sharing, Multiple-Employer, Defined Benefit Pension Plan
Last Ten Fiscal Years**

Exhibit C-2

| Teachers' and State Employees' Retirement System | 2020 | 2019 | 2018 | 2017 | 2016 |
|---|----------------|----------------|----------------|----------------|----------------|
| Contractually Required Contribution | \$ 65,637,943 | \$ 62,403,703 | \$ 53,698,508 | \$ 47,968,589 | \$ 42,133,165 |
| Contributions in Relation to the Contractually Determined Contribution | 65,637,943 | 62,403,703 | 53,698,508 | 47,968,589 | 42,133,165 |
| Contribution Deficiency (Excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered Payroll | \$ 506,075,117 | \$ 507,759,996 | \$ 498,130,872 | \$ 480,647,184 | \$ 460,471,749 |
| Contributions as a Percentage of Covered Payroll | 12.97% | 12.29% | 10.78% | 9.98% | 9.15% |
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Contractually Required Contribution | \$ 41,292,272 | \$ 39,745,192 | \$ 38,341,452 | \$ 33,975,672 | \$ 23,308,729 |
| Contributions in Relation to the Contractually Determined Contribution | 41,292,272 | 39,745,192 | 38,341,452 | 33,975,672 | 23,308,729 |
| Contribution Deficiency (Excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered Payroll | \$ 451,281,663 | \$ 457,366,996 | \$ 460,281,538 | \$ 456,662,258 | \$ 472,793,699 |
| Contributions as a Percentage of Covered Payroll | 9.15% | 8.69% | 8.33% | 7.44% | 4.93% |

Note: Changes in benefit terms, methods, and assumptions are presented in the Notes to Required Supplementary Information (RSI) schedule following the pension RSI tables.

The University of North Carolina at Chapel Hill
Notes to Required Supplementary Information
Schedule of University Contributions
Cost-Sharing, Multiple-Employer, Defined Benefit Pension Plan
For the Fiscal Year Ended June 30, 2020

Changes of Benefit Terms:

| | <u>Cost of Living Increase</u> | | | | | | | | | |
|--|--------------------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| | <u>2018</u> | <u>2017</u> | <u>2016</u> | <u>2015</u> | <u>2014</u> | <u>2013</u> | <u>2012</u> | <u>2011</u> | <u>2010</u> | <u>2009</u> |
| Teachers' and State Employees' Retirement System | N/A | 1.00% | N/A | N/A | N/A | 1.00% | N/A | N/A | N/A | 2.20% |

Changes of Assumptions: In 2015, the North Carolina Retirement Systems' consulting actuaries performed the quinquennial investigation of each retirement system's actual demographic and economic experience (known as the "Experience Review"). The Experience Review provides the basis for selecting the actuarial assumptions and methods used to determine plan liabilities and funding requirements. The most recent Experience Review examined each plan's experience during the period between January 1, 2010, and December 31, 2014. Based on the findings, the Board of Trustees of the Teachers' and State Employees' Retirement System adopted a number of new actuarial assumptions and methods. The most notable changes to the assumptions include updates to the mortality tables and the mortality improvement projection scales to reflect reduced rates of mortality and significant increases in mortality improvements. These assumptions were adjusted to reflect the mortality projection scale MP-2015, released by the Society of Actuaries in 2015. In addition, the assumed rates of retirement, salary increases, and rates of termination from active employment were reduced to more closely reflect actual experience. The discount rate for the Teachers' and State Employees' Retirement System was lowered from 7.25% to 7.20% for the December 31, 2016 valuation. For the December 31, 2017 valuation, the discount rate was lowered to 7.00%.

The Board of Trustees also adopted a new asset valuation method for the Teachers' and State Employees' Retirement System. For determining plan funding requirements, the plan now uses a five-year smoothing method with a reset of the actuarial value of assets to market value as of December 31, 2014.

The Notes to Required Supplementary Information reflect the most recent available information included in the State of North Carolina's 2019 *Comprehensive Annual Financial Report*.

N/A - Not Applicable

The University of North Carolina at Chapel Hill
Required Supplementary Information
Schedule of the Proportionate Share of the Net OPEB Liability or Asset
Cost-Sharing, Multiple-Employer, Defined Benefit OPEB Plans
Last Four Fiscal Years*

Exhibit C-3

| Retiree Health Benefit Fund | 2020 | 2019 | 2018 | 2017 |
|--|------------------|------------------|------------------|------------------|
| Proportionate Share Percentage of Collective Net OPEB Liability | 6.90922% | 6.76376% | 6.36069% | 7.24839% |
| Proportionate Share of Collective Net OPEB Liability | \$ 2,186,043,474 | \$ 1,926,872,329 | \$ 2,085,455,588 | \$ 3,153,296,023 |
| Covered Payroll | \$ 1,205,200,371 | \$ 1,145,860,475 | \$ 1,091,925,969 | \$ 1,058,316,661 |
| Proportionate Share of the Net OPEB Liability as a Percentage of Covered Payroll | 181.38% | 168.16% | 190.99% | 297.95% |
| Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability | 4.40% | 4.40% | 3.52% | 2.41% |
| Disability Income Plan of North Carolina | | | | |
| Proportionate Share Percentage of Collective Net OPEB Asset | 6.92313% | 6.91392% | 6.80968% | 6.66043% |
| Proportionate Share of Collective Net OPEB Asset | \$ 2,987,331 | \$ 2,100,172 | \$ 4,162,076 | \$ 4,163,127 |
| Covered Payroll | \$ 1,205,200,371 | \$ 1,145,860,475 | \$ 1,091,925,969 | \$ 1,058,316,661 |
| Proportionate Share of the Net OPEB Asset as a Percentage of Covered Payroll | 0.25% | 0.18% | 0.38% | 0.39% |
| Plan Fiduciary Net Position as a Percentage of the Total OPEB Liability | 113.00% | 108.47% | 116.23% | 116.06% |

Note: Information is presented for all years that were measured in accordance with the requirements of GASB Statement No. 75, *Accounting and Financial Reporting for Postemployment Benefits Other Than Pensions*, as amended.

* The amounts presented for each fiscal year were determined as of the prior fiscal year ending June 30.

The University of North Carolina at Chapel Hill
Required Supplementary Information
Schedule of University Contributions
Cost-Sharing, Multiple-Employer, Defined Benefit OPEB Plans
Last Ten Fiscal Years

Exhibit C-4

| Retiree Health Benefit Fund | 2020 | 2019 | 2018 | 2017 | 2016 |
|--|------------------|------------------|------------------|------------------|------------------|
| Contractually Required Contribution | \$ 80,006,887 | \$ 75,566,063 | \$ 69,324,559 | \$ 63,440,899 | \$ 59,265,733 |
| Contributions in Relation to the Contractually Determined Contribution | 80,006,887 | 75,566,063 | 69,324,559 | 63,440,899 | 59,265,733 |
| Contribution Deficiency (Excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered Payroll | \$ 1,236,582,485 | \$ 1,205,200,371 | \$ 1,145,860,475 | \$ 1,091,925,969 | \$ 1,058,316,661 |
| Contributions as a Percentage of Covered Payroll | 6.47% | 6.27% | 6.05% | 5.81% | 5.60% |
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Contractually Required Contribution | \$ 55,554,649 | \$ 53,247,759 | \$ 51,582,373 | \$ 47,027,478 | \$ 46,527,281 |
| Contributions in Relation to the Contractually Determined Contribution | 55,554,649 | 53,247,759 | 51,582,373 | 47,027,478 | 46,527,281 |
| Contribution Deficiency (Excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered Payroll | \$ 1,011,924,390 | \$ 986,069,611 | \$ 973,252,321 | \$ 940,549,560 | \$ 949,536,347 |
| Contributions as a Percentage of Covered Payroll | 5.49% | 5.40% | 5.30% | 5.00% | 4.90% |
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Disability Income Plan of North Carolina | | | | | |
| Contractually Required Contribution | \$ 1,236,582 | \$ 1,687,281 | \$ 1,604,205 | \$ 4,149,319 | \$ 4,339,098 |
| Contributions in Relation to the Contractually Determined Contribution | 1,236,582 | 1,687,281 | 1,604,205 | 4,149,319 | 4,339,098 |
| Contribution Deficiency (Excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered Payroll | \$ 1,236,582,485 | \$ 1,205,200,371 | \$ 1,145,860,475 | \$ 1,091,925,969 | \$ 1,058,316,661 |
| Contributions as a Percentage of Covered Payroll | 0.10% | 0.14% | 0.14% | 0.38% | 0.41% |
| | 2015 | 2014 | 2013 | 2012 | 2011 |
| Contractually Required Contribution | \$ 4,148,890 | \$ 4,338,706 | \$ 4,282,310 | \$ 4,890,858 | \$ 4,937,589 |
| Contributions in Relation to the Contractually Determined Contribution | 4,148,890 | 4,338,706 | 4,282,310 | 4,890,858 | 4,937,589 |
| Contribution Deficiency (Excess) | \$ - | \$ - | \$ - | \$ - | \$ - |
| Covered Payroll | \$ 1,011,924,390 | \$ 986,069,611 | \$ 973,252,321 | \$ 940,549,560 | \$ 949,536,347 |
| Contributions as a Percentage of Covered Payroll | 0.41% | 0.44% | 0.44% | 0.52% | 0.52% |

Note: Changes in benefit terms, methods, and assumptions are presented in the Notes to Required Supplementary Information (RSI) schedule following the OPEB RSI tables.

**The University of North Carolina at Chapel Hill
Notes to Required Supplementary Information
Schedule of University Contributions
Cost-Sharing, Multiple-Employer, Defined Benefit OPEB Plans
For the Fiscal Year Ended June 30, 2020**

Changes of Benefit Terms: Effective January 1, 2016, benefit terms related to copays, out-of-pocket maximums, and deductibles were changed for three of four options of the Retiree Health Benefit Fund (RHBF). Most of the changes were an increase in the amount from the previous year.

Effective January 1, 2017, benefit terms related to copays, coinsurance maximums, out-of-pocket maximums, and deductibles were changed for two of four options of the RHBF. Most of the changes were an increase in the amount from the previous year.

Effective January 1, 2019, benefit terms related to copays, out-of-pocket maximums, and deductibles were changes for one of four options of the RHBF. Out of pocket maximums increased while certain specialist copays decreased related to option benefits.

Additionally, the December 31, 2017 Disability Income Plan of North Carolina (DIPNC) actuarial valuation includes a liability for the State's potential reimbursement of health insurance premiums paid by employers during the second six months of the short-term disability benefit period.

Method and Assumptions Used in Calculations of Actuarially Determined Contributions: An actuarial valuation is performed for each plan each year. The actuarially determined contribution rates in the Schedule of University Contributions are calculated by the actuary as a projection of the required employer contribution for the fiscal year beginning six months following the date of the valuation results for the RHBF. The actuarially determined contribution rates in the Schedule of University Contributions are calculated by the actuary as a projection of the required employer contribution for the fiscal year beginning 18 months following the date of the valuation results for the DIPNC. See Note 17 for more information on the specific assumptions for each plan. The actuarially determined contributions for those items with covered payroll were determined using the actuarially determined contribution rate from the actuary and covered payroll as adjusted for timing differences and other factors such as differences in employee class. Other actuarially determined contributions are disclosed in the schedule as expressed by the actuary in reports to the plans.

Changes of Assumptions: In 2015, the North Carolina Retirement Systems' consulting actuaries performed the quinquennial investigation of each retirement system's actual demographic and economic experience (known as the "Experience Review"). The Experience Review provides the basis for selecting the actuarial assumptions and methods used to determine plan liabilities and funding requirements. The most recent experience review examined each plan's experience during the period between January 1, 2010, and December 31, 2014. Based on the findings, the Boards of Trustees of the Teachers' and State Employees' Retirement System and the State Health Plan adopted a number of new actuarial assumptions and methods for the RHBF and the DIPNC. The most notable changes to the assumptions include updates to the mortality tables and the mortality improvement projection scales to reflect reduced rates of mortality and significant increases in mortality improvements. These assumptions were adjusted to reflect the mortality projection scale MP-2015, released by the Society of Actuaries in 2015. In addition, the assumed rates of retirement and rates of termination from active employment were reduced to more closely reflect actual experience.

For the actuarial valuation measured as of June 30, 2019, the discount rate for the RHBF was updated to 3.5%. Disability rates were adjusted to the non-grandfathered assumptions used in the Teachers' and State Employees' Retirement System actuarial valuation to better align with the anticipated incidence of disability. Medical and prescription drug claims were changed based on most recent experience, and medical and prescription drug trend rates were changed to the current schedule. Enrollment assumptions were updated to model expected migrations among RHBF plan options over the next four years. For the DIPNC actuarial valuation as of December 31, 2018, for individuals who may become disabled in the future, the Social Security disability income benefit (which is an offset for the DIPNC benefit) was updated to be based on assumed Social Security calculation parameters in the year of disability.

The Notes to Required Supplementary Information reflect the most recent available information included in the State of North Carolina's 2019 *Comprehensive Annual Financial Report*.



INDEPENDENT AUDITOR'S REPORT

STATE OF NORTH CAROLINA
Office of the State Auditor



Beth A. Wood, CPA
State Auditor

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**INDEPENDENT AUDITOR'S REPORT
ON INTERNAL CONTROL OVER FINANCIAL REPORTING
AND ON COMPLIANCE AND OTHER MATTERS BASED ON AN
AUDIT OF FINANCIAL STATEMENTS PERFORMED IN ACCORDANCE WITH
GOVERNMENT AUDITING STANDARDS**

Board of Trustees
The University of North Carolina at Chapel Hill
Chapel Hill, North Carolina

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of The University of North Carolina at Chapel Hill (University), a constituent institution of the multi-campus University of North Carolina System, which is a component unit of the State of North Carolina, and its discretely presented component units, as of and for the year ended June 30, 2020, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated December 9, 2020. Our report includes a reference to other auditors who audited the financial statements of the UNC Investment Fund, LLC, UNC Intermediate Pool, LLC, UNC Management Company, Inc., The University of North Carolina at Chapel Hill Foundation, Inc., The Kenan-Flagler Business School Foundation, and the University's discretely presented component units, as described in our report on the University's financial statements. The financial statements of the University's blended and discretely presented component units were not audited in accordance with *Government Auditing Standards*, and accordingly, this report does not include reporting on internal control over financial reporting or compliance and other matters associated with those entities.

Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinions on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

A *deficiency in internal control* exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to

prevent, or detect and correct, misstatements on a timely basis. A *material weakness* is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the University's financial statements will not be prevented, or detected and corrected on a timely basis. A *significant deficiency* is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. However, material weaknesses may exist that have not been identified.

Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

Purpose of this Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.



Beth A. Wood, CPA
State Auditor

Raleigh, North Carolina

December 9, 2020

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This audit required 1,674 hours at an approximate cost of \$174,096.

Knowledge Base / Institutional Integrity and Risk Management / Conflict of Interest / Policy on Institutional Conflict of Interest

Policy on Institutional Conflict of Interest

University-Policy » Conflict-of-Interest » Retaliation

Title

University of North Carolina Chapel Hill Policy on Institutional Conflict of Interest

I. Introduction

The University of North Carolina at Chapel Hill has an obligation to the people of the State of North Carolina and to the public at large to conduct its activities properly. Accordingly, the University must provide clear standards aimed at preventing financial conflicts of interest from compromising its objectivity in the performance of its responsibilities. This policy on Institutional Conflict of Interest (the "Policy") concerns conflicts that arise from the University's financial relationships with external entities. It is intended to provide guidance to the Board of Trustees, administrators, faculty and staff to enable them to recognize and deal with institutional conflicts of interest, both real and perceived, that may arise in the course of relationships between the University as an institution and private entities outside of the University.

Consistent with its obligation to uphold the public trust, the University is committed to extending the reach of its research and learning activities beyond the campus community and to enriching the education of its students and the professional lives of its faculty and staff through public engagement. The University's mission of research, teaching and service is well served through the creation of collaborations with people and entities outside the University that better enable all concerned to meet the challenges of an increasingly complex world. Collaboration, particularly where external financial sponsorship is involved, may result in the creation of inherent tensions between the University's role as an independent creator and evaluator of knowledge, and the interest of the parties to the collaboration in achieving a positive outcome. Where such tensions have or appear to have the potential to interfere with independent decision-making on the part of University personnel, or to compromise the objectivity of research, the University must examine whether a conflict of interest exists.

Such conflicts of interest may be individual conflicts of interest involving the personal financial relationships of University trustees, administrators, faculty, staff or students with entities that conduct business with the University. Individual financial conflicts of interest are regulated by the University Policy on Conflicts of Interest and Commitment and generally are outside the scope of this Policy except in cases where individual employees with wide administrative authority possess personal financial interests that intersect with their University duties, as explained below. In addition, this Policy does not address nor attempt to regulate ideological differences that may arise in, and that may in fact be necessary to the growth of, a healthy academic environment. Further guidance on this matter may be found in the "Report of the Task Force on Donations that Affect the Curriculum" dated January 12, 2008.

This Policy defines institutional conflicts of interest, provides examples and sets out rules for the guidance of University trustees, administrators, faculty and staff. It is hoped that by increasing awareness of the potential for such conflicts and providing a process to address them, this Policy will both protect the integrity of the University and will encourage University personnel to enter into and conduct University activities involving engagement with outside entities with transparency, confidence and integrity.

II. Definitions

A. Institutional Conflict of Interest

An institutional conflict of interest exists where a financial relationship between the University and an external entity compromises the integrity of institutional decision-making. Such conflicts may arise in situations where 1) the University enters into a financial or business relationship at the institutional level with an external entity that may bring financial gain to the institution or any of its units; or 2) a University trustee, administrator, faculty or staff member holds administrative or decision-making authority of such a scope that the University cannot engage in a questioned activity or relationship independent of his or her involvement, and at the same time that person has personal financial interests that relate to the proposed activity or relationship.¹ For purposes of application of this Policy, such personal financial interests are deemed to be University financial interests.

Institutional conflicts of interest may involve any University activity carried out in the pursuit of the University's mission. Of particular concern are conflicts that arise in the conduct of research involving human subjects, but any activity in which the judgment of those involved becomes affected by University financial relationships may lead to a violation of this Policy. (Examples of institutional conflicts of interest are included in Appendix A, attached.)

B. Covered Individuals

This Policy covers all University personnel including trustees, administrators, faculty and staff who are in a position to make decisions for the University that affect the following:

- the conduct of research, especially research involving human subjects,
- the use of University resources, including decisions involving expenditures, purchasing, investments, equity and technology transfer,
- the execution of contracts and grants, or
- the licensing of University intellectual property to external parties.

Personnel who hold positions with a Tier I or Tier II classification should be especially vigilant.²

III. Policy

It is the Policy of this University that in pursuing its mission the University must conduct its business free of improper influence resulting from external institutional financial relationships.

Given the breadth of University activities, the variety of its relationships, and the need for the University to act as a wise steward of all its funds, the creation of University relationships that could be potential institutional conflicts of interest is unavoidable. This Policy does not require that the University refrain from conducting University business with entities that have a financial relationship with the University. However, in such instances, potential institutional conflicts of interest must be identified promptly and resolved appropriately. In particular, the University must strive to isolate decisions involving University operations and research from decisions regarding the management of financial investments made by or on behalf of the University, including investments made by or through The UNC Management Company or affiliated entities.

In determining whether a potential institutional conflict of interest in fact constitutes an impermissible institutional conflict of interest, the University will employ the following test: a financial relationship with an external entity will give rise to an impermissible institutional conflict of interest when the objectivity of the decision-making process or the allocation of resources is influenced in ways that (1) compromise the integrity of the University in fulfilling its mission, and (2) would not occur but for the expectation of financial gain to the University or one of its internal units from a current or anticipated external financial relationship.

As stated above, collaborations with external entities and public engagement in general are strategic objectives of the University. This Policy regulates those collaborations that are determined to be actual institutional conflicts of interest. A relationship that may initially appear to result in an institutional conflict of interest may not in fact do so. Determining whether such a conflict exists requires careful consideration of all available relevant information.

Details

Article ID: 131874

Created
Thu 4/8/21 9:18 PM

Modified
Mon 8/28/21 11:09 AM

Effective Date
03/04/2009 11:00 PM

Issuing Officer
Joy Bryde

Issuing Officer Title
Conflict of Interest Officer and Director, Conflict of Interest Program

Last Review
03/04/2009 11:00 PM

Last Revised
03/04/2009 11:00 PM

Origination
03/04/2009 11:00 PM

Responsible Unit
Conflict of Interest Office

Attachments (0)

No attachments found.

IV. Policy Implementation

A. Strategies for Resolution of Potential Institutional Conflicts

Potential institutional conflicts of interest may be resolved in a variety of ways, including but not limited to the following mechanisms:

1. Where the University proposes to conduct University business with an entity with which it has a financial relationship, the entire transaction between the parties must be included in a written contract. Inclusion of all points of agreement between the University and such entities is critical to avoiding the appearance, whether or not warranted, that the University may have conferred improper benefits on an entity with which it has a financial relationship.
2. Where a contract is appropriate to the relationship, such contracts should be awarded through use of transparent procedures for solicitation and award of contracts, such as those used by the University Purchasing Office. However, this approach is generally not feasible with certain University contracts, such as contracts for licensing University inventions or funding University research. Special care must be taken to separate decisions regarding such contracts from the impact of institutional financial interests.
3. All covered individuals must report any potential institutional conflict of interest arising from their personal financial interests to their immediate supervisors at the earliest opportunity. Where such a potential institutional conflict meets the test set forth in Section III above, such employees should, where feasible, recuse themselves from involvement in University business involving entities with whom those officers have financial relationships. An employee's supervisor must concur in the employee's decision to recuse himself or herself. In some cases, it will be impossible for such officers to recuse themselves and conduct their University duties effectively, and in such instances they must divest themselves of the personal financial interest creating the institutional conflict. Both the disclosure to the employee's supervisor and the decision to recuse or divest should be documented in the employee's personnel file.
4. In all instances, the University must segregate decisions involving the management of its investments and the solicitation of contributions from decisions regarding University operations or research that are or may be affected by those investments or contributions. For example, University employees directly or indirectly responsible for creation and management of research contracts should not be involved in oversight of the management of University investments. In addition, University employees involved in the solicitation of contributions or in the management of investments must not seek to influence the terms of research grants or contracts or the conduct of research.
5. Direct investments by the University or its management company in University-related start-up companies warrant particular sensitivity to ensure that no violations of this Policy occur as a result of such investments.
6. Because research involving human subjects warrants the highest level of protection, a special set of procedures that govern such research is attached in Appendix B.

B. Procedures for Reporting Concerns of Potential Institutional Conflicts and Mechanisms for Review

Any University official or employee who has concerns about the permissibility of any relationship or activity on the part of the University or its personnel involving an external relationship should consult the Institutional Conflict of Interest Officer. If, after examination of the situation, the Conflict of Interest Officer determines that a potential institutional conflict of interest may exist or that a situation poses significant potential for public perception of an institutional conflict of interest, the Conflict of Interest Officer shall refer the matter to the Institutional Conflict of Interest Review Committee.

The committee shall be composed of six members who will each serve for a three-year term; in the Chancellor's discretion, three of the initial members of the committee may be appointed to four-year terms in order to assure continuity of membership. The Chancellor shall appoint four members from within the University, and in order to bring a non-University perspective, shall appoint two members from the community to serve on the committee. Community committee members shall be required to execute appropriate confidentiality statements in order to safeguard information that is confidential under governing law. The committee shall evaluate potential conflicts of interest that are referred by the Conflict of Interest Officer. The Conflict of Interest Officer also shall provide periodically to the committee a list of matters it considered, but that in his or her opinion did not rise to the level of a potential institutional conflict of interest, along with a description of the issues involved and the reasons for not referring them to the committee. The committee may consider any of the non-referred matters in its sole discretion.

Following evaluation, the committee shall make a recommendation to the Chancellor concerning the disposition of the potential institutional conflict of interest. If the committee deems it necessary, it may also forward the recommendation to the Board of Trustees.

In instances where matters that are or have the potential to be institutional conflicts of interest come before the Board of Trustees, the Board must request the advice and counsel of the committee concerning the disposition of such matters. If the Board chooses not to follow the committee's advice, the matters must be referred to the Board of Governors.

Any act of retaliation or reprisal against an individual for reporting in good faith a potential institutional conflict of interest or a violation of this Policy shall be a violation of this Policy. Any use of this Policy to report in bad faith an alleged potential institutional conflict of interest shall be a violation of this Policy. Such violations will be dealt with through regular administrative processes for violations of University policies.

Appendix A: Examples of Institutional Conflict of Interest

Financial relationships with external entities give rise to impermissible institutional conflicts of interest when, in the interests of financial gain to the University or its internal units, the objectivity of the decision-making process or the allocation of resources is influenced in ways that (1) compromise the integrity of the University in fulfilling its mission, and (2) would not occur but for the existence of the external financial relationship.

The following examples are not intended to be exhaustive.

Examples of Institutional Conflict of Interest:

1. Seeking to influence the award or terms of a University contract, including but not limited to research contracts, with an external entity because of a past, present or future gift from the external entity.
2. Seeking to influence a University research review committee (such as Institutional Animal Care and Use committee or Institutional Review Board ("IRB")) to grant concessions or exceptions in reviewing or monitoring a research project involving technology in which the University has an equity interest.
3. Seeking to influence a University research review committee (such as Institutional Animal Care and Use committee or IRB) to grant concessions or exceptions in reviewing or monitoring a research project sponsored by an external entity in which the University has a financial interest.
4. Where a University official has made a personal financial investment in a University faculty member's start-up company, involvement by that official in decisions affecting the terms and conditions of that faculty member's University employment.
5. Where a University official has made a personal financial investment in a University faculty member's start-up company, involvement by that official in decisions affecting the terms and conditions of University business relationships with that start-up company.
6. Where the University, or an entity affiliated with the University, invests University funds or funds held for the benefit of the University in an entity in which officials responsible for approving the investment hold a personal financial interest, or makes use of an investment mechanism (including an investment management fund or firm) in which officials responsible for approving the investment hold a personal financial interest.

Examples of Potential Institutional Conflict of Interest:

1. Where the University is entitled to receive royalties from the sale of a technology that is proposed to be the subject of a University research project.
2. Where the University, through technology licensing activities, holds an equity interest or an entitlement to equity of any value in a non-publicly traded sponsor of research at the University.
3. Where the University, through technology licensing activities or otherwise, holds a significant equity interest in a publicly traded sponsor of research at the University and University officials responsible for managing that equity interest are also involved in decisions concerning the conduct of University research sponsored by the entity.
4. Appointment of a University official with broad administrative authority to serve with or without compensation in either a personal or representative capacity as an officer, director, or scientific advisory board member of a sponsor of research conducted at or under the auspices of the University.
5. Allocation of laboratory or office space by a University academic department in a manner that unduly favors investigators whose research is sponsored by an entity that has provided the department with gifts.

Appendix B: Special Procedures for Human Subjects Research

The Office of Technology Development ("OTD") shall compile a list of all entities in which the University holds an equity interest as part of a licensing arrangement and shall provide this list to all IRBs at the University. OTD shall supplement the list as equity licenses are issued or as investments are sold.

In the event that the University or any University-related investment entity invests directly in an entity whose stock is not publicly traded, the Vice Chancellor for Administration and Finance will provide a list of such entities to all IRBs at the University. The Vice Chancellor shall supplement the list as additional investments are made or liquidated.

All human subjects research protocols submitted for regular or expedited review to any IRB must indicate 1) the nature and source of all drugs, devices or biologics to be used in the proposed research, 2) the source of all funding and 3) whether the proposed project involves the use of an invention or technology that is owned by the University or has been invented by a University employee or student.

An IRB shall refer a proposed research project to the Conflict of Interest Officer for further review under this Policy where:

1. The proposed research is funded by an entity on either the list compiled by the Office of Technology Development or by the Vice Chancellor for Administration and Finance; or
2. The proposed research studies otherwise involve an invention or technology owned by the University or invented by a University employee or student.

¹ For purposes of this Policy, such personal financial interests shall include anything of monetary value, including salary or other payments for services, equity interests, and intellectual property rights of the University employee or of his or her family members. Family members shall include dependent children or spouse. Spouse shall include a person with whom the employee lives together in the same residence and with whom the employee shares responsibility for each other's welfare and shares financial obligations.) Interests in mutual funds where the employee has no control over the selection of holdings shall not be considered a personal financial interest under this Policy.

² These personnel include all senior academic and administrative officers, such as the Chancellor, Vice Chancellors, the Provost, Associate Provosts, Deans, and University Librarians among others. Directors, including Center and Institute Directors and Department Chairs, are charged with the same level of care. *Any person to whom these individuals delegate any portion of their decision-making authority for any reason or for any amount of time is charged with the same high degree of vigilance in the application of this Policy.*

| | |
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Subrecipient Monitoring/Review Checklist

| |
|---|
| Name of Sub-Recipient: The University of North Carolina at Chapel Hill |
| Funding Source: NIH/NIAID |
| Award Number: 1U01AI151797-01 |
| Sub-Recipient Awarding Period: 17 June 2020 - 31 May 2021 |
| Monitoring Period: 17 June 2020 - 31 May 2021 |

For Low Risk Subrecipients

| | | YES | No | N/A |
|----|---|-----|----|-----|
| 1 | Invoices submitted in accordance with the Sub-Award terms and conditions | X | | |
| 2 | Invoice periods are clearly stated and within the period of performance | X | | |
| 3 | Invoices only contain expenses allowable under OMB Uniform Guidances/EHA guidelines/ Sub-Award terms | X | | |
| 4 | Invoice expenses are in agreement with the line item budget in executed agreement | X | | |
| 5 | Invoice numbers, periods and expenses have no duplicates or gaps | X | | |
| 6 | Subrecipient organization has provided their indirect cost policy/information on how they plan to charge overhead if subrecipient organization does not have an indirect cost | X | | |
| 7 | Required cost share reported invoices | | | X |
| 8 | EHA and the Sub-Recipient communication has been consistent and adequate | X | | |
| 9 | Conversion of Local currency to USD consistent across the billing cycles | X | | |
| 10 | Subrecipient has provided their most recent audit (If applicable) | X | | |
| 11 | Invoice signed by an Authorized Official from subrecipient organization | X | | |

For Medium Risk Subrecipients: Additional requirements

| | | | | |
|----|---|--|--|--|
| 12 | Expenses reconciled with the submitted supporting documentation | | | |
| 13 | Required cost share reported on the invoice and proper documentation attached | | | |

For High Risk Subrecipients, Additional requirements

| | | | | |
|----|--|--|--|--|
| 14 | Bank Statements and Reconciliations | | | |
| 15 | General ledgers reconciled with supporting documentations, balance sheets and income statements, other corporate documents as requested | | | |
| 16 | Field monitoring visits and accompanying field visit report indicate that subrecipient is making progress in moving from "high" to "medium" risk | | | |
| 17 | Financial information is consistent with programmatic reports | | | |

Reviewed and Approved by

_____ (b) (6) _____ 12-Jun-21
Finance Representative **Date**

Name: Armine Arustamyan
Title: Chief Financial Officer

_____ (b) (6) _____ 11-Jun-21
Program Representative **Date**

Name: Aleksei Chmura
Title: Chief of Staff