Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

April 5th, 2016 (3:00pm-3:30pm)

ReadyTalk Teleconference: 866-740-1260

Access Code:

NOTE: Next IBC meeting: 04/25/2016

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and Safety Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services Voting Member, Interim Vice-Chair, Campus Veterinary Services

Victor Lukas Voting Ex-Officio Member, Attending Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

Adrienne Zweifel Associate Biosafety Officer, Environmental Health and Safety

Excused:

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services

Bruce Draper Voting Member, Molecular & Cellular Biology

Thomas Ferguson Non-Voting *Ex-Officio* Member, Medical Director, SHCS

Angela Gelli Voting Member, Chair, Pharmacology

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Fred Jacobsen Voting Member, Public Member

Fred Jacobsen Voting Member, Public Member, Retired UCD Voting Member, (Alternate), Plant Pathology Voting Member, (Alternate) Campus Veterinarian

Elizabeth Maga Voting Member, Animal Science

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Jill Blackwelder-Parker Non-Voting Ex-Officio Member, Associate Vice Chancellor,

Safety Services

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Call to Order: A quorum was established with 7 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:01 pm by Renee Tsolis, Interim IBC Chair.

I. Review of past IBC meeting minutes: N/A

April 5, 2016 FINAL Page 1 of 2

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review: None

B. Amendments:

BIO amendment: None Paper amendment:

BSL₂

0785-06 Reviewer: az

Host-microbe cross-talk and pregnancy outcomes

NIH Guidelines: none

Add: Uropathogenic E. coli to pregnant NHPs

Approved (7-0-0)

 A member asked (1) how pathogenic the bacteria was; and (2) how likely an exposure would lead to a bladder or urinary tract infection. These topics were sufficiently addressed.

C. Storage only: None

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO: None

E. Terminated BUAs: None

V. Discussion Items: None

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 3:07 pm.

April 5, 2016 FINAL Page 2 of 2

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes March 28, 2016 (3:00 PM – 4:41 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and Safety Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary Services

Bruce Draper Voting Member, Molecular & Cellular Biology

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Fred Jacobsen Voting Member, Public Member

Victor Lukas Voting Ex-Officio Member, Attending Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, Environmental Health and Safety

Chelsea Schiano High Containment Facility Officer

Adrienne Zweifel Associate Biosafety Officer, Environmental Health and Safety

Excused:

Angela Gelli Voting Member, Chair Pharmacology

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services Thomas Ferguson Non-Voting *Ex-Officio* Member, Medical Director, SHCS

Johan Leveau Voting Member, (Alternate) Plant Pathology
Betty Ma Voting Member, (Alternate) Campus Veterinarian

Jill Blackwelder-Parker Non-Voting *Ex-Officio* Member, Associate Vice Chancellor,

Safety Services

Curtis Plotkin Non-Voting Ex-Officio Member, Director, Environmental Health &

Safety

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Guests:

Felecia Wilson Safety Services

March 28, 2016 Page 1 of 7

Call to Order: A quorum was established with 11 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Renee Tsolis, Interim IBC Chair.

I. Review of past IBC meeting minutes:

February 22, 2016

Approved (11-0-1; Draper abstained)

Lukas joined meeting

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

HGT & BSL2

N C2143 Laird, John Reviewer: pb

Treatment for Patients with Peripheral Artery Disease -

NIH Guidelines: IIIC1

Approved (11-0-1; Barruel abstained)

BSL₂

N **R2197** Pan, Zhongli Reviewer: az

Effective disinfection of black peppercorn using pulsed light irradiation

NIH Guidelines: N/A Approved (12-0-0)

- o BSO recommends following the Cal/OSHA definition of what is an ATD.
- ATD training is not necessary because there is no high volume or high splash potential
- R **R2223** (Replacing 0804)

Therapeutic and prophylactic interventions against HIV/AIDS

NIH Guidelines: IIID1a, IIID4a, IIID4b

Approved (12-0-0)

- o In the case of exposure, pre-arrangements have been made with Occupational Health Physician.
- o SIV prophylaxis differs from that for Herpes B.

R **R2224** (Replacing 0903)

Reviewer: jb

Reviewer: vx

Production of induced pluripotent stem cells

NIH Guidelines: IIID. IIID1b

Conditionally Approved (11-0-1; Maga abstained)

March 28, 2016 Page **2** of **7**

- The initial summary doesn't match with what is described; no discussion of IPSC. IPSC is for cow, sheep and pig cells. What are they doing with human cells? ABSO will request clarification, to include human and other information.
- o Indicate where cells are coming from: pig, slaughterhouse; sheep barn?
- Explain non-human primate (B virus) risks.
- o Embryos need to be added to Biological Materials section.
- Lentivirus marked as BSL1 but should be BSL2, also clarify the generation of this viral vector.
- R R2225 (Replacing 0906)

 The role of the radiation generated cell adaptive response and tumorigenesis
 NIH Guidelines: IIID1b

 Approved (12-0-0)
 - o Indicate how BBP exposure will be minimized.
 - Clarify whether IRB approval is needed for tissue samples.
 - Clarify mouse work and sharp risk for animal procedures.
 - o Delete HER2 from non-hazardous gene list and transfer to oncogene list.
 - Add training information.

BBP only

N R1797 Morrissey, Brian Reviewer: az Interstitial lung disease (ILD) clinical registry and biorepository NIH Guidelines: N/A

Approved (12-0-0)

- Update BBP training.
- o Provide IRB number.
- R R2221 (Replacing 0880-02B) Yellowley-Genetos, Clare Reviewer: jb Migration and differentiation of human mesenchymal stem cells NIH Guidelines: N/A Approved (12-0-0)
 - o Cell source information is needed; ABSO will follow-up.
- R **R2230** (Replacing 1041) Rutledge, John Reviewer: az Interaction of lipoprotein with the vascular wall NIH Guidelines: N/A

Conditionally Approved (12-0-0)

- Substitute non-glass pipets for glass ones, if possible.
- R R2255 (Replacing 0916B) DeGregorio, Michael Reviewer: vx
 Antiestrogen Research
 NIH Guidelines: N/A
 Conditionally Approved (12-0-0)

Mouse cell lines marked as BSL2 should be changed to BSL1.

March 28, 2016 Page **3** of **7**

- Eye protection should be used when splash potential exists.
- Liquid waste disposal reword the text to indicate bleach solution will be used at 10% final concentration.
- o Uncheck N95 respirator use in the BBPECP for BBP work.

BSL1:

R **R2220** (Replacing 1039)

Reviewer: jb

Experimental infection of boa constrictors with snake arenavirus

NIH Guidelines: N/A

Conditionally Approved (12-0-0)

- o What are the precautions; virus may be spread by mites?
- o It is not clear what mammals have been tested.
- State PPE used in animal housing facility.

N R2229 Vazquez, Mariel Reviewer: az

Understanding DNA packaging in bacteriophage satellite P4

NIH Guidelines: IIIE1
Approved (12-0-0)

- Clarify to what drugs are E. coli made resistant.
- o Change "should" to "will" be contacting the Biosafety Office.

B. Amendments:

BIO amendment:

BSL₂

R1509 Baumler, Andreas Reviewer: az

Molecular mechanisms of Salmonella pathogenesis

NIH Guidelines: IIID1

Add: Shigella flexneri to be genetically modified, and Carbapenem-resistant

Enterobacteriaceae

Approved (11-0-1; Tsolis abstained)

- Use surgical masks to cover mouth and nose when working with Shigella.
- o Inform research staff of risk to immunocompromised personnel.
- Is it possible to characterize the CRE antibiotic susceptibility for possible treatment in case of lab-acquired infection?
- What rDNA work will be done to CREs? None is being done.

R1570 Marcu, Laura Reviewer: az

Biophotonics imaging and therapy studies

NIH Guidelines: N/A

Add: human arteries and other tissues

Approved (12-0-0)

Red medical waste bags are not being used.

March 28, 2016 Page **4** of **7**

Clarify who fixes the Surgical Tissue Characterization, hospital staff or Marculab.

R1840 Reviewer: jb

Oxytocin receptor distribution in the human brain

NIH Guidelines: N/A

Add: NHP tissue cryosection and storage of NHP tissue/serum/urine

Conditionally Approved (12-0-0)

- o Indicate biosafety level for NHP blood and tissue (should be BSL2).
- o Describe centrifugation safety measures.
- o Biohazard materials disposal is unclear.
- Attach BBP Exposure Control Plan and Medical Waste Management Plan to the BUA.

R1942 Reviewer: jb

The modulation of host cells by apicomplexan parasites

NIH Guidelines: N/A

Add: hybridoma established cell line expressing Toxo proteins, clarify risk of Toxo oocyte cat infection

Approved (12-0-0)

- Add discussion of hybridoma cell lines.
- The location of work needs to be clarified.

R2012 Zhao, Min Reviewer: vx

Electric fields directed cell migration and wound healing and regeneration

NIH Guidelines: N/A Add: *Trichosporon asahii*

Approved (12-0-0)

R2155 Reviewer: jb

Immune responses to mucosal pathogens

NIH Guidelines: N/A Add: NHP serum Approved (12-0-0)

- o Provide B virus training for lab staff.
- o rDNA and ATP training are needed.
- C. Storage only: None
- D. Conditional BUAs reviewed by ABSO, Final Approval by BSO: None

E. Terminated BUAs:

0815-02B Knowlton, Anne Reviewer: pb

HSP60, exosomes, and cardiomyopathy.

Exp date: 05/20/2016

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de Lartigue, GFH Reviewer: nld Determining the role of MCH in the development of hyperphagia and obesity Exp date: 02/25/2016

1042 Reviewer: pb

Regulation of BDNF gene expression in zebrafish

Exp date: 03/85/2016

V. Discussion Items:

1. Vote on IBC Interim Chair, Dr. Renee Tsolis – Barruel

 The committee voted for Dr. Tsolis to be interim chair until Dr. Gelli returns in July, and for Dr. Tsolis to be the vice chair after July.

Approved (11-0-1; Tsolis abstained)

- 2. Reminder for Institutional Review Entity members for DURC Barruel
 - BSO requested confirmation from members on their participation on the IRE.
 Those invited to be on the IRE and were present at the IBC meeting accept the invitation.
- 3. IBC sub-committee for evaluating the biosafety inspection checklist Barruel
 - BSO asked for volunteers to evaluate the biosafety checklist.
 - Hoffmann, Stergiopoulos, Draper and Tsolis volunteered.
- 4. IBC review and comments on the Vivarium Hazard Safety Sheet (VHSS) for use of specific microorganisms in animals Corley
 - Indicated pathogens need to be added to all Primate Center sheets.

Approved (12-0-0)

VI. Information Items:

- 1. The IBC was informed of a splash to the eye of a researcher. It was with a non-pathogen and an NIH Guidelines exempt organism (*E. coli* K-12 strain). Jim Baugh followed-up with the lab. Re-training is being done and the lab PPE use is being re-evaluated.
- 2. CDPH has sent the Medical Waste Inspection Report for the January 28, 2016 inspection. Most of the findings were already fixed and a response will be sent to the CDPH.

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

 The VM3B BSL3 facility is now being used by researchers normally at J1 (until J1 restoration is complete).

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2. The GBSF BSL3 annual verification was performed and there was no sustained airflow reversal. Leaks found with a smoke test are getting fixed. The IBC approved continued use of these facilities for another year (Approved (11-0-1; Tsolis abstained)).

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 4:41 pm

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Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

January 25, 2016 (3:05 PM - 5:15 PM)

Hoagland Hall, Rm 130

In attendance:

Gerhard Bauer

Voting Member, Interim Chair, IM Div. of Hematology/Oncology

Philip Barruel

Voting Member, Biosafety Officer, Environmental Health and Safety

Voting Ex-Officio Member, Director, Occupational Health Services

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

William Buhles Voting Member, Public Member

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary Services

Bruce Draper Voting Member, Molecular & Cellular Biology

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Fred Jacobsen Voting Member, Public Member

Victor Lukas Voting Ex-Officio Member, Attending Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

James Baugh
Chelsea Schiano
Vivian Xian
Associate Biosafety Officer, Environmental Health and Safety

Excused:

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services

Angela Gelli Voting Member, Chair, Pharmacology

Thomas Ferguson Non-Voting *Ex-Officio* Member, Medical Director, SHCS

Fred Jacobsen Voting Member, Public Member, Retired UCD Johan Leveau Voting Member, (Alternate), Plant Pathology Voting Member, (Alternate) Campus Veterinarian

Elizabeth Maga Voting Member, Animal Science

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Jill Blackwelder-Parker Non-Voting *Ex-Officio* Member, Associate Vice Chancellor,

Safety Services

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Renee Tsolis Voting Member, Medical Microbiology & Immunology

Guests:

Bryce Falk Plant Pathology Shahideh Nouri Plant Pathology

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Call to Order: A quorum was established with 13 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:05 pm by Gerhard Bauer, Interim IBC Chair.

I. Review of past IBC meeting minutes:

December 18, 2015

APPROVED (8-0-4)

Abstained: Stergiopoulos, Jacobsen, Hoffman, and Najita

II. Announcements:

Bill Buhles is moving to Marin County and is resigning from the IBC. His last IBC meeting will be in February 2016.

III. Old Business:

BUAs tabled at the December 18, 2015 IBC meeting:

BSL₂

A **1065** (Amendment on old form): Pandey, Pramod Reviewer: jb Pathogen Inactivation in Food Waste, Green Waste, and Dead Poultry NIH Guidelines: N/A

DENY (13-0-0)

Add: new location for large scale experiments

Tsolis arrived

IV. New Business:

A. New and renewal BUAs for review:

HGT & BSL2

N **C2128**Abedi, Mehrdad Reviewer: jk

KTE-C19-103: A Phase 1/2 Multi-Center Study Evaluating the Safety and Efficacy of

KTE-C19 in Adult Subjects with Relapsed/Refractory B-precursor Acute Lymphoblastic

Leukemia (r/r ALL)

NIH Guidelines: IIICa

Approved (13-0-0)

- Consultant called in via phone
- Please add "genetically modified t-cells" to BUA document

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BSL3P

R R2157 (Replacing 0235-01) Falk, Bryce Reviewer: cs

Biology, molecular biology and control of phloem-limited plant viruses

NIH Guidelines: IIID5a IIID5b

Approved (13-0-0)

This PI was a guest at the IBC meeting

BSL2

R R1971 (Replacing 0811)

Selective Pressure of Antiandrogens on Castration-Resistant Prostate Cancer
NIH Guidelines: IIID4a, IIIF8, App C-II

Approved (13-0-0)

- Add "risks unknown" under Risk Assessment.
- Need a plan for what could happen if someone injects themselves.
- Indicate how liquid waste will be disposed of.
- Indicate that Hepatitis B vaccine will be offered to lab personnel.
- N **R2022** Olson, David Reviewer: az <u>Development of an In Vitro Assay for Determining the Hallucinogenic Potential of <u>Small Molecules</u></u>

NIH Guidelines: IIIE1

Approved (13-0-0)

•

R R2115 (Replacing 0854-05) Bauer, Gerhard Reviewer: jb
Transduction of skin tissue with adenoviral vector to create EPO secreting
"EPODURE Biopumps"
NIH Guidelines: IIID3a

Approved (13-0-0)

R **R2146** (Replacing 1036B) Athanasiou, Kyriacos Reviewer: az Engineering articular cartilage using human dermis-derived stem cells and chondrocytes

NIH Guidelines: IIID1

Approved (13-0-0)

Adrienne verified that RDNA training has been completed by those who need it.

January 25, 2016 Page **3** of **7**

R R2155 (Replacing 0655-01) Baumgarth, Nicole Reviewer: jb

Immune responses to mucosal pathogens

NIH Guidelines: N/A

Approved (13-0-0)

- Concern about how mice are inoculated within biosafety cabinet
- Add recommendation to get Flu vaccination
- · Ask them to add surgical mask as part of PPE

N R2196 Reviewer: jb

Studying NRAS-Induced Cellular Senescence

NIH Guidelines: IIID4a, IIID4b

Conditionally Approved (13-0-0)

- needs to complete rDNA training
- Why can't they use a biosafety cabinet to do injections?
- IBC disagrees with not autoclaving bedding before disposal
- Recommend that if someone is exposed they go to Occupational Health
- Need to provide more information on procedures in an event of exposure

BBP only:

ALL ALREADY APPROVED BY BSO

R **R2163** (Replacing 1032B) Green, Ralph Reviewer: vx

Vitamin B 12 and folate blood levels in Alzheimer's patients

NIH Guidelines: N/A

N **R2189** Stewart, Christine Reviewer: vx

Micronutrient status and inflammation in populations at risk of nutritional

deficiencies

NIH Guidelines: N/A

BSL₁

R **R2119** (Replacing 0023-01) Sinha, Neelima Reviewer: jb

The regulation of gene expression in plants

NIH Guidelines: IIIE2a, IIIE2b, IIIE

Approved (13-0-0)

- Clarify if shipping is off campus in BUA
- Need to list specific plant viruses & what they are doing with them

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Need to add details of how they are working with plants

R **R2142** (Replacing 0748-02)

Reviewer: jb

The study of demyelinating diseases and disease treatment

NIH Guidelines: IIID4b

Conditionally Approved (13-0-0)

- Need to add info on transgenic mice
- How are they going to inject the animals?
- Add eye protection as part of PPE

R **R2151** (Replacing 0058)

Rose, Alan

Reviewer: az

The positive effect of introns on plant gene expression

NIH Guidelines: IIIE

Approved (13-0-0)

R **R2167** (Replacing 0898)

Gomes, Aldrin

Reviewer: vx

The role of the proteasome in troponin related cardiomyopathies

NIH Guidelines: IIIE, IIIF8, App C-II

Approved (13-0-0)

- Risk Assessment delete text "siRNA poses no risk to animals."
- Delete brand name for bleach, and replace it with "household bleach."

N **R2187** Reviewer: az

Neural mechanisms underlying decision making behavior in rodents

NIH Guidelines: IIID4

Approved (13-0-0)

- Delete "androtropic"
- Add IACUC protocol number to BUA
- Add alternative housing in case new BSL2 space is not ready upon PI's arrival
- Delete "will not" and replace with "should not"

B. Amendments:

BIO amendment:

BSL2

January 25, 2016 Page **5** of **7**

R1563 Reviewer: az

Regulation of NMDA receptors

NIH Guidelines: IIID4

Add: lentiviral vector use in mice

Approved (13-0-0)

- Descriptive changes only:
 - o Add "packaging"
 - o Delete "replication of a section"
 - Change tranduce not transvected
- Clarify if face or surgical mask and add eye protection to PPE

Amendment on SmartSite (old form):

BSL₂

1050 Reviewer: jb

RhCMV/SIV vaccine response in CMV co-infected animals

NIH Guidelines: N/A

Add: S. pneumoniae (Serotype 19A-7)

Assign to designated member review: Corley, Tsolis, Najita

C. Storage only: None

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO: None

E. Terminated BUAs:

0869-02B Peter J Dickinson Reviewer: nld

Use of human cell lines for cancer research

Exp date: 11/18/2016

V. Discussion Items:

1. The Primate Center withdrew its BUA exemption request for CNPRC investigators who work with NHP source materials (including cells) – Barruel

BSO met with CNRPC Director, CNPRC Associate Director, CNPRC Safety Officer, UC Davis Counsel, Safety Services Associate Vice Chancellor, and EH&S Director. The exemption request was withdrawn.

- 2. BUA audits Hoffmann
 - One member's suggestion: Training should be re-instated yearly
 - Question to the ABSO, are the audits being followed up on?

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• Hoffman suggests that the ABSO's not necessarily document the audit findings, but use them as "teaching moments" to show the PI's.

IV. VI. Information Items:

1. 2016 CDPH medical waste inspection – Barruel

Inspection is Thursday, January 28, 2016 and there will be 5 inspectors on campus. The CDPH has requested to inspect all labs that generate medical waste including the procedures rooms in the animal facilities.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 5:15 pm.

January 25, 2016 Page **7** of **7**

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Special Session AGENDA April 28, 2016 (3-3:30pm) Conference Call

ReadyTalk Information:

Dial-in: 866-740-1260

Code:

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and Safety

Nicole Corley

Johan Leveau

Voting Member, Campus Veterinary Services

Voting Member, (Alternate), Plant Pathology

Victor Lukas

Voting Ex-Officio Member, Attending Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, Interim IBC Chair, Medical Microbiology &

Immunology

IBC support staff in attendance:

Chelsea Schiano High-Containment Facility Officer, Environmental Health and

Safety

Excused:

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services

Bruce Draper Voting Member, Molecular & Cellular Biology

Thomas Ferguson Non-Voting Ex-Officio Member, Medical Director, SHCS

Angela Gelli Voting Member, Chair, Pharmacology

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Fred Jacobsen Voting Member, Public Member

Fred Jacobsen Voting Member, Public Member, Retired UCD Betty Ma Voting Member, (Alternate) Campus Veterinarian

I. Review of past IBC meeting minutes: NA

II. Announcements: None

III. Old Business: None

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IV. New Business:

Extension of expiring BUA

BSL3P

0235-03 Falk, Bryce Reviewer: mmm

RNA-interference to control insect vectors of plant pathogens

NIH Guidelines: IIID5a, IIIE2a, IIIE2b

• Request to extend the expiration of this BUA to the end of May 2016.

Approved (7-0-0)

V. Discussion Items: None

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

April 28, 2016 FINAL Page 2 of 2

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

February 22, 2016 (3:00 PM - 5:28 PM)

Hoagland Hall, Rm 130

In attendance:

Angela Gelli Voting Member, Chair Pharmacology

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and Safety Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

William Buhles Voting Member, Public Member

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary Services

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Fred Jacobsen Voting Member, Public Member, Retired UCD Johan Leveau Voting Member, (Alternate) Plant Pathology Victor Lukas Voting Ex-Officio Member, Attending Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, Environmental Health and Safety Vivian Xian Associate Biosafety Officer, Environmental Health and Safety Adrienne Zweifel Associate Biosafety Officer, Environmental Health and Safety

Excused:

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services

Bruce Draper Voting Member,

Betty Ma Voting Member, (Alternate) Campus Veterinarian Voting Member (alternate), Plant Pathology

Jill Blackwelder-Parker Non-Voting Ex-Officio Member, Associate Vice Chancellor,

Safety Services

Thomas Ferguson Non-Voting Ex-Officio Member, Medical Director, SHCS

Neil Speth Non-Voting Ex-Officio Member, UCDMC Employee Health Services

Guests:

Curtis Plotkin Non-Voting Ex-Officio Member, Director, Environmental Health &

Safety

Vet Med: Pathology, Microbiology and Immunology

Wildlife, Fish and Conservation Biology California National Primate Research Center

David Katz Anthropology

California National Primate Research Center

Felecia Wilson Safety Services

February 22, 2016 Page 1 of 7

Call to Order: A *quorum* was established with 12 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Dr. Angela Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

January 25, 2016

Approved (9-0-3, Belcourt, Gelli and Leveau abstained)

Dr. Maga joined meeting

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL₂

N **R2098** Falk, Bryce Reviewer: cs <u>Evaluation of a bacteriophage complex for effects against *Xylella fastidiosa*, causal</u>

agent of Pierce's Disease of grapevines

NIH Guidelines: N/A Approved (13-0-0)

- o A pharmaceutical company is the source for bacteriophages that will be used against *Xylella fastidiosa*.
- R **R2161** (Replacing 0913B) Beal, Peter Reviewer: vx "Chemical modifications of siRNA to control off-target effect" and "The bioorganic chemistry of RNA editing ADARs"

NIH Guidelines: III-E, IIIF8, App C-II, App C-III

Approved (13-0-0)

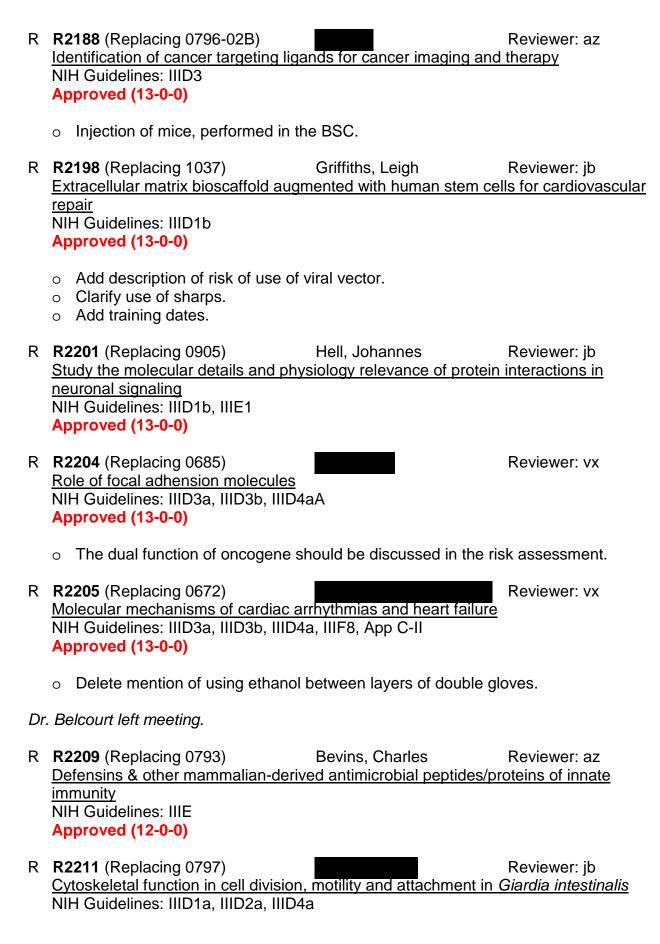
- A member asked for a description of how yeast (exempted material) will be used.
- R R2165 (Replacing 0796-03) Lam, Kit Reviewer: az Characterization of antimicrobial binding ligands for targeted drug delivery NIH Guidelines: N/A Approved (13-0-0)
 - There is a request to clarify how to prevent contamination.
- R R2168 (Replacing 0789)

 Role of Wnt signaling in neural development and neural stem cells

 NIH Guidelines: IIID

 Approved (13-0-0)

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Approved (12-0-0)

BBP only

ALL ALREADY APPROVED BY BSO

N **R2180** Reddi, A Hari Reviewer: az Biochemical Analysis and Tribological Testing of Platelet-Rich Plasma and Blood NIH Guidelines: N/A

N **R2217**Assays and procedures for measuring metabolic analyses in humans and non-human primates

Reviewer: vx

NIH Guidelines: N/A

NHP only

ALL ALREADY APPROVED BY BSO except for R2045

R **R2045**Morphological consequences of hybridization in primate and human evolution: a

macaque model NIH Guidelines: N/A

Conditional Approved (13-0-0, reviewed before Dr. Belcourt left the meeting)

Guest presentation

- Flensing must be performed at the CNPRC.
- o Documented B virus training must be performed.
- o If conditions cannot be met, the IBC must review deviations.
- R **R2207** (Replacing 1038B) Clifford, Saron Reviewer: jb Engineering articular cartilage using human dermis-derived stem cells and chondrocytes

NIH Guidelines: N/A

- BBP trainings are outdated.
- R R2219 Cruz-Orengo, Lilian Reviewer: vx

Immune responses to mucosal pathogens

NIH Guidelines: N/A

BSL1:

R R2162 (Replacing 0020) Reviewer: jb

Mechanisms of asymmetric cell division during female meiosis

NIH Guidelines: IIID4a, IIIE

Approved (12-0-0)

R **R2200** (Replacing 1033) Berman, Robert Reviewer: vx

February 22, 2016 Page **4** of **7**

Imaging neural activity with genetically encoded calcium indicators following mechanical strain injury
NIH Guidelines: IIID3e
Approved (12-0-0)

R R2203 (Replacing 1033) Maloof, Julin Reviewer: vx Evolution, variation, and mechanisms of plant shade avoidance responses
NIH Guidelines: IIIE2a, IIIF8, App C-II, C-III
Approved (12-0-0)

- A question was asked about how seeds are stored.
- R R2206 (Replacing 0045)

 Molecular genetic studies in chickens

 NIH Guidelines: IIIF8, C-II

 Approved (12-0-0)
 - Clarify neutralization of transgenic materials.

N R2231

Kinase pathways that regulate the cytoskeleton during neuronal development
NIH Guidelines: IIID4a, IIIE1

Approved (12-0-0)

B. Amendments:

BIO amendment:

BSL₂

R1758 Reviewer: jb

Macaques as a model for influenza, Measles and AIDS pathogenesis, transmission,

vaccine development and antiviral therapy

NIH Guidelines: IIIE1, IIID4a

Add: AAV viral vector, non-human primates

Approved (12-0-0)

R1810 Reviewer: az

<u>Understand the immune responses of influenza A infection in mice in association</u> with social stress, air pollutant and allergic inflammation

NIH Guidelines: N/A

Add: non-human primate tissues

Approved (12-0-0)

R1863 Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: N/A

Add: Zika Virus, mice, mosquitos and NHPs

Approved (13-0-0, reviewed before Dr. Belcourt left the meeting)

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Guest presentation of the project.

- Discuss the risks in the IACUC room/lab safety information sheet (e.g. symptoms of infection)
- N95 for researchers and husbandry staff, not just a surgical mask.
- Biosafety will need to audit the housing facility.

R2033 Reviewer: jb
A gene therapy strategy for the production of recombinant feline erythropoietin in cats

NIH Guidelines: IIID4a

Add: rats, E. coli, and a procedure to introduce viral vector into rats

Approved (12-0-0)

o rDNA training needs to be updated.

Amendment on SmartSite (old form):

BSL2

Development of vaccines for treatment of cancer and prevention of infectious diseases

NIH Guidelines: N/A

Add: canine parvovirus (CPV) vaccine strain, and storage of non-human primate

serum

Approved (12-0-0)

- C. Storage only: None
- D. Conditional BUAs reviewed by ABSO, Final Approval by BSO: None
- E. Terminated BUAs: None

V. Discussion Items:

- 1. UC Davis Principles of Community Barruel
 - o Reminder: discuss topics in a respectful manner.
- 2. IBC standard: regulations, University policies, and BMBL Barruel
 - Provide top 5 BUA audit findings at a future IBC meeting.
- 3. IBC Interim Chair Barruel
 - We will plan to vote on an interim IBC Chair at the next meeting.

VI. Information Items:

- 1. Q fever reports to CDC Barruel
 - UC Davis filed reports with the CDC for potential exposure to Coxiella burnetii (the causative agent for Q fever). Potential exposures are not research-related but are

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in the context of the Veterinary hospital. No personnel have exhibited symptoms of Q fever.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 5:28 pm

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Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

April 25, 2016 (3:01 PM - 4:52 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and Safety Voting Ex-Officio Member, Director, Occupational Health Services Voting Member, Interim Vice-Chair, Campus Veterinary Services

Bruce Draper Voting Member, Molecular & Cellular Biology
Fred Jacobsen Voting Member, Public Member, Retired UCD
Johan Leveau Voting Member, (Alternate) Plant Pathology
Victor Lukas Voting Ex-Officio Member, Attending Veterinarian

Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, Environmental Health and Safety

Chelsea Schiano High Containment Facility Officer

Vivian Xian Associate Biosafety Officer, Environmental Health and Safety Adrienne Zweifel Associate Biosafety Officer, Environmental Health and Safety

Excused:

Angela Gelli Voting Member, Chair Pharmacology

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Diane Hoffman

Laurie Brignolo

Thomas Ferguson

Voting Member, School of Medicine Sponsored Programs
Voting Member (Alternate), Campus Veterinary Services
Non-Voting Ex-Officio Member, Medical Director, SHCS

Betty Ma Voting Member, (Alternate) Campus Veterinarian

Elizabeth Maga Voting Member, Animal Science

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Jill Blackwelder-Parker Non-Voting *Ex-Officio* Member, Associate Vice Chancellor,

Safety Services

Curtis Plotkin Non-Voting *Ex-Officio* Member, Director, Environmental Health & Safety Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Guests:

Felecia Wilson Safety Services

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Call to Order: A quorum was established with 9 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:01 pm by Renee Tsolis, Interim IBC Chair. Jim Klenner, an external pre-reviewer joined the meeting by phone.

I. Review of past IBC meeting minutes:

March 28, 2016

Approved (8-0-1, Leveau abstained)

Special session on April 5, 2016

Approved (6-0-3, Jacobsen, Draper, Leveau abstained)

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

HGT & BSL2

N C2267 Kelly, Karen Reviewer: pb
Phase II Trial of in Patients with Metastatic Non-Small Cell
Lung Cancer (NSCLC) who have Progressed after One Line of Systemic Therapy
NIH Guidelines: IIIC1
Approved (8-0-1, Barruel abstained)

BSL3P

R R2245 (Replacing 0235-03) Falk, Bryce Reviewer: cs RNA-interference to control insect vectors of plant pathogens NIH Guidelines: IIID5a, IIIE2a, IIIE2b Tabled (9-0-0)

- o PTX & TMV; 1 cfu/ml, also it seems that the units should be in "PFU"
- o What strain of Agrobacterium?
- o Remove location information from the risk assessment section
- Not clear what is being done which insect/plant/RNA, cannot make risk assessment
- R R2246 (Replacing 0812) Coaker, Gita Reviewer: jb Biochemistry, molecular biology and control of bacterial plant pathogens
 NIH Guidelines: IIIE
 Approved (9-0-0)
 - A recommendation was made to remove the 1st sentence of project summary, as it was not necessary
 - o P. syringae bacterium entry; indicate as BSL 1P

April 25, 2016 FINAL Page 2 of 8

- o Candidatus Liberibacter asiaticus (CLa) bacterium; clarify why the max volume per container is zero (discussion during the meeting: CLa can't be cultured in media)
- o Remove lab location from risk assessment section
- NIH Guidelines: should III-D-5 (a and b) be added? III-F-8 Appendix CII should be added.

BSL₂

N R1746 Jay-Russell, Michele Reviewer: jk

Western Center for Food Safety

NIH Guidelines: N/A Approved (9-0-0)

- Extensive project; indicates several locations; i.e. Tupper Hall. Review R1968 for additional information
- Risk Assessment is OK, but exposure information should be added (add Occupational Health Services)
- o For Project 4, clarify what is the indicator strain

N R2216
Inflammatory cytokines and chemokines in skin inflammation and neoplasia
NIH Guidelines: IIID4a, IIIE1, IIIF8, App C-II
Approved (9-0-0)

- Add housing location for mice
- R **R2242** (Replacing 1045)

 <u>Biological examination and potential therapeutic applications of discarded human surgical waste; biological examination of animal model tissue

 NIH Guidelines: IIID3b, IIID4a</u>

Conditional Approval (9-0-0)

- o What is the viral vector generation?
- What is the source of the sheep stem cells (generated from the work approved by IACUC)? If ves, then:
 - Mention awareness of Q fever; and
 - How are cells being generated from tissues?
- Where will the homogenization of sheep tissues be done? Provide a risk assessment and controls to be used for containing aerosols.
- Uncheck "Yes" but check "No" for generating new transgenic animals since it only involves breeding transgenic lines.
- R **R2247** (Replacing 0807-01)

 Studies of urological cancers, such as prostate and kidney cancers using perspective human cancer cell lines

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NIH Guidelines: IIID3b, IIID4a, IIIF, App C Approved (9-0-0)

- The IRB number is not needed in the Project Summary
- o E. coli K12 should not be marked as needing BSL2 containment
- o In prostate tissue, unit of measure is "dose," but should be "cells"
- Human cells in animals needs ABSL2 containment (it was indicated as ABSL1)
- R **R2250** (Replacing 1049B)

Reviewer: jb

Growth and differentiation of human mesenchymal stem cells, prostate cancer, and breast cancer cells

NIH Guidelines: IIIF8-C1

Approved (9-0-0)

- Mice are not transgenic
- o Typo, rDNA, plasmids carry "wither"...change to "either"
- o *E. coli*; check the genetically modified box
- o Experimental procedures; clarify that cultured cells are "mouse" cells
- R **R2252** (Replacing 0609)

Reviewer: jb

Evaluation of protective CMV vaccines in Rhesus macaques

NIH Guidelines: IIID2a, IIID3a

Approved (9-0-0)

- o rDNA training is needed for some personnel on the roster
- Clarify from where the gorilla cells were obtained
 - If they are cell lines should be moved to "established cells"
- R **R2253** (Replacing 0295-01)

Reviewer: jk

Growth and differentiation of airway epithelial cells in response to cytokines and injury

NIH Guidelines: IIID3b, IIID4b Conditional Approval (9-0-0)

Conditional Approval (9-0-0)

- Include mention of how medical waste is disposed
- Add BBP training and offer of hepatitis B vaccination for staff
- o IACUC protocol is expired
- Remove text "PI needs to update this"
- o Indicate how cells are administered to mice (are mice anesthetized?)
- R **R2256** (Replacing 0801)

Reviewer: jk

Development of Olfactory Circuitry NIH Guidelines: IIID3b, IIID4a Conditional Approval (9-0-0)

o Since mice will be micro-injected, clarify how are pups stabilized

Clarify if sharps will be used

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R **R2259** (Replacing 1046) Izumiya, Yoshihiro Reviewer: vx

Viral replication and oncogenesis

NIH Guidelines: IIID3b, IIID3e, IIIE, IIIF8, App C-II

Approved (9-0-0)

Refresher training is required for one person on the list.

R R2263 (Replacing 0907-01) Lieu, Deborah Reviewer: az

Non-linear microscopy of pluripotent stem cells and their derivatives

NIH Guidelines: IIID1

Approved (8-0-1; Lukas abstained)

R R2276 (Replacing 1048B) Yarov-Yarovoy, Vladimir Reviewer: vx

Sodium channel structure-function

NIH Guidelines: IIIE Approved (9-0-0)

o Correct typo: "sells" to "cells"

BBP only

N **R2101** Hertz-Picciotto, Irva Reviewer: az

CHARGE - Childhood autism risks from genetics and the environment

NIH Guidelines: N/A

Approved by designated reviewers

R **R2248** (Replacing 0787) Mack, Philip Reviewer: vx <u>Pre-clinical and correlative studies in non-small cell lung cancer (NSCLC) and other cancers</u>

NIH Guidelines: N/A

Approved by designated reviewers

R **R2260** (Replacing 0907-02B) Chan, James Reviewer: az Analysis of single cells using Raman spectroscopy, fluorescence microscopy, and brightfield imaging

NIH Guidelines: N/A

Approved by designated reviewers

BBP training needs to be updated

N R2261 Schumann, Cynthia Reviewer: vx Cell Specific Molecular Mechanisms Underlying Brain Pathology in Autism Spectrum

Disorder

NIH Guidelines: N/A

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Approved by designated reviewers

NHP only

N **R2045** Reviewer: az

Morphological consequences of hybridization in primate and human evolution: a

macaque model NIH Guidelines: N/A Approved (9-0-0)

BSL1P

R **R2239** (Replacing 0800) Cook, Douglas Reviewer: jk Molecular and biochemical analysis of symbiotic plant receptor kinase complexes NIH Guidelines: IIIE2a, IIIE, IIIF

Approved (9-0-0)

- o Agrobacterium should be marked as a genetically modified organism in the "Biological Materials" section
- o Fusarium maximum volume for infection should be more than zero
- o Remove the "don't know" text from the chickpea entry
- o Correct typo in the risk assessment for "Agrobacterium"
- Add time and concentration for the bleach solution
- o rDNA training is needed for some personnel
- R **R2243** (Replacing 0912) Dinesh-Kumar, Savithramma Reviewer: jk

Molecular Basis of plant-pathogen Interactions

NIH Guidelines: IIIE2a, IIIE

Approved (9-0-0)

- o Combine entries for *P. syringe*.
- o "Yes" should be checked to the question of genetically modified organism for Agrobacterium in the Biological Materials section.
- o Add bleach concentration and autoclave conditions in the Risk Assessment section
- Some personnel are required to complete rDNA training.
- R **R2244** (Replacing 0689) Blumwald, Eduardo Reviewer: az

Salt and drought tolerance in plants

NIH Guidelines: IIIE2a

Approved (9-0-0)

- Include a description of work with rice in the Project Summary
- Clarify transportation of Arabidopsis
- R **R2254** (Replacing 0914) Rizzo, David Reviewer: vx

Diseases of forest trees in California

NIH Guidelines: N/A

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Approved (9-0-0)

o Enter the correct maximum use volume for *Phytophthora ramorum*.

B. Amendments:

BIO amendment:

BSL₂

R1574 Reviewer: az

Animal models of Immune disorders and antigen-antibody interactions in cultured cells / Use of minicircle plasmid DNA to generate a Th1 cytokine prone environment

NIH Guidelines: N/A Add: human blood

Approved by BSO (designated review)

R1758 Reviewer: jb

<u>Macaques as a model for influenza, Measles and AIDS pathogenesis, transmission, vaccine development and antiviral therapy</u>

NIH Guidelines: N/A

Add: zika virus and procedure to add Zika virus into NHP

Approved (9-0-0)

R1863 Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: N/A

Add: human cells and procedure to infect these cells with Zika virus

Approved (9-0-0)

C. Storage only:

R R2233 (Replacing 1044) Michailides, Themis Reviewer: vx

[Storage Only] Ecology, epidemiology, and control of fungal disease and post-harvest

contaminants of fruit and nut crops and vines

NIH Guidelines: N/A Approved (9-0-0)

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R R2255 (Replacing 0916B) DeGregorio, Michael Reviewer: vx

Antiestrogen Research NIH Guidelines: N/A

Conditional Approval Date: 3/28/2016

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E. Terminated BUAs:

0033-01 Payne, John Reviewer: nld

K-Cl cotransporters in neurons and epithelia

Exp date: 4/15/2016

0673 Hess, John Reviewer: mm

Identification of proteins that interact with vimentin Ifs

Exp date: 5/20/2016

1040 Pan, Zhongli Reviewer: mm

Effective disinfection of rough rice using UV radiation

Exp date: 3/18/2016

1018B Reviewer: pb

Stem and progenitor cell isolation, culturing and application in extracellular matrix

(ECM) bioscaffold augmentation

Exp date: 4/15/2016

V. Discussion Items: None

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 4:52 pm

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Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

May 23, 2016 (3:00 PM - 5:08 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and

Safety

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health

Services

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary

Services

Bruce Draper Voting Member, Molecular & Cellular Biology
Fred Jacobsen Voting Member, Public Member, Retired UCD
Betty Ma Voting Member, (Alternate) Campus Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, Environmental Health and

Safety

Chelsea Schiano High-Containment Facility Officer

Vivian Xian Associate Biosafety Officer, Environmental Health and

Safety

Adrienne Zweifel Associate Biosafety Officer, Environmental Health and

Safety

Excused:

Angela Gelli Voting Member, Chair Pharmacology

Diane Hoffman

Laurie Brignolo

Thomas Ferguson

Voting Member, School of Medicine Sponsored Programs

Voting Member (Alternate), Campus Veterinary Services

Non-Voting Ex-Officio Member, Medical Director, SHCS

Johan Leveau Voting Member, (Alternate) Plant Pathology

Jill Blackwelder-Parker Non-Voting Ex-Officio Member, Associate Vice Chancellor,

Safety Services

Curtis Plotkin Non-Voting *Ex-Officio* Member, Director, Environmental Health &

Safety

Victor Lukas Voting *Ex-Officio* Member, Attending Veterinarian

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Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health

Services

Guests:

Felecia Williams Safety Services

Call to Order: A *quorum* was established with 11 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Renee Tsolis, Interim IBC Chair. Jim Klenner, an external reviewer joins the meeting by phone.

I. Review of past IBC meeting minutes:

April 25, 2016

Approved (7-0-3; Bodine, Maga, and Ma abstained)

Special section on April 28, 2016

Approved (8-0-2; Bodine and Ma abstained)

Belcourt arrived

II. Announcements: None

III. Old Business:

BUAs tabled at the April 2016 IBC meeting: BSL3P

R R2245 (Replacing 0235-03) Falk, Bryce Reviewer: cs

RNA-interference to control insect vectors of plant pathogens

NIH Guidelines: IIID5a, IIIE2a, IIIE2b

Approved (11-0-0)

- Not shipping off campus
- o TRV no CDFA permit needed
- Training dates are inconsistent
- Asian Citrus Psyllid is not used as a vector
- Virus concentration selected but does not apply

IV. New Business:

A. New and renewal BUAs for review:

BSL₂

R **R2258** (Replacing 0910) Fraser, Christopher Reviewer: vx

The mechanism of mRNA recruitment to the human ribosome

NIH Guidelines: IIIE, IIIF8, App C-II

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Approved (10-0-0)

Risk Assessment; only 2 cell lines are mentioned, add other lines

R R2270 (Replacing 0917)

Regulation and role of protein kinase D in the heart

NIH Guidelines: IIID3a, IIID4a, IIIF8, App C-II

Approved (11-0-0)

- o Risk Assessment prompt regarding tail vein injections; clarify or remove
- Add animal housing location(s)
- Add IACUC protocol # where applicable
- N R2278
 Study of retinal ganglion cell and optic nerve development, cell and molecular biology, and pathology
 NIH Guidelines: IIID3e, IIID4a, IIIE, IIIE3, IIIF8, App C-II

Approved (10-0-0)

- Remove statement about exogenous expression from BUA
- R R2281 (Replacing 0547)

 Congenital and acquired diseases and corrective gene-based therapies

 NIH Guidelines: IIID3a, IIID1b, IIID3e, IIID4a, IIID4b

 Approved (10-0-0)
 - Proper names of collaborators should be removed from the Risk Assessment section
- R R2287 (Replacing 0904)

 Studying neuronal connectivity and function in the mammalian visual system using modified viral vectors

 NIH Guidelines: IIID1a, IIID4b

 Approved (11-0-0)
 - Add text "no known risks"
 - Housing locations of dosed animals is needed
 - IACUC protocol numbers needed
 - Risk Assessment; change CLAS to TRACS
 - o Remove Herpes B virus as known pathogen from NHP tissue
- R **R2289** (Replacing 0814) Reviewer: jb Pathogenesis of *Helicobacter pylori*

NIH Guidelines: IIID Approved (10-0-0)

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 Indicate that mouse carcasses will be incinerated in pathology waste stream

N **R2290** Yoon, John Reviewer: az

Metabolic regulation and human disease

NIH Guidelines: IIID1 **Approved (10-0-0)**

- Editorial changes; change "this risk is eliminated" to "this risk is minimized"
- R **R2293** (Replacing 0814) Reviewer: jb Immunodeficient mouse models of stem cell-mediated tissue repair NIH Guidelines: IIID3a, IIID1b, IIID4a **Approved (10-0-0)**
 - Confirm new transgenic lines are not being generated
 - o List all IRB numbers for "UCD" source human materials, if applicable
 - o Cat mesenchymal stem cells received from the UCD Vet School. Add IACUC protocol number of this source.

Reviewer: jk

R **R2296** (Replacing 0707-01) Ion channels in the mammalian nervous system NIH Guidelines: IIID3a, IIIE Extend 0707-01 by one month (11-0-0)

Tabled R2296 (11-0-0)

- AAV and adenoviral vector is listed together; should be separated
- Add risk assessment
- R **R2300** (Replacing 0921) Reviewer: az Pre-clinical lymphoma research using human cell lines and mice studies NIH Guidelines: IIID1 **Approved (10-0-0)**
 - Sheep & mouse blood does not need to be on the BUA
 - BBPECP & MWMP need to be uploaded to the BUA
 - Add IIIF8, apply CIII to NIH Guidelines section
 - o Specify how mouse injections are performed (e.g. are mice restrained or anesthetized?)

N **R2303** Reviewer: az Effects of functional feed additives or feed ingredients on growth performance

and health of pigs NIH Guidelines: N/A

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Approved (10-0-0)

- o Who will culture PRRSV, and where?
- Clarify disposal location

N R2309 Cullor, James Reviewer: jb

<u>Isolation and Identification of Bacteriophages</u>

NIH Guidelines: N/A Approved (10-0-0)

QIAGEN kit SOP not needed in BUA (remove)

Belcourt left meeting

BBP only

R **R2299** (Replacing 1043B) Liu, Gang-Yu Reviewer: jk Nano-engineering approach towards regulation of cellular signaling cascades NIH Guidelines: N/A

Conditional Approval (10-0-0)

- o Needs offer of hepatitis B vaccine
- No BBPECP or MWMP

BSL1

R **R2265** (Replacing 0507-01) Rowhani, Adib Reviewer: jk Molecular characterization, biological study, and detection of viruses in horticultural crops

NIH Guidelines: III-E

Extend 0507-01 by one month (10-0-0)

Table R2265 (10-0-0)

- Adequate description not provided, too brief
- No Section 7 Recombinant DNA risk assessment, even though plasmid and nucleic acids are listed on BUA

N R2291 Reviewer: az

Understanding the molecular basis for reprogramming gene expression in pre-implantation mouse embryo

NIH Guidelines: IIIE Approved (10-0-0)

- o Add IACUC protocol number
- o Add *E. coli* experimental procedures
- o Personnel needs rDNA training
- Indicate what the cells are used for
- Describe micro-injection procedures

May 23, 2016 FINAL Page **5** of **8**

R **R2301** (Replacing 0918) Drakakaki, Georgia Reviewer: az Understanding endomembrane trafficking and cell wall biosynthesis in plants NIH Guidelines: IIIE1

Extend 0918 by one month (10-0-0) Table R2301 (10-0-0)

- Minimally describe what are the biotic stressors
- o Indicate what is done with Phytophora capsisi
- No Risk Assessment
- Personnel needs rDNA training
- R **R2313** (Replacing 0030) Singer, Mitchell Reviewer: jb Identification of genes involved in *Myxococcus xanthus* development NIH Guidelines: IIIE

 Approved (10-0-0)
 - o rDNA training needed

B. Amendments:

BIO amendment:

BSL₂

R1711 Hull, Maury Reviewer: vx Effects of total knee arthroplasty surgical techniques on tibiofemoral and

patellofemoral kinematics and articular surface contact forces

NIH Guidelines: N/A

Add: beetles as means to remove soft tissues from human cadaveric lower extremities.

Approved (10-0-0)

Discussion by the IBC about how beetles are removed from specimens

R1847 Reviewer: az

The study of mouse and human pancreatic islets

NIH Guidelines: IIID

Add: lentiviral vector and human cells.

Approved (9-0-1; Ma abstained)

Move vector description to rDNA section & Risk Assessment

R2012 Reviewer: vx

Electric fields directed cell migration and wound healing and regeneration

NIH Guidelines: N/A

Add: bacterium Salmonella typhimurium.

Approved (10-0-0)

May 23, 2016 FINAL Page **6** of **8**

Describe how infected mice are moved from one lab to another

Amendment on SmartSite (old form):

BSL1

0924-01 Lein, Pamela Reviewer: vx

Cellular and molecular mechanisms of neurotoxicity

NIH Guidelines: IIIE

Add: recombinant work using SIV expression construct (plasmid) in rodent

cells

Approved (10-0-0)

Draper left meeting

C. Storage only:

R **R2297** (Replacing 0652) Moeller, Robert Reviewer: cs

Storage Only: Clostridium botulinum (Types A, B, C, D and E)

NIH Guidelines: N/A

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R R2256 (Replacing 0801) Reviewer: jk

<u>Development of Olfactory Circuitry</u> NIH Guidelines: IIID3b. IIID4a

Conditional Approval Date: 4/25/2016

R R2224 (Replacing 0903) Ross, Pablo Reviewer: jb

Production of induced pluripotent stem cells

NIH Guidelines: IIID, IIID1b

Conditional Approval Date: 3/28/2016

R **R2198** (Replacing 1037) Griffiths, Leigh Reviewer: jb

Extracellular matrix bioscaffold augmented with human stem cells for

cardiovascular repair NIH Guidelines: IIID1b

Conditional Approval Date: 2/22/2016

E. Terminated BUAs:

R1692 Reviewer: th

Molecular and epidemiologic characterization of bluetongue virus infection in

<u>California ruminants</u> *Exp date:* 08/18/2017

0099-04 Cornel, Anthony Reviewer: mmm

Culicine vector competence and its role in the transmission of avian malaria in

Central California Exp date: 05/20/2016

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0100-02B Troy, Frederic Reviewer: mmm

Function of PolySia degree of polymerization (DP) on human stem cells

Exp date: 05/20/2016

0539-02 Douglas, Gordon Reviewer: nld

Flow effects on trophoblast/endothelial interaction

Exp date: 1/28/2016

0875-01 Chromy, Brett Reviewer: nld

Clinical and basic proteomics research for infectious and other diseases

Exp date: 01/23/2015

0809 Pinkerton, Kent Reviewer: pb

The effect of environmental tobacco smoke exposure on pulmonary immune

development and infection Exp date: 05/20/2016

V. Discussion Items: None

VI. Information Items:

- Let Researchers Do Research Dr. Chris Calvert, Chair, Chemical & Laboratory Safety Committee and Gerry Westcott (EH&S)
 - **a.** Postponed (Dr. Calvert not able to attend)
- VII. IBC Training: None
- VIII. BSL3 Laboratory Information: HCFO provided oral report regarding the successful reverification of California Animal Health and Food Safety (CAHFS) BSL-3 lab. Reverification was performed on 05/17/2016. Committee voted to authorize facility operations for another year. Approved (9-0-0)
- IX. Notifications: None
- X. Subcommittee Topics: None

Reviewed with John Klenner on the phone (11 members)

R	R2270	
R	R2245	
R	R2287	
R	R2296	
R	R2299	
R	R2265	

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Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Special Session AGENDA July 7, 2016 (11:00am-11:30am) Conference Call

ReadyTalk Information:

Dial-in: 866-740-1260 Code:

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and Safety

Angela Gelli Voting Member, Chair Pharmacology

Renee Tsolis Voting Member, Medical Microbiology & Immunology

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary Services

Betty Ma Voting Member, (Alternate) Campus Veterinarian

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Excused:

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services

Bruce Draper Voting Member, Molecular & Cellular Biology
Fred Jacobsen Voting Member, Public Member, Retired UCD
Johan Leveau Voting Member, (Alternate) Plant Pathology

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Thomas Ferguson Non-Voting Ex-Officio Member, Medical Director, SHCS

Eric Kvigne Non-Voting *Ex-Officio* Member, Interim Associate Vice Chancellor,

Safety Services

Curtis Plotkin Non-Voting *Ex-Officio* Member, Director, Environmental Health & Safety

Neil Speth Non-Voting Ex-Officio Member, UCDMC Employee Health Services

Call to Order: A *quorum* was established with 7 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 11:02 am by Angela Gelli, IBC Chair.

I. Review of past IBC meeting minutes: N/A

II. Announcements: None

III. Old Business: None

July 7, 2016 FINAL Page 1 of 2

IV. New Business:

BIO amendment:

BSL2

R2109 Reviewer: az

Persistence and susceptibility of poultry viruses to chemicals and characterization of the immune responses and pathology generated in chickens

NIH Guidelines: N/A (animal pathogen)

Add: Avian Reovirus

Conditionally Approved (7-0-0)

- Discuss how cardboard boxes will be decontaminated.
- o Discuss how many viruses will be characterized.
- State whether control animals will be housed in different rooms.
- Verify that rooms where infected animals will be housed are labeled.
- Verify the location where necropsies are performed.

V. Discussion Items:

New VA IBC member – Dr. Hongwu Chen (see CV)

Approved (7-0-0)

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

July 7, 2016 FINAL Page 2 of 2

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

June 27, 2016 (3:03 PM - 5:22 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and

Safety

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health

Services

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary

Services

Bruce Draper Voting Member, Molecular & Cellular Biology
Johan Leveau Voting Member, (Alternate) Plant Pathology
Victor Lukas Voting Ex-Officio Member, Attending Veterinarian
Betty Ma Voting Member, (Alternate) Campus Veterinarian

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, Medical Microbiology & Immunology

Curtis Plotkin Non-Voting Ex-Officio Member, Director, Environmental Health &

Safety

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, Environmental Health and

Safety

Chelsea Schiano High Containment Facility Officer

Vivian Xian Associate Biosafety Officer, Environmental Health and

Safety

Adrienne Zweifel Associate Biosafety Officer, Environmental Health and

Safety

Excused:

Angela Gelli Voting Member, Chair Pharmacology

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Fred Jacobsen Voting Member, Public Member, Retired UCD Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Laurie Brignolo
Thomas Ferguson
Neil Speth
Voting Member (Alternate), Campus Veterinary Services
Non-Voting Ex-Officio Member, Medical Director, SHCS
Non-Voting Ex-Officio Member, UCDMC Employee Health

Services

June 27, 2016 FINAL Page 1 of 9

Guests:

Gerry Westcott Environmental, Health & Safety

Chris Calvert Chemistry Laboratory Safety Committee

Koen Van Rompay CNPRC Gregory Hodge CNPRC

Felecia Williams Safety Services

Call to Order: A *quorum* was established with 8 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:03 pm by Renee Tsolis, Interim IBC Chair.

I. Review of past IBC meeting minutes:

May 23, 2016 Approved (8-0-0)

 Change to attendees list for May minutes; Stergiopoulos was present, Leveau was not.

II. Announcements:

 Dr. Lukas was presented with a plaque as a thank you for his service to the IBC and the University.

III. Old Business:

BUAs tabled at the May 23, 2016 IBC meeting:

BSL₂

R **R2296** (Replacing 0707-01)

Reviewer: az

lon channels in the mammalian nervous system

NIH Guidelines: IIID3a, IIID3e, IIIE

Approved (8-0-1; Maga abstained); Maga joined the meeting

- Move CHO to established cells lines
- Animal housing information is needed
- o De-identified brain tissues and cells

BSL₁

R R2265 (Replacing 0507-01) Rowhani, Adib Reviewer: jb Molecular characterization, biological study, and detection of viruses in horticultural crops

NIH Guidelines: III-E Approved (9-0-0)

- Description of completed study isn't needed
- o Confirm autoclaving of infectious waste

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R **R2301** (Replacing 0918) Drakakaki, Georgia Reviewer: az <u>Understanding endomembrane trafficking and cell wall biosynthesis in plants</u> NIH Guidelines: IIIE1 <u>Tabled (9-0-0)</u>

Old BUA extended for 1 month.

IV. New Business:

A. New and renewal BUAs for review:

BSL₂

N R2311

Understanding calcium signaling and excitation-contraction coupling in cardiac muscle

NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II

Approved (9-0-0)

- Animal housing location requested
- R R2314 (Replacing 1053)

 Noncoding RNAs pharmacoepigenetics and therapy
 NIH Guidelines: IIID1, IIIE1, IIIF8, App C-II
 Approved (9-0-0)
 - Change the word "infect" to "transduce"
 - Remove "mouse release" sentence
- R **R2317** (Replacing 1052) Parkinson, Nina Survival of vegetative pathogens in acidified foods NIH Guidelines: N/A Approved (9-0-0)
 - Risk Assessment change to 10% bleach
 - Add how they plan to inactivate medical waste
 - Change "red autoclave bag" to "red biohazard bag"
 - o For accidental exposure, add the clinic in Dublin, CA
- R R2318 (Replacing 1050)

 Therapeutic and prophylactic interventions against agents of chronic infection including HIV and HCV

 NIH Guidelines: IIIID/E

 Approved (9-0-0)

Reviewer: az

June 27, 2016 FINAL Page 3 of 9

- Add the providers for the human blood & tissue
- Identify housing for the NHPs
- Confirm transgenic animals are not being generated
- Add strep-pneumonia to project summary
- R R2320 (Replacing 0924-01B) Lein, Pamela

 <u>Cellular and molecular mechanisms of neurotoxicity</u>

 NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II

 Approved (9-0-0)
 - Discussion as to whether or not Morpholinos are recognized by cells as DNA

Reviewer: vx

- R R2321 (Replacing 0909-01)

 Monitoring the role of neutrophils during skin wound healing and infection by tissue fluorescence imaging

 NIH Guidelines: IIID4a

 Approved (9-0-0)
 - Can 10% bleach be used instead of 70% ethanol for human cells?
 - o Clarify why is N95 used
 - o Add a medical waste management plan
- R R2322 (Replacing 0923) Coleman, Matthew Reviewer: vx Characterization of genes and proteins associated with ionizing radiation exposure and cancer
 NIH Guidelines: IIIE, IIIF8, App C-II

Approved (9-0-0)

- Add location for radiation procedure
- Correct the sentence about phlebotomist
- Provide transformation method for insect cells
- R R2327 (Replacing 0664)

 Epizootic Bovine Abortion Agent (aoEBA): Organism characterization and development/use of a mouse model

 Reviewer: jb

NIH Guidelines: IIIE

Conditional Approval (9-0-0)

- o For NIH Guidelines, IIIE, add E. coli
- Risk Assessment sharps container color does not need to be specified;
 the container cannot have the biohazard sticker on it.
- Will ticks be controlled in bovine housing facility (pest control program)?
- NIH Guidelines training is needed for PI
- Remove sentence regarding hood

June 27, 2016 FINAL Page 4 of 9

R **R2330** (Replacing 0674) Pollard, Richard Reviewer: az

Immunology and virology research in HIV infected subjects

NIH Guidelines: N/A

Tabled (9-0-0); extend BUA 0674 by one month

- 70% ethanol is for disinfecting packaging; for other BBP concerns, can
 10% bleach be used or a hospital grade disinfectant?
- "Glass and XX are disposed as medical waste sharps" what is XX?
- Add description of experiments, preparation of samples and cytometer location.
- Add HIV/HCV information
- N R2339 Dickson, Eamonn Reviewer: jb

<u>Understanding the fundamental lipid-protein interactions that shape membrane identity and excitability.</u>

NIH Guidelines: IIIF Approved (9-0-0)

Risk Assessment – washing procedures should be clarified

N R2347 Reviewer: jb

The Development and Function of Natural Killer (NK) Cells

NIH Guidelines: IIID/E Approved (9-0-0)

- Risk Assessment and prevention add risk minimization discussion
- Add herpes B virus training at CNPRC

BBP only

R **R2328** (Replacing 1051) Van de Water, Judy Reviewer: az Determination of immunoreactivity to fetal brain proteins.

NIH Guidelines: N/A

Approved

- Remove other PI's name from project summary
- Instead of 70% ethanol, use 10% bleach or other hospital grade disinfectant

BSL1

N **R2316** Tan, Cheemeng Reviewer: az

<u>Unraveling dynamical coupling between gene expression and cellulosome</u> assembly

NIH Guidelines: IIIE1, IIIF8, App C-II

Approved (9-0-0)

June 27, 2016 FINAL Page **5** of **9**

- Clarify bleach disinfection 10% bleach final concentration, 30 minutes
- Add autoclave parameters

B. Amendments:

BIO amendment:

BSL₂

R1758 Reviewer: jb

Macaques as a model for influenza, Measles and AIDS pathogenesis, transmission, vaccine development and antiviral therapy

NIH Guidelines: N/A

Remove: Requirement to wear N95 respirators during necropsy of ZIKV-

infected NHPs Approved (9-0-0)

- No aerosols are generated during necropsy
- There's a downdraft table
- o Use of regular PPE is requested; surgical mask & face shield

R1842 Reviewer: cs

The mechanism of action of *C. perfringens* enterotoxin; *C. perfringens* type B-D virulence plasmids; *In vivo* adhesins of *Clostridium difficile* and *Clostridium perfringens*

NIH Guidelines: IID1a

Add: procedures for making new *C. perfringes* (type A and type C) mutants Approved (9-0-0)

rDNA training is needed for one person

R1863 Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: N/A

Remove: Requirement to wear N95 respirators during necropsy of ZIKV-

infected NHPs Approved (9-0-0)

- No aerosols are generated during necropsy
- There's a downdraft table
- Use of regular PPE is requested; surgical mask & face shield

Storage only

R1613 Wuertz, Stefan Reviewer: jb

Management of pathogens in stormwater run off and bacterial diversity in

wastewater reactors NIH Guidelines: N/A

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Change to storage only BUA Approved (9-0-0)

o Storing of E. coli

C. Storage only:

N R2292 Crossley, Beate Reviewer: cs

[Storage only] Avian Exotic Newcastle Disease virus - Storage only

NIH Guidelines: N/A Approved (9-0-0)

R **R2297** (Replacing 0652) Moeller, Robert Reviewer: cs

[Storage Only] Clostridium botulinum (Types A, B, C, D and E)

NIH Guidelines: N/A Approved (9-0-0)

R **R2324** (Replacing 0102-02) Rowe, Joan Reviewer: vx

[Storage only] Caprine arthritis-encephalitis virus (CAEV) infected cells in preand post-partum goats: Long term CAEV follow up and Q fever prevalence

NIH Guidelines: N/A Approved (9-0-0)

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R R2242 (Replacing 1045) Reviewer: jk

Biological examination and potential therapeutic applications of discarded human surgical waste; biological examination of animal model tissue

NIH Guidelines: IIID3b, IIID4a

E. Terminated BUAs:

R1716 Hertz-picciotto, Irva Reviewer: az

Early Autism Risk Longitudinal Investigation (EARLI)

Exp date: 6/15/2018

R1815 Cullor, James Reviewer: th

STORAGE RF and MSDD treatment for the disinfection of STEC (Shiga-toxin

producing *E. coli*) Exp date: 12/15/2017

R1816 Cullor, James Reviewer: th

QPCR identification of Norovirus in bovine milk and feces

Exp date: 12/15/2017

R1817 Cullor, James Reviewer: th

Effect of combined spray process on almonds inoculated with Salmonella

Enteritidis (ATCC 1045) and Enterococcus faecium (NRRL B-2354)

Exp date: 12/15/2017

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0714-03 Asmuth, David Reviewer: mmm

Immunology and virology research in HIV infected subjects

Exp date: 7/5/2016

0821 Reviewer: nld

Naphthalene metabolism in tissue pieces of the respiratory tract from NHP

Exp date: 9/16/2016

0934B Kreutzer, Ulrike Reviewer: nld

STORAGE ONLY: Human cell lines

Exp date: 9/16/2016

1034 Jialal, Ishwarlal Reviewer: pb

Assessing inflammatory markers to predict events in nephrology trial;

Inflammation and diabetes

Exp date: 1/28/2016

V. Discussion Items:

- 1. Herpes B information and quiz for NHP tissue users Barruel and Zweifel Approved (8-0-0); Belcourt left the meeting
 - Add reference list
 - Occupational Health Services in Sacramento
 - o Antivirals
- 2. IBC Subcommittee for reviewing VHSS documents Barruel and Zweifel Approved (8-0-0)
 - VHSS for vivarium staff only
 - IBC subcommittee volunteers: Nicole Corley, Greg Hodge (ad hoc), and ad hoc members based on expertise
- 3. BUAs for purchase of animals already injected with human materials for tumor models? Zweifel
 - The IBC wants to see all BUAs for these.

VI. Information Items:

- "Let Researchers Do Research" Dr. Chris Calvert, Chair, Chemical & Laboratory Safety Committee and Gerry Westcott (EH&S) Approved (8-0-0)
- 2. Project update for BUA C1960 by Jonathan Ducore Barruel Approved (8-0-0)

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- C1960 by J. Ducore & C2143 by Dr. John Laird no study participants, no change in investigational product
- 3. Dr. Irva Hertz-Picciotto's BUA researcher incident: blood from a human placenta leaked onto the cloth seat of their study car Zweifel

VII. IBC Training: None

VIII. BSL3 Laboratory Information

IX. Notifications: None

X. Subcommittee Topics: None

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Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

August 22, 2016 (3:02 PM - 4:44 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, EH&S

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Hongwu Chen Voting Member, MED: Biochemistry & Molecular Medicine

Nicole Corley Voting Member, Campus Veterinary Services
Angela Gelli Voting Member, IBC Chair, MED: Pharmacology

Fred Jacobsen Voting Member, Public Member

Betty Ma Voting Member, Alternate, Campus Veterinary Services

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, EH&S Chelsea Schiano High Containment Facility Officer, EH&S

Vivian Xian Associate Biosafety Officer, EH&S Adrienne Zweifel Associate Biosafety Officer, EH&S

Excused:

Johan Leveau Voting Member, Alternate, Plant Pathology

Laurie Brignolo Voting Member, Alternate, Campus Veterinary Services Thomas Ferguson Non-Voting *Ex-Officio* Member, Medical Director, SHCS

Curtis Plotkin Non-Voting Ex-Officio Member, Director, EH&S

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Ioannis Stergiopoulos Voting Member, Alternate, Plant Pathology

Renee Tsolis Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology

Guests:

Laurel Gershwin Vet Med: Pathology, Micro. & Immun.

Angelina Madrigal-Alonso Safety Services

Mitchell McCartney Mechanical and Aerospace Engineering

Call to Order: A *quorum* was established with 8 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:02 pm by Angela Gelli, IBC Chair.

I. **Review of past IBC meeting minutes:**

July 25, 2016

Approved (6-0-2, Ma and Gelli abstained)

II. **Announcements:**

• Introduction of Dr. Hongwu Chen (arrived at 3:06pm)

III. **Old Business:**

BUAs tabled at the October 19, 2015 IBC meeting:

R **R2087** (Replacing 0881B)

Linking contractile dysfunction to cardiac arrhythmias

NIH Guideline: N/A Approved (8-0-0)

H. Chen arrived

BUAs tabled at the July 27, 2016 IBC meeting:

R **R2323** (Replacing 0208)

Reviewer: az Immune Response to Pathogens in Livestock

NIH Guidelines: N/A Approved (9-0-0)

Guest:

TRACS transports animals to CAHFS (make change in BUA)

N95 for respiratory protection, instead of surgical masks

BSL1

R **R2301** (Replacing 0918) Drakakaki, Georgia Reviewer: az Understanding endomembrane trafficking and cell wall biosynthesis in plants NIH Guidelines: IIIE1a Approved (9-0-0)

IV. New Business:

A. New and renewal BUAs for review:

BSL₃P

R **R2357** (Replacing 793-02) Davis, Cristina Reviewer: cs Longitudinal study of HLB-induced volatile organic compound (VOC) release NIH Guidelines: N/A Approved (9-0-0)

Guest: Mitchell McCartney

Reviewer: az

BSL₂

R **R2351** (Replacing 0942-03)

Reviewer: az

Continued NK therapies against xenograft tumors and the role of CSCs

NIH Guidelines: IIID4a Approved (9-0-0)

o Incomplete sentence under "experimental procedures"

- o Where do the lymph node samples come from; from what mice?
- Need IRB information

R **R2355** (Replacing 0817)

Kim, Jinoh

Reviewer: vx

Intracellular protein transport

NIH Guidelines: IIID3e, IIIE, IIIE3, IIIF8, App C-II

Approved (9-0-0)

R **R2388** (Replacing 1058)

Reviewer: az

Optogenetic and chemogenetic modulation of itch and pain

NIH Guidelines: IIID4a

Approved (9-0-0)

- Under "Risk Assessment-Experimental Procedures" section, it is not clear
 if biopsies are being done in biosafety cabinet. If they are not being done
 in biosafety cabinet, add barrier mask to required PPE
- Under "Risk Assessment-Infectious Agents" section, add what is exposure risk of HSV virus
- Add that it is biohazardous waste

N **R2405** Kable, Mary Reviewer: vx

<u>Understanding dietary influences on host-bacteria interactions that affect</u> susceptibility to food borne pathogens.

NIH Guidelines: N/A Approved (9-0-0)

N R2413 DiCaprio, Erin Reviewer: jb

Food-borne virus research NIH Guidelines: N/A

Approved (9-0-0)

Hepatitis E virus not listed under "biological materials" – add.

- Under "experimental procedures" section, clarify "bleach disposable sharps" liquid cannot be in the sharps container.
- Add statement about use of surgical mask when working in biosafety cabinet to protect from potential splashes.

BBP only

R **R2350** (Replacing 1057B) Schumann, Cynthia Reviewer: vx <u>Processing and storage of unfixed human tissue for the BEARS program</u>

NIH Guidelines: N/A Approved by BSO

R R2354 (Replacing 1060B) Ashwood, Paul Reviewer: jb

<u>Immunological Investigations into Neurodevelopmental Disorders</u>

NIH Guidelines: N/A Approved by BSO

R **R2356** (Replacing 0938) Miyamoto, Suzanne Reviewer: az Investigation into human biomarkers for cancer detection and enriching cancer stem cells from human specimens

NIH Guidelines: N/A Approved by BSO

R R2386 (Replacing 1060B) Kenyon, Nicholas Reviewer: jb

Randomized Trial of L-arginine in Severe Asthma Patients Grouped by

Exhaled Nitric Oxide Levels

NIH Guidelines: N/A Approved by BSO

N R2397 Zivkovic, Angela Reviewer: jb Interaction of diet components and the gut microbiome in preventing chronic inflammatory diseases, and its effect on HDL composition and function

NIH Guidelines: N/A Approved by BSO

BSL1

N R2312 McKenney, Richard Reviewer: vx
Regulation of Cytoplasmic Dynein Motility in Neuronal Transport
NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II
Approved (9-0-0)

- How are transgenic flies transported back to campus?
- R R2352 (Replacing 0708) Leal, Walter Reviewer: vx Cloning of insect olfactory genes and expression of the proteins they encode NIH Guidelines: IIIE

 Approved (9-0-0)

N R2381 Toney, Michael Reviewer: az

Engineering Beta-solenoid proteins

NIH Guidelines: IIIE1a Approved (9-0-0) N **R2402** Leite, Juliana Reviewer: az

<u>Conversion of Agricultural Waste Streams into Feed, Food, Fuel and</u> Industrial Ingredients

NIH Guidelines: N/A Approved (9-0-0)

N R2409 Runcie, Daniel Reviewer: jb Molecular mechanisms of flowering time control in dynamic environments
NIH Guidelines: IIIE1
Approved (9-0-0)

- Add that if they find plant outside of contained space, they will destroy it.
- Clarify whether manipulation of flowering gene enhances fitness of organism in the wild.
- Where are plants coming from? (If from other lab, is there a BUA in place? If out of state is permit required?)

B. Amendments:

BIO amendment:

BSL₂

R1660 Reviewer: az

<u>Infectious diseases of dogs and cats and zoonotic bloodborne bacterial infections</u>

NIH Guidelines: N/A

Add: Inoculation of mice with MRSA, and changing infectious dose and vertebrate maximum concentration for previously approved MSSA Approved (9-0-0)

- Add disinfection protocol for imaging equipment
- Ensure that personnel know risks of MRSA and MSSA

R1753 Reviewer: vx

<u>Cartilage Homeostasis: From regulation of stem cell chondrogenesis and endochondral ossification, to cartilage remodeling enzymes, to identification of pathological cartilage breakdown processes</u>

NIH Guidelines: IIID4a

Add: Procedure to inject human transduced cells into mice Approved (9-0-0)

- Provide room information for animal housing
- B. Ma left meeting

R1863 Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: N/A

Add: Transport and imaging of ZIKV-infected NHPs

Approved (8-0-0)

- IBC delegates authority to Biosafety Officers to evaluate that NHP are no longer viremic. Lab should notify a Biosafety Officer 24 hours before planned transport.
- Add absorbent material in bottom of transport box.
- Add that transport box will be cleaned with disinfectant active against ZIKV.

R1903 Reviewer: az

Genomic Engineering and Categorization of Mammalian Systems

NIH Guidelines: IIID4a

Add: AAV and lentivirus use in mice

Approved (8-0-0)

Indicate BSL for rooms

Reviewer: vx

Molecular mechanisms of cardiac arrhythmias and heart failure

NIH Guidelines: IIID4b

Add: Procedure to inject FIV particles into rats for gene knock-down experiments Approved (8-0-0)

Add animal housing location information

C. Storage only:

R2065 Tsolis, Renee Reviewer: cs

Storage only: Mycobacterium tuberculosis

NIH Guidelines: N/A Approved (8-0-0)

R2340 Crossley, Beate Reviewer: cs

High Pathogenic Avian Influenza Virus

NIH Guidelines: N/A Approved (8-0-0)

R2353 (Replacing 0724) Parales, Rebecca Reviewer: az

Bacterial degradation and sensing of aromatic compounds

NIH Guidelines: IIIE1a Approved (8-0-0)

R2362 Reviewer: cs

<u>Pigeon Paramyxovirus (PPMV)</u>

NIH Guidelines: N/A

Approved (8-0-0)

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R R2285 (Replacing 0927) Leslie, Charles Reviewer: jk

Walnut Improvement Program

NIH Guidelines: IIIE

Conditional Approval Date: 7/25/2016

R R2334 (Replacing 1054B) Heinrich, Volkmar Reviewer: az

Biophysical properties of blood cells

NIH Guidelines: N/A

Conditional Approval Date: 7/25/2016

E. Terminated BUAs:

1028-02 Reviewer: nld

Research in prevention and understanding of poultry diseases

Exp date: 11/30/2016

F. Extension of old BUAs: None

V. Discussion Items: None

VI. Information Items:

The IBC needs more members. Existing IBC members were encouraged to help recruit for new IBC members. BSO and IBC Chair will consider possible member recruitment strategies.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications:

NIH OBA Report – Sharps injury possibly resulting in exposure to lentiviral vector that is vectoring EGFP. Sharp was a pulled glass micropipette. Student didn't "feel" the prick, but saw a possible puncture site on one finger. After consultation with the Occupational Health Physician, the student decided not to take the anti-retroviral prophylaxis.

X. Subcommittee Topics: None

Adjournment: 4:44 pm

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

October 24, 2016 (3:00 PM - 4:53 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, EH&S

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Nicole Corley Voting Member, Campus Veterinary Services

Fred Jacobsen Voting Member, Public Member

Betty Ma Voting Member, Alternate, Campus Veterinary Services

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Ioannis Stergiopoulos Voting Member, Alternate, Plant Pathology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, EH&S
Chelsea Schiano High Containment Facility Officer, EH&S
Vivian Xian Associate Biosafety Officer, EH&S
Adrienne Zweifel Associate Biosafety Officer, EH&S

Excused:

Laurie Brignolo Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen Voting Member, MED: Biochemistry & Molecular Medicine
Thomas Ferguson Non-Voting *Ex-Officio* Member, Medical Director, SHCS

Angela Gelli Voting Member, IBC Chair, MED: Pharmacology Johan Leveau Voting Member, Alternate, Plant Pathology Curtis Plotkin Non-Voting *Ex-Officio* Member, Director, EH&S

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services Renee Tsolis Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology

Guests:

Tiffany Kwok UC Riverside Assistant Biosafety Officer Angelina Madrigal-Alonso Executive Assistant, Safety Services

Call to Order: A *quorum* was established with 8 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Elizabeth Maga, Acting IBC Chair.

I. Review of past IBC meeting minutes:

August 22, 2016

Approved (7-0-1, Maga abstained)

II. Announcements:

- Dennis Hartigan-O'Connor is new IBC member (virologist specialist) and committee voted to accept Dr. Hartigan-O'Connor as a voting member. Approved (8-0-0)
- IBC committee voted on having Maga serve as acting IBC chair for this meeting Approved (7-0-1, Maga abstained)

III. Old Business:

None

IV. New Business:

A. New and renewal BUAs for review:

BSL₃

R **R2395** (Replacing 0347-02)

Luciw, Paul

Reviewer: cs

<u>Titration of *Mycobacterium tuberculosis* by bacterial culture</u>

NIH Guidelines: NA

Conditionally Approved (7-0-1, Barruel abstained)

- o Cell lines should be listed as BSL2 and not BSL3.
- o Clarify that all work is done in a BSC
- Clarify BSL2 & BSL3 PPE
- Make room designations more generic
- Need to show more data and documentation for the inactivation procedure on materials that they bring out of the BSL-3
- Need to lock freezer where samples are kept

BSL₂

R **R2376** (Replacing 0553)

Reviewer: jb

<u>Development of vaccines for treatment of cancer and prevention of infectious</u> diseases

NIH Guidelines: IIID3a, IIID3e, IIID4a, IIIF8 App C-II

Conditionally Approved (8-0-0)

- o Old BUA already extended for 1 month
- Discussion about containment of adenovirus vector
- Reads like three research studies all in one BUA, there is a lot going on, ask PI to split into multiple projects for the next renewal.
- Sharps used for injecting dogs but nothing about how dogs are restrained during injection, clarify.

 Suggestion: Separate cancer vaccine from disease vaccine into two different BUA's

R **R2383** (Replacing 1062)

Albeck, John

Reviewer: jb

Decoding signaling dynamics at the single-cell level

NIH Guidelines: IIID3b, IIIE, IIIF8 App C-II

Approved (8-0-0)

R **R2392** (Replacing 0941)

Reviewer: vx

Reviewer: vx

Investigating the molecular and genetic mechanisms of neural development using recombinant vectors and transgenic mice

NIH Guidelines: IIIE, IIIF8, App C-II, VII, and VIII

Approved (8-0-0)

o Clarify that sharps are being used for animal dissecting

N R2446 Reviewer: vx

Sustained correction of hemophilia A

NIH Guidelines: IIID3b, IIID4a

Approved (8-0-0)

N **R2447**

Substitute "unused tissue" for "discarded tissue"

Urban Agriculture and Food Safety Laboratory

NIH Guidelines: N/A Approved (8-0-0)

> Add a sentence to indicate that sheep is the only animal species that personnel at UC Davis will come in contact with

N R2452 Reviewer: jb

New methods for the study of oogenesis

NIH Guidelines: IIID1a, IIID4b, IIIE, IIIF8 App C-II

Approved (8-0-0)

- All in vitro work, nothing injected into animals
- Remove "healthy animals" and replace with "slaughterhouse", for donor tissue origin
- Confirm not creating transgenic cows and have BUA reflect this
- Correct spelling errors
- Remove paraformaldehyde operations
- o Change "transfection" to "transduction"

BBP only

R **R2391** (Replacing 0950) Sharp, Frank Reviewer: jb Analyses of DNA/RNA from human blood in neurological and neurodevelopmental disorders

NIH Guidelines: N/A

Conditionally approved (8-0-0)

- Either use BSC when working with blood or use plexiglass shield, or address through adequate PPE- add surgical mask usage.
- No need for ATP plan, remove.

N R2444 Panitch, Alyssa Reviewer: jb

Endothelial dysfunction and vascular repair

NIH Guidelines: N/A Approved by BSO

Pl's BBP training

N R2453 Tassone, Flora Reviewer: az

Fragile X molecular diagnosis of human specimens.

NIH Guidelines: N/A Approved by BSO

IRB # in project summary should be deleted

- o Clarify whether or not all samples de-identified
- o Add mention of BBP training of staff
- o BBP training date is missing for one person

BSL1

N R2382 Tan, Cheemeng Reviewer: az

The engineering of antibacterial artificial cells

NIH Guidelines: IIIE1 Approved (8-0-0)

- Too condensed; experiment is not adequately described
- o Clarify which bacterial genes are targeted
- Under Risk Assessment, paragraphs are duplicated

R R2387 (Replacing 1059) Cantu, Dario Reviewer: vx

Genomics of disease resistance and fungal pathogenicity in grape

NIH Guidelines: IIIE, IIIE2b, IIIF8, App C-II

Approved (8-0-0)

R **R2396** (Replacing 0089)

Reviewer: az

Hormonal control of gene expression during development and homeostasis

NIH Guidelines: IIID4a, IIIE1

Approved (8-0-0)

- Use of CRISPR/9
- Use of potential oncogenes

N R2408 Montpetit, Benjamin Reviewer: az

Mechanisms and dynamics of mRNA export from the nucleus

NIH Guidelines: IIIÉ1 Approved (8-0-0)

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- Too condensed experimental procedures
- Fix bleach and autoclave conditions
- Texts in Risk Assessment section are in wrong boxes
- Missing training for one person

R **R2436** (Replacing 1059)

St. Clair, Dina

Reviewer: vx

Investigation of genes controlling quantitatively inherited traits in tomato

NIH Guidelines: IIIE, IIIE2a, IIIF8, App C-II

Approved (8-0-0)

- o Delete duplicate texts in nucleic acids section
- Recommend to change autoclaving time for soil and plant materials with soil to 1 hour from 30 minutes

N R2440 Simmons, Christopher Reviewer: vx

Biosolarization as a fumigant alternative for controlling plant parasitic

nematodes

NIH Guidelines: N/A Approved (8-0-0)

B. Amendments:

BIO amendment:

BSL3

R1616 Tsolis, Renee Reviewer: cs

Mechanisms of infection by intracellular bacterial pathogens

NIH Guidelines: IIID3b

Add: Lentiviral vector for knocking down expression of selected genes (in cell lines)

Approved (8-0-0)

- o Remove specific room information from Risk Assessment section
- Personnel needs updated training

BSL2

R2252 Reviewer: jb

Evaluation of protective CMV vaccines in Rhesus macaques

NIH Guidelines: N/A

Add: culturing of SIV mac239, new human cell line

Approved (8-0-0)

Add that work is done in BSC

R2343 Reviewer: az

Mucosal immunity to respiratory pathogens

NIH Guidelines: N/A

Add: Inoculation of Influenza into macagues

Approved (8-0-0)

Clarify follow-up procedures in case of exposure to influenza

- Need IACUC protocol #
- Specify BSL (Need to add under Experimental Procedures)
- Under Risk Assessment: would like clarification of elevated PPE
- Clarify whether or not N95 will be used
- Vaccine is now quadrivalent (not trivalent)

BSL₁

R2360 Chomel, Bruno Reviewer: jb

Isolation and Identification of Bacteriophages

NIH Guidelines: IIIE

Add: clone endolysin genes from Bacteriophages into *E. coli* expression

systems.

Approved (8-0-0)

C. Storage only:

R R2368 (Replacing 0911 S/O) Horne, Mary Reviewer: jb

Storage only: Human cells and cell lines

NIH Guidelines: N/A Approved (8-0-0)

R R2389 Armstrong, Peter Reviewer: vx

Storage Only: The blood clot as an agent of the innate immune system

NIH Guidelines: N/A Approved (8-0-0)

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

N R2438 Reviewer: jb

Nutritional modulation of host resilience to infection during pre- and post-

weaning period NIH Guidelines: N/A

Conditional Approval Date: 9/26/2016

E. Terminated BUAs:

0081 Shiozaki, Kazuhiro Reviewer: pb

Stress signal transduction pathway in Schizosaccharomyces pombe

Exp date: 9/16/2016

0820 Ito, Takayuki Reviewer: nld

Cell lineage specific manipulation of gene expression in the mouse nervous system

Exp date: 9/16/2016

V. Discussion Items:

IBC member BUA assignments (Barruel)

 Propose to go from 4 BUA reviewers per protocol to 2 (primary & secondary). If the IBC makes this change, if a member is not able to attend a meeting, they will need to send their comments to the Biosafety team.

VI. Information Items:

- 1. Campus Medical Waste Management Plan (MWMP) (Baugh)
 - o There will be less burden on researchers (UCD campus) and Biosafety team now that there is one campus wide medical waste plan.
 - At November meeting it will be discussed if the BUAs need attached a copy of the Medical Center MWMP.

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

- 1. UC System-wide High-Containment Facility Oversight Group (Schiano)
 - There was a meeting at UC Irvine on October 14th and a chair and vice-chair were elected. (Chair: Dr Philip Liu from UCLA and Vicechair: Sheryl Major from UCSD)
- 2. Review of CCM BSL3 for airflow in facilities.
 - Facility was tested for airflow reversals during single and double exhaust fan failures on 10/20/16
 - Facility showed minimal reversals to the anteroom during fan failure testing (all under 10 seconds) and only a short 6 second reversal that went all the way to a public corridor.
 - Schiano recommends that the facility be authorized to continue work for the next year. The IBC had to vote on this authorization.

Approved (8-0-0)

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 4:53 pm

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

July 25, 2016 (3:03 PM - 5:09 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, Environmental Health and

Safety

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health

Services

Nicole Corley Voting Member, Interim Vice-Chair, Campus Veterinary

Services

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Ioannis Stergiopoulos Voting Member (alternate), Plant Pathology

Renee Tsolis Voting Member, Medical Microbiology & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, Environmental Health and

Safety

Chelsea Schiano High Containment Facility Officer

Adrienne Zweifel Associate Biosafety Officer, Environmental Health and

Safety

Excused:

Angela Gelli Voting Member, Chair Pharmacology

Sue Bodine Voting Member, Neurobiology, Physiology, and Behavior;

Representative, VA Northern California Health Care System

Diane Hoffman Voting Member, School of Medicine Sponsored Programs

Johan Leveau Voting Member, (Alternate) Plant Pathology
Fred Jacobsen Voting Member, Public Member, Retired UCD
Betty Ma Voting Member, (Alternate) Campus Veterinarian

Laurie Brignolo Voting Member (Alternate), Campus Veterinary Services Thomas Ferguson Non-Voting *Ex-Officio* Member, Medical Director, SHCS

Curtis Plotkin Non-Voting Ex-Officio Member, Director, Environmental Health &

Safety

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health

Services

Vivian Xian Associate Biosafety Officer, Environmental Health and

Safety

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Guests:

Eric Kvigne Safety Services Angelina Madrigal-Alonso Safety Services

CAHFS

Call to Order: A quorum was established with 6 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:03 pm by Renee Tsolis, Interim IBC Chair.

Review of past IBC meeting minutes:

June 27, 2016 July 7, 2016 Phone Meeting
Approved (6-0-0) Approved (4-0-2; Najita and Jacobsen abstained)

II. **Announcements:**

Belcourt and Maga joined the meeting

III. Old Business:

BUAs tabled at the May 23, 2016 IBC meeting:

R **R2301** (Replacing 0918) Drakakaki, Georgia Reviewer: az Understanding endomembrane trafficking and cell wall biosynthesis in plants NIH Guidelines: IIIE1a

Tabled (8-0-0)

- Not enough info under "Risk Assessment" section
- Determine whether permits are needed
- o From where are plants being imported?
- Old BUA extended for 1 month.

BUAs tabled at the June 27, 2016 IBC meeting:

BSL₁

R **R2330** (Replacing 0674) Pollard, Richard Reviewer: az

Immunology and virology research in HIV infected subjects

NIH Guidelines: N/A Approved (8-0-0)

- Specify source of material
- Specify lab coat cleaning and/or disposal
- Spell out acronyms

IV. New Business:

A. New and renewal BUAs for review:

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BSL3

R R2319 Reviewer: cs

Mammalian virology in a veterinary diagnostic laboratory

NIH Guidelines: N/A

Guest:

Approved (8-0-0)

BSL₂

R R2323 (Replacing 0208) Reviewer: az

Immune Response to Pathogens in Livestock

NIH Guidelines: N/A

Tabled (8-0-0)

o Add risks of the model in the "Risk Assessment" section

Add details of how pathogen is being grown

o Add details regarding disposal and disinfection of infectious agents

R **R2338** (Replacing 0578-02)

Reviewer: vx

Reviewer: az

Human cell line models of neurological disorders and malignant hyperthermia NIH Guidelines: IIIE, IIID3b, IIIF8, App C-II

Approved (8-0-0)

List IACUC protocol numbers for mouse cells

R **R2343** (Replacing 0785-04) Miller, Lisa

Host-microbe cross-talk and pregnancy outcomes

NIH Guidelines: N/A Approved (8-0-0)

No organisms subject to the Cal/OSHA ATD Standard

R **R2344** (Replacing 0785-06) Miller, Lisa Reviewer: az

Mucosal immunity to respiratory pathogens

NIH Guidelines: N/A Approved (8-0-0)

R **R2345** (Replacing 1055) Ho, Hsin-yi (Henry) Reviewer: vx

Investigation of Wnt-induced cytoskeletal dynamics in development and

disease

NIH Guidelines: IIID3b, IIIE, IIIF8, App C-II)

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Approved (8-0-0)

N R2371 Reviewer: az

Mouse Model for Post-Antibiotic Persistence of Attenuated Borrelia

burgdorferi

NIH Guidelines: N/A Approved (8-0-0)

o Add what PPE will be used if a biosafety cabinet is not available?

- o Risk Assessment section- Change wording to "received from..."
- Risk Assessment section- Reference SafetyNet #127 for accidental release in the car
- o What is being done with used surgical instruments?
- o Add sentence referring staff to Occupational Health for tick bite

N R2398 Hariharan, Nirmala Reviewer: jb

Molecular Mechanisms of Cardiac Progenitor Cell Maintenance

NIH Guidelines: IIID1b, IIIE

Approved (8-0-0)

- Clarify what will be done if there were an occupational exposure.
- Modify wording of risk assessment text to clarify.

BBP only

R R2333 Ristenpart, William Reviewer: jk

Microfluidic investigation of human red blood cells

NIH Guidelines: N/A

Conditionally approval by BSO

R R2334 (Replacing 1054B) Heinrich, Volkmar Reviewer: az

Biophysical properties of blood cells.

NIH Guidelines: N/A

Conditionally approval by BSO

 Attach BBP Exposure Control and Medical Waste Management Plans

BSL₁

R R2285 (Replacing 0927) Leslie, Charles Reviewer: jk

Walnut Improvement Program

NIH Guidelines: IIIE

Conditionally Approved (8-0-0)

- Biological materials need to be added to Risk assessment section
- Building name not listed on BUA
- BUA Locations Add locations referenced in the "Risk Assessment" section

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- How do they know that moving the walnuts makes them nonviable?
- Take out part about monitoring field after study termination in BUA

R **R2332** (Replacing 0070)

Fisher, Andrew

Reviewer: jk

Structural studies of proteins

NIH Guidelines: IIIE Approved (8-0-0)

- Under experimental procedures section add "%" symbol
- Edit text about use of autoclave or use of bleach
- Change "no harm to humans" to read "no known cause to humans..."
- PI needs training

R **R2335** (Replacing 0920)

Reviewer: vx

Comparative proteomics of animal circadian clock NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II

Approved (8-0-0)

o What specimens are being sent out?

o What are the other insect cells to be used?

R **R2337** (Replacing 0598)

Reviewer: jk

<u>Characterization of proteins from Moraxella bovis, Moraxella bovoculi and Moraxella ovis</u>

NIH Guidelines: IIIE Approved (8-0-0)

- o Are swabs being done on cattle in CA or out of state?
- o What is the evidence that it won't infect humans?
- Clarify whether USDA or CDFA permits are needed
- Additional controls and permits may be needed if moving in or out of state

N R2342 (Replacing 0235-04) McDonald, Karen Reviewer: jk Plant virus (Cucumber mosaic virus (CMV) ,Tobacco mosaic virus (TMV) and Potato virus X (PVX)) replication and expression of heterologous proteins in transgenic/non-transgenic plants and plant cell lines

NIH Guidelines: IIIE2a

Approved (8-0-0)

- Bloodborne pathogen training only needed when working with blood
- PI doesn't have rDNA training
- In risk assessment section, move up to experimental procedures
- Mark as a new BUA and not a renewal

R R2349 (Replacing 0021-02) Yoder, John Reviewer: jk

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Functional studies of parasitic plant genes

NIH Guidelines: IIIE2a

Conditionally Approved (8-0-0)

- Need clarification as to where plants are being stored
- o Clarify whether there is a need for USDA/CDFA permits
- Plant genetic modification box in BUA needs to be checked "yes"
- Move project summary to "experimental procedures" section
- Add a transgenic plant analysis description under "experimental procedures" section
- Confirm required training been completed

B. Amendments:

BIO amendment:

BSL₂

R1797 Morrissey, Brian Reviewer: az

Interstitial lung disease (ILD) clinical registry and biorepository.

NIH Guidelines: N/A Add: Human lung tissue

Approved (8-0-0)

o PPE training verified and added to BUA

R1821 Reviewer: vx

MicroRNAs in Retinal Development and Repair

NIH Guidelines: IIID4a

Add: 1) AAV, and 2) use of mouse cells transduced by either AAV or HIV-1

lentiviral particles in mice

Approved (8-0-0)

- List the room for housing animals
- Provide the IACUC protocol number
- Take out room information in descriptions

R2358 Chomel, Bruno Reviewer: jb

Dairy Food Safety Lab NIH Guidelines: N/A

Transfer of James Cullor BUA #R1625, no scientific changes

Approved (8-0-0)

 Same expiration dates as those of James Cullor, no extensions, only transfers

R2360 Chomel, Bruno Reviewer: jb

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Isolation and Identification of Bacteriophages

NIH Guidelines: N/A

Transfer of James Cullor BUA #R2309, no scientific changes

Approved (8-0-0)

 Same expiration dates as those of James Cullor, no extensions, only transfers

BSL1

R1544 Gepts, Paul Reviewer: az Study the evolution, domestication, and biodiversity of crops at the molecular and whole-plant levels.

NIH Guidelines: IIIE1

Add: DNA Vectors from Bean Pod Mottle Virus, Bean Common Mosaic Virus, *Pseudocercospora griseola*

Approved (8-0-0)

- o Biological materials need to be added to risk assessment section
- BUA Locations- Add field location referenced in the "Risk Assessment" section

C. Storage only:

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R2109 Reviewer: az

Persistence and susceptibility of poultry viruses to chemicals and

<u>characterization of the immune responses and pathology generated in</u> chickens

NIH Guidelines: N/A (animal pathogen)

Add: Avian Reovirus

Conditional Approval Date: 07/07/2016

R **R2327** Reviewer: jb

Epizootic Bovine Abortion Agent (aoEBA): Organism characterization and

development/use of a mouse model

NIH Guidelines: IIIE

Conditional Approval Date: 6/27/2016

E. Terminated BUAs:

0580B Clifford, Andrew Reviewer: nld Elucidating the dynamic and kinetic behavior of nutrient metabolism in humans Exp date: 7/15/2016

0929B Hawkes, Wayne Reviewer: pb

Functions of selenoproteins in human cells

Exp date: 7/5/2016

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R1625 Cullor, James Reviewer: th

Dairy Food Safety Lab Exp date: 11/17/2017

R2291 Reviewer: az

Understanding the molecular basis for reprogramming gene expression in

preimplantation mouse embryo

Exp date: 5/31/2019

R2360 Cullor, James Reviewer: jb

<u>Isolation and Identification of Bacteriophages</u>

Exp date: 5/31/2019

F. Extension of BUAs:

0312 Natzle, Jeanette Reviewer: nld

Experimental manipulation of ecdysteroid levels during insect development

Exp date: 7/15/2016

Retired(ing) PI would like to keep old BUA active for 6 more months so she can address any questions that may arise from review of recent journal submission, there is no novel research ongoing, but she would like the option to ensure the manuscript gets accepted.

Approved (8-0-0)

 By December, PI needs to let IBC know if materials will be transferred or what will happen

V. Discussion Items:

- Philip Barruel conveyed clarification from the NIH regarding IBC review of protocols involving rDNA (i.e. if all amendments need to reviewed by the IBC or if NIH is okay with IBC administrative approval)
 - NIH feedback: as long as the risk profile has not changed (i.e. no new recombinant organisms or amendment doesn't involve a different type of gene of interest, or administration of recombinant cells into animals or plants), then it does not need to go to the IBC
 - If animals are going to be housed in a different location, e-mail Nicole
 Corley so that she can verify the appropriateness of the new location
- Jim Baugh completed and designed the new BBP training module that is now in LMS
- Recruitment of new IBC committee members: Plant Sciences and another public member – existing IBC members were encouraged to give names of potential IBC members to the Biosafety Officers

VI. Information Items: None

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VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 5:09 pm.

July 25, 2016 FINAL Page **9** of **9**

Institutional Biosafety Committee, UC Davis Office of Environmental Health and Safety

Minutes

December 16, 2016 (10:00 AM - 12:10 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, EH&S

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Angela Gelli Voting Member, IBC Chair, MED: Pharmacology Voting Member, Campus Veterinary Services Laurel Gershwin Voting Member, Veterinary Medicine: Pathology,

Microbiology & Immunology

Betty Ma

Voting Member, Alternate, Campus Veterinary Services

Elizabeth Maga Voting Member, Animal Science Lyle Najita Voting Member, Public Member

Ioannis Stergiopoulos Voting Member, Alternate, Plant Pathology

Renee Tsolis Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, EH&S

Chelsea Schiano High Containment Facility Officer, EH&S

Vivian Xian Associate Biosafety Officer, EH&S Adrienne Zweifel Associate Biosafety Officer, EH&S

Excused:

Laurie Brignolo Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen Voting Member, MED: Biochemistry & Molecular Medicine
Dennis Hartigan-O'Connor Voting Member, Medical Microbiology & Immunology

Fred Jacobsen Voting Member, Public Member

Johan Leveau Voting Member, Alternate, Plant Pathology
Curtis Plotkin Non-Voting *Ex-Officio* Member, Director, EH&S

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Guests:

Gregory Hodge CNPRC

Angelina Madrigal-Alonso Executive Assistant, Safety Services

Call to Order: A *quorum* was established with 8 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 10:00 am by Angie Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

November 28, 2016

Approved (6-0-2, Maga and Corley abstained)

II. Announcements: None

11AM: Greg Hodge from Primate Center will arrive to answer questions about SOP's, etc.

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL₂

R R1507 Kaplan, Kenneth Reviewer: az

The pathways that contribute to the initiation and evolution of cancer cells.

NIH Guidelines: IIID1a, IIIE1a

Approved (8-0-0)

o PI training needs to be completed

R R1522 Chomel, Bruno Reviewer: jb

Investigation of *Bartonella* and other zoonotic infections

NIH Guidelines: IIIF1

Approved (9-0-0) Gershwin arrived

- Clarify that they get samples that have tested negative for rabies
- Clarify why a biosafety cabinet will not be used if samples are contaminated
- Recommend to discard contaminated samples instead of opening them
- Open all samples in biosafety cabinet
- BUA should have discussion of rabies and medical attention in case of exposure

N R2266 Al Rwahnih, Maher Reviewer: jb

Molecular characterization, biological study, and detection of viruses in

horticultural crops

NIH Guidelines: IIIF-8 App. C-II Conditionally approved (9-0-0)

- Define how materials are received from outside resources, create an SOP about how they receive materials from outside sources
- Under "experimental procedures" clarify they have taken precautionary measures for samples received outside of California
- Discuss whether or not plants are destroyed before flowering, if not, describe containment of pollen.
- In "risk assessment" section separate discussion of GM plants from plant pathogens.

- Describe greenhouse security measures in place.
- Define autoclave conditions for treatment of rDNA materials.

N R2295 Reviewer: az

The effect of environmental tobacco smoke exposure on pulmonary immune development and infection

NIH Guidelines: N/A Approved (9-0-0)

Need to update room location in BUA

R **R2419** (Replacing 1065) Pandey, Pramod Reviewer: jb

Research in pathogen inactivation on food waste

NIH Guidelines: N/A Approved (9-0-0)

o Training missing for one person

- Add justification for why they are using pathogenic strains
- Clarify how they will decontaminate mixer
- Clarify if stirring or mixing food waste
- 70% ethanol is not an adequate disinfectant to neutralize Clostridium please clarify what hospital grade disinfectant they will use

R **R2420** (Replacing 0956)

Bladder tissue regeneration NIH Guidelines: IIID1, IIID3

Approved (9-0-0)

Indicate source of pig tissues

R **R2422** (Replacing 0818)

Reviewer: jb

Congenital myasthenic syndromes: Pathogenic mechanisms

NIH Guidelines: IIID3b, IIID4a, IIIE, IIIF-8 App. C-II

Approved (8-0-0) Belcourt stepped out

R R2424 (Replacing 0721) Rice, Robert

Role of signaling pathways in keratinocyte differentiation and in response to toxic agents

toxic agents

NIH Guidelines: IIID3b, IIIE, IIIF8, App C-II

Approved (9-0-0) Belcourt came back & and guest arrived

- o For liquid waste, final concentration of bleach should be 10%
- o Remove words "subsequent ingestion"
- o Check "yes" to the question for shipping

R **R2427** (Replacing 0224) Gorin, Fredric Reviewer: vx

Novel amiloride congeners selectively kill highly metastatic human cancers

NIH Guidelines: IIIE, IIIF8, App C-II

Approved (9-0-0)

Reviewer: az

Reviewer: vx

- PI needs to complete training
- R **R2430** (Replacing 0022-03B) Denison, Michael Reviewer: vx Molecular mechanisms of action of Endocrine Disrupting Chemicals (EDCs)
 NIH Guidelines: IIIE, IIIF8, App C-II
 Approved (9-0-0)
 - For liquid waste, final concentration of bleach should be 10%
 - o Delete the word "baculovirus"

BL2-P

R R2431 (Replacing 0933) Sudarshana, M Reviewer: vx Cloning and expression of genes from plants, phytoplasmas and viruses infecting almond, grapevines, stonefruits, and walnuts
NIH Guidelines: IIIE2a, IIIE2b (3), IIIF8, App C-II
Approved (9-0-0)

- Indicate that access to greenhouse is restricted
 - Decontaminated liquid waste (not glassware) will be disposed down sink drain
 - One person needs to complete training

BBP only

R **R2425** (Replacing 0644) Gregg, Jeffrey Reviewer: az Genomic analysis of nucleic acids isolated from human blood for the study of neurodevelopmental disorders and other human disease.

NIH Guidelines: N/A Approved (9-0-0)

BSL1

R R1469 Reviewer: vx

The use of milk from transgenic animals to prevent and treat diarrhea NIH Guidelines: IIID4a, IIIF, IIIF8, App C-II

Approved (8-0-1) Maga stepped out during voting and abstained

Add surgical mask as part of PPE

R **R2412** (Replacing 0948) Brady, Siobhan Reviewer: vx

Root Transcriptional Networks

NIH Guidelines: IIIE2a, IIIE, IIIF8, App C-II, C-III

Approved (9-0-0)

- o Describe how transgenic tomato seeds will be stored in the lab
- o Indicate what will be shipped out of UC Davis

B. Amendments:

BSL2	
R2318	Reviewer: jb

Therapeutic and prophylactic interventions against agents of chronic infection including HIV and HCV/ Zika virus preparation
NIH Guidelines: N/A

Add: Zika virus

Approved (8-0-0) Belcourt left meeting

o Clarify that "samples will be analyzed as described below"

R2328 Reviewer: az

Determination of immunoreactivity to fetal brain proteins

NIH Guidelines: N/A Add: use of NHP tissue

Approved (8-0-0)

R2370 Angelastro, James Reviewer: jb

<u>Destruction of brain tumors through loss-of-function of ATF5</u>

NIH Guidelines: IIID3b Add: Adenovirus vector Approved (8-0-0)

Add risk assessment description of amphotropic MMLV modification.

C. Storage only:

R **R2470** (Replacing 0528-01)

Reviewer: az

Storage only: SIV (tissue, blood, CSF) NIH Guidelines: N/A

NIH Guidelines: N/A Approved (8-0-0)

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO: None

E. Terminated BUAs:

O522 Reviewer: nld
Storage only: Vaccinia virus, MVA, measle vaccines, measles vector and virus
seed stocks, Herpes virus papio, Raji cells, *H. papio* transformed monkey B cells
Exp date: 12/16/2016

O945

Genetic characterization of non-human primates and human populations

Reviewer: nld

Exp date: 12/31/2016

R1593 Reviewer: az

Gene therapy in spinal cord injury and Alzheimer's disease

Exp date: 4/30/2017

F. Extension of old BUAs: None

V. Discussion Items:

- Primate Center Zika Virus-infected primate SOP changes Baugh Guest: Greg Hodge
 - Conditionally Approved (9-0-0) Committee wants to see a revised document
 - Section 4 shouldn't be just focused on Zika Virus make more general references to transfer box with screen
 - o Add a 4.1 bullet point to say vector control approved by Biosafety Office
 - o Add appendix of list of viruses covered by SOP
 - Clarify N95 respirator use parameters
 - Greg will make the edits and email the revised SOP to the IBC for review and final approval
- VI. Information Items: None
- VII. IBC Training: None
- VIII. BSL3 Laboratory Information: None
- IX. Notifications:
 - 1. CDPH Medical Waste Inspection: CNPRC, CCM, and 2nd Street MBP only (January 4, 2017).
- X. Subcommittee Topics: None

Adjournment: 12:10 pm

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

November 28, 2016 (3:02 PM - 5:20 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, EH&S

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Angela Gelli Voting Member, IBC Chair, MED: Pharmacology Laurel Gershwin Voting Member, Veterinary Medicine: Pathology,

Microbiology & Immunology

Dennis Hartigan-O'Connor Voting Member, Medical Microbiology & Immunology

Johan Leveau Voting Member, Alternate, Plant Pathology

Betty Ma Voting Member, Alternate, Campus Veterinary Services

Lyle Najita Voting Member, Public Member

Renee Tsolis Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology

IBC support staff in attendance:

James Baugh Associate Biosafety Officer, EH&S
Chelsea Schiano High Containment Facility Officer, EH&S
Vivian Xian Associate Biosafety Officer, EH&S

Excused:

Laurie Brignolo Voting Member, Alternate, Campus Veterinary Services Hongwu Chen Voting Member, MED: Biochemistry & Molecular Medicine

Nicole Corley Voting Member, Campus Veterinary Services

Fred Jacobsen Voting Member, Public Member Elizabeth Maga Voting Member, Animal Science

Curtis Plotkin Non-Voting Ex-Officio Member, Director, EH&S

Neil Speth Non-Voting *Ex-Officio* Member, UCDMC Employee Health Services

Ioannis Stergiopoulos Voting Member, Alternate, Plant Pathology

Adrienne Zweifel Associate Biosafety Officer, EH&S

Guests:

Lou Adamson CCM Resmi Ravindran CCM

Angelina Madrigal-Alonso Executive Assistant, Safety Services

Call to Order: A *quorum* was established with 9 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:02 pm by Angie Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

October 24, 2016

Approved (7-0-1, Gelli abstained)

II. Announcements:

 New IBC members: Dr. Laurel Gershwin, Dr. Karen McDonald Approved (8-0-0) Tsolis arrived after voting

III. Old Business:

BUAs conditionally approved at the October 24, 2016 IBC meeting:

R R2395 (Replacing 0347-02) Luciw, Paul Reviewer: cs

Titration of *Mycobacterium tuberculosis* by bacterial culture

NIH Guidelines: NA

Approved (9-0-0) Adamson & Ravindran guests on behalf of Luciw lab

- Lock was put on freezer per committee's request
- o MTB is usually diluted before it is plated
- Make sure that volumes are clearly stated in SOP & uploaded to BUA

IV. New Business:

A. New and renewal BUAs for review:

HGT

R C2128 (Annual Report, Amendment) Abedi, Mehrdad Reviewer: pb : A Phase 1/2 Multi-Center Study Evaluating the Safety and

Efficacy of in Adult Subjects with Relapsed/Refractory B-precursor

Acute Lymphoblastic Leukemia (r/r ALL)

NIH Guidelines: IIIC

Approved (8-0-1, Barruel abstained)

Select Agent

R R2141 (Replacing 0508) Ronald, Pamela Reviewer: cs
Rice as a model species to explore plant stress responses and cell wall
modification

NIH Guidelines: IIID5a, IIIE2a, IIIE2b3, IIIE, IIIF-8 App C-II, C-III Approved (9-0-0)

- Need to check "yes" box in regards to organism as a plant pathogen
- Missing description of what is being done with plants
- Clarify whether or not organism is an exotic agent
- Training section needs to be updated

BSL₂

R R1505 Bauer, Gerhard Reviewer: pb

Quality control of the USP 14 Day Sterility Test using test organisms

NIH Guidelines: N/A

Approved (9-0-0)

Add "broken glass" to hazardous procedures section

R R1509 Reviewer: az

Molecular mechanisms of enteric pathogenesis

NIH Guidelines: IIID1, IIID2, IIID4, IIIE1, IIIF8, App C-II

Approved (8-0-1) Tsolis abstained

 Under "Experimental Procedures" add surgical mask or face shield in addition to "appropriate eye wear"

R **R1513** Fitzgerald, Paul Reviewer: az

Intermediate Filament Biology

NIH Guidelines: IIIE1, IIIF8, App C-II, App C-VIII

Approved (9-0-0)

Clarify splash risk in the "Risk Assessment" section

R **R2169** (Replacing 0919)

Reviewer: jb

Human progenitor cells for accelerating bone repair, neovascularization, and

wound healing

NIH Guidelines: IIID4a

Approved (9-0-0)

R **R2370** (Replacing 0740)

Reviewer: jb

<u>Destruction of brain tumors through loss-of-function of ATF5</u> NIH Guidelines: IIID3b, IIID1b, III4a, IIIE, IIIF-8 App C-II

Approved (9-0-0)

- o Remove use of UV light as a "sterilization treatment"
- Clarify liquid disinfectant used in BSC
- Clarify mouse work in project summary
- Training updates needed

R **R2400** (Replacing 0488)

Kowalczykowski, Stephen Reviewer: vx

Expression, Purification, and Characterization of DNA Repair Proteins

NIH Guidelines: IIID3e, IIIE, IIIF-8, App C-II, C-III

Approved (9-0-0)

Update training for one individual

R **R2406** (Replacing 0829-02)

Reviewer: jb

Labeling mesenchymal stem cells (MSCs) for tracking in vivo and in vitro

NIH Guidelines: IIID1b, III4a, IIIE

Approved (9-0-0)

- For animal PPE, need to add something to cover arms, perhaps a lab coat or sleeves
- Training updates needed

R **R2407** (Replacing 0833)

Reviewer: vx

Marine and terrestrial mammal viral disease surveillance and characterization NIH Guidelines: IIIE, IIIF8, App C-II Approved (9-0-0)

 In the Risk Assessment section, add a sentence to state that they might be culturing unknown organisms when culture is done with the received specimens.

R R2417 (Replacing 1063)

Investigation of the retinoid cycle of vision in the mammalian retina

NIH Guidelines: IIID3b, III4a, IIIE, IIIF-8 App C-II

Approved (9-0-0)

- Animal housing/procedure rooms need to be added
- Training updates needed

N **R2432**Applied Research Designed to Better Define the Pathogenesis and to Assist

in Mitigation of White-nose Syndrome in Bats.

NIH Guidelines: IIIE, IIIF8, App C-II

Approved (9-0-0)

 Reword the sentence about rabies immunization to state that employees will be offered rabies vaccine.

R **R2458** (Replacing 0730)

Reviewer: jb

Reproduction, embryo development and growth of the fish

NIH Guidelines: IIID4a, IIIE, IIIF-8 App C-II

Approved (9-0-0)

- o Attach old BUA and amendments to BUA application
- Mouse cell line with no rDNA not needed in BUA (B16)
- Specify source of primary animal cells with IACUC #s

BL2-P

R R2399 (Replacing 0274-02) Michelmore, Richard Reviewer: vx Comparative and functional genomics of disease resistance in plants
NIH Guidelines: IIIE2a, IIIE2b(2), (3), (4), IIIF-8, App C-II, C-III
Approved (9-0-0)

- o Change the unit for bacterium to CFU
- Uncheck "Yes" but check "No" for bacteria to the question to be used to shuttle DNA
- "No" should be checked for Pseudomonas fluorescens to the question to be pathogenic to plants
- Include a BSC or respirators as measures to prevent exposure to airborne fungal spores.

BBP only

R **R1506** Bauer, Gerhard Reviewer: pb

Clinical grade laboratory tests on human blood, bone marrow, other human

body fluids and human cell cultures

NIH Guidelines: N/A

Approved by Nicole Corley (PB couldn't approve because he was pre-

reviewer)

R **R2410** (Replacing 0869-02B) Dickinson, Peter Reviewer: az

Use of human cell lines for cancer research

NIH Guidelines: N/A
Approved by BSO

R **R2429** (Replacing 0947-Lorenzo) Bowlus, Christopher Reviewer: jb Gl/Hepatology Clinical Trials, including Viral Hepatitis

NIH Guidelines: N/A

Approved (8-0-0) Dr. Belcourt stepped out

- Blood is from Hepatitis B or C positive study participants must be approved by entire IBC
- BBP training needs to be updated/taken for several personnel on the roster

N **R2456** Wittenburg, Luke Reviewer: vx

Effects of inhibiting the interaction between CBFb and RUNX2 in canine and

human osteosarcoma cell lines

NIH Guidelines: N/A Approved by BSO

B. Amendments:

BIO amendment:

BSL2

R1651 LaSalle, Janine Reviewer: pb

Noncoding RNAs at the heart of the Prader-Willi locus

NIH Guidelines: IIID3a

Add: Lentiviral vectors, CRISPR/Cas9 system, and established human cell lines

Approved (8-0-1) Barruel abstained

o Update training for personnel

R1820 Melotto, Maeli Reviewer: jb

Molecular Biology of Human Bacterial Pathogen and Plant Interactions

NIH Guidelines: IIID1a, IIIE2a

Add: Listeria monocytogenes, Escherichia coli (laboratory strain)

Approved (9-0-0)

- Clarify whether plant infections occur with two pathogens
- o Clarify how deletion mutants are generated
- Clarify phenotype predictions for deletion mutants
- Training updates needed

R1961 Lossin, Christoph Reviewer: az

Ion channel pharmacology

NIH Guidelines: N/A

Add: Primary human material

Approved (9-0-0)

 NIH Guidelines- IIC shouldn't be checked, but IIID should be for the PSC's; indicate NIH Guidelines Appendix CII, not CI

R1983 Smith, Woutrina Reviewer: vx

Environmental pathogen pollution research involving zoonotic protozoal and bacterial fecal organisms

NIH Guidelines: N/A

Add: Mycoplasma bovis, Streptococcus spp., Staphylococcus aureus, and new procedures

Approved (9-0-0)

Provide sources for Streptococcus spp. and Mycoplasma bovis

R2351 Murphy, William Reviewer: az

Continued NK therapies against xenograft tumors and the role of CSCs

NIH Guidelines: IIID1a

Add: Genetically modified human cell lines

Approved (9-0-0)

R2379 Cheng, R. Holland Reviewer: vx

Structural studies on virus replication cycles NIH Guidelines: IIID3e, IIIE, IIIF8, App C-II

Add: new procedures to produce, purify and concentrate RG2 viruses Approved (9-0-0)

- Reword the sentence about Zika virus transmission to state that "...and not spread from person to person through casual contact..."
- Add a sentence to indicate that sexually active men will be given additional training about the risks associated with the work with Zika virus.

R2452 Reviewer: jb

New methods for the study of oogenesis

NIH Guidelines: IIID1a, IIID4b

Add: Transplantation GFP-transfected cells to the ovaries of healthy cows Conditionally Approved (9-0-0)

- o Clarify how cows will be separated from rest of herd
- Clarify how rDNA cows and dairy products are to stay out of food chain
- Approval dependent on animal housing/procedure spaces that ensure containment
- Training updates needed

C. Storage only: None

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R **R2349** (Replacing 0021-02) Yoder, John Reviewer: jb

Functional studies of parasitic plant genes

NIH Guidelines: IIIE2a

Conditional Approval Date: 7/25/2016

E. Terminated BUAs:

0459-03 Reviewer: pb

Presentation of antigens to chickens using DT40 cells

Exp date: 01/23/2015

0459-05 Reviewer: mmm

Social hierarchy influences immunomodulatory nutrient consumption and rate of

transmission of Salmonella enteritidis

Exp date: 10/21/2016

0895 Wilson, Dennis Reviewer: nld

Cellular responses to environmental stress

Exp date: 08/2015

0939-03B Hertz-Picciotto, Irva Reviewer: mmm

Developmental issues and environmental exposures associated with autism

and other neurodevelopmental disorders (MARBLES)

Exp date: 11/30/2016

0953B Burri, Betty Reviewer: pb

Human carotenoid metabolism

Exp date: 11/28/2016

1064 Reviewer: nld

<u>Endometrial tissue concentrations of ceftiofur after intrauterine infusion in</u> healthy mares and those with experimentally induced endometritis

Exp date: 11/30/2016

R1646 Hildreth, James Reviewer: mmm

Viral co-infection and HIV pathogenesis

Exp date: 7/31/2017

C1724 Lara, Primo Reviewer: pb

A Phase 2, Multicenter, Randomized Study to Evaluate the Safety and Efficacy of

in Combination with Low Dose (Metronomic)

Cyclophosphamide Followed by Sequential Chemotherapy Versus

Chemotherapy Alone in Patients with Non-Small Cell Lung Adenocarcinoma after

Failure of Two Previous Treatment Regimens for Advanced Disease (

Exp date: 10/27/2016

F. Extension of old BUAs:

0948 Brady, Siobhan Reviewer: mmm

Root Transcriptional Networks

Exp date: 11/18/2016 Approved (9-0-0)

V. Discussion Items:

- 1. IBC Policy Needed for Locking Freezers, Inactivation Validation, PPE and Training Expectations for shared-use labs Barruel
- 2. IBC member BUA assignments Barruel
 - o 2 per BUA wait until we have more IBC members

VI. Information Items:

- 1. 2017 IBC meeting schedule Xian
 - IBC meetings for 2017 were scheduled for the forth Monday each month from January through November. The date for December meeting will be decided in October 2017 since the 4th Monday is Christmas day.
- 2. Sacramento campus MWMP Barruel
 - We will not ask for MWMPs to be attached to BUAs.
- 3. **IBC Training:** None
- 4. **BSL3 Laboratory Information:** None
- 5. Notifications: None
- 6. Subcommittee Topics: None

Adjournment: 5:20 pm

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

September 26, 2016 (3:02 PM - 5:10 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel Voting Member, Biosafety Officer, EH&S

Roger Belcourt Voting Ex-Officio Member, Director, Occupational Health Services

Hongwu Chen Voting Member, MED: Biochemistry & Molecular Medicine

Nicole Corley Voting Member, Campus Veterinary Services
Angela Gelli Voting Member, IBC Chair, MED: Pharmacology

Fred Jacobsen Voting Member, Public Member

Betty Ma Voting Member, Alternate, Campus Veterinary Services

Lyle Najita Voting Member, Public Member

Johan Leveau Voting Member, Alternate, Plant Pathology

Renee Tsolis Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology

IBC support staff in attendance:

Chelsea Schiano High Containment Facility Officer, EH&S

Vivian Xian Associate Biosafety Officer, EH&S Adrienne Zweifel Associate Biosafety Officer, EH&S

Excused:

James Baugh Associate Biosafety Officer, EH&S

Laurie Brignolo Voting Member, Alternate, Campus Veterinary Services Thomas Ferguson Non-Voting Ex-Officio Member, Medical Director, SHCS

Elizabeth Maga Voting Member, Animal Science

Curtis Plotkin Non-Voting Ex-Officio Member, Director, EH&S

Neil Speth Non-Voting Ex-Officio Member, UCDMC Employee Health Services

Ioannis Stergiopoulos Voting Member, Alternate, Plant Pathology

Guests:



CNPRC

Call to Order: A *quorum* was established with 10 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:02 pm by Angela Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

August 22, 2016

Approved (8-0-2, Tsolis and Leveau abstained)

II. Announcements:

None

III. Old Business:

None

IV. New Business:

A. New and renewal BUAs for review:

HGT R C2195 (Annual Report) Ducore, Jonathan Reviewer: pb A phase 1/2 clinical trial of gene therapy in adults with hemophilia B NIH Guidelines: IIIC Approved (9-0-1, Barruel abstained) Clarify if abscess a sterile abscess or an infection N C2375 Giermasz, Adam Reviewer: pb A Phase I/II Open-Label Safety and Dose-Finding Study of in Adults With Moderate/Severe to Severe Hemophilia B (NIH Guidelines: IIIC, IIID3e Approved (9-0-1, Barruel abstained) BSL₂

R **R1474** (Replacing 0671)

Reviewer: pb The extracellular proteome of Cryptococcus neoformans and its role in the invasion of the central nervous system.

NIH Guidelines: IIID1, IIIF8, App C-II

Approved (8-0-2, Gelli and Barruel abstained)

Gelli stepped out

Reviewer: jb

Mechanical restraint of mice during inoculation

R **R2359** (Replacing 0944B)

Potassium channels as novel pharmacological targets for the treatment of autoimmune diseases, cardiovascular pathologies and neurological disorders NIH Guidelines: IIIE

Approved (10-0-0)

- Add IIIE to NIH guideline section
- Update animal housing locations
- Delete specific locations in Risk Assessment
- BBP training dates are outdated

R **R2363** (Replacing 0939)

Hagerman, Paul

Reviewer: az

Expression of the Fragile X Gene

NIH Guidelines: IIIE1 Approved (10-0-0)

> Add text discussing the prognosis of an individual in the event of an exposure (risk of developing neuro-degenerative issues)

R **R2369** (Replacing 0824)

Reviewer: vx

The role of nuclear positioning in development

NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II, App C-III

Approved (10-0-0)

o Delete the sentence of "If a researcher ... quickly out-compete them."

Ma stepped out

R **R2372** (Replacing 0909-02B) Simon, Scott Reviewer: jb In vitro study of primary cells involved in inflammation in human models of health and disease

NIH Guidelines: IIIE Approved (9-0-0)

- Venipunture from a technician Replace with IRB #
- For PI BBP training is required, change "N" to "Y"

Ma returned

R **R2379** (Replacing 0781)

Cheng, Holland

Reviewer: vx

Structural studies on virus replication cycles

NIH Guidelines: IIID3e, IIIE, IIIF8, App C-II

Approved (10-0-0)

 Risk Assessment – delete or modify the last sentence about pregnant female worker in the 1st paragraph.

Chen left meeting

N R2434 Pollard, Richard Reviewer: jb

<u>Development of 2-hydroxypropyl-beta-cyclodextrin as a broad-spectrum</u> antiviral

NIH Guidelines: NA Approved (9-0-0)

- o BBPECP & ATD are almost 1 year old, update
- PI applied for use of infectious agents at BSL3 therefore IBC approved the BUA at BSL3. Even though agents can be used at BSL2 per BMBL.
- Offer of Hepatitis B vaccine should be noted
- Occupational Health should not be limited to pregnant or immune compromised working with human or NHP materials.

Leveau stepped out

N **R2435** Reviewer: az

Nonhuman Primate Model of Alzheimer's Disease

NIH Guidelines: N/A Approved (8-0-0)

Leveau returned

N R2437 Barker, Christopher Reviewer: cs

Receiving field-collected mosquitoes for arbovirus research

NIH Guidelines: N/A Approved (9-0-0)

- It would be good to state that the incubator door is glass and seethrough, if it is, to emphasize how to watch for possibly escaped mosquitos before opening the incubator
- o Missing BBP training for some personnel
- Will they use human blood? If so, the BUA will need that described in BBP risk assessment

N R2438 Reviewer: jb

Nutritional modulation of host resilience to infection during pre- and postweaning period

NIH Guidelines: N/A

Conditionally Approved (9-0-0)

- Cannot sell animals that were infected
- o No reusable PPE
- Location must be updated
- Training for PPE doffing is required
- Required disposable PPE Hooded Tyvek, N95, booties, disposable face shield

N **R2442** Reviewer: az

Gene therapy in spinal cord injury and Alzheimer's disease

NIH Guidelines: IIID1a, IIID4a

Approved (9-0-0)

BBP only

R R2366 (Replacing 0931B) Van Winkle, Laura Reviewer: vx

Metabolic mechanisms of naphthalene toxicity in lung

NIH Guidelines: N/A Approved by BSO

N R2394 Cruz-Orengo, Lillian Reviewer: vx

In vitro blood-brain barrier model

NIH Guidelines: N/A Approved by BSO

N **R2416** Reviewer: az

Acute effect of triglyceride-rich lipoprotein (TGRL) infusion on cerebral blood

flow (CBF) in mice. NIH Guidelines: N/A Approved by BSO

Belcourt stepped out

BSL₁

R R2367 (Replacing 0827) Kopp, Artyom Reviewer: vx Genetic and developmental mechanisms of evolutionary innovations
NIH Guidelines: IIID4a, IIIE1, IIIF8, App C-II
Approved (8-0-0)

Belcourt returned

R **R2374** (Replacing 0798) Zakharov, Florence Reviewer: pb Molecular and biochemical aspects of aroma production and regulation in fruits

NIH Guidelines: IIIE2a

Approved (8-0-1, Barruel abstained)

N R2433 Reviewer: jb

<u>Development of gene targeting and systems biology approaches for explaining environmental stress phenotypes in fish</u>

NIH Guidelines: IIID4a & IIIF8, App C-II

Approved (9-0-0)

Update BSC Class II Type "A/B3" to Type "A2"

B. Amendments:

BIO amendment:

BSL₂

R1766 Reviewer: jb

E2F/RB pathway in prostate cancer

NIH Guidelines: IIID4a

Add: Implantation of the stable tumor cells harboring the shRNA plasmids into nude mice. NSG mice implanted with patient derived xenografts and purchased from Jackson Laboratories.

Approved (9-0-0)

R1863 Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: N/A

Add: Human blood from de-identified ZIKV-infected donors as blood meal source for mosquitoes, and ZIKV-infected viremic mice as blood meal source for mosquitoes

Approved (9-0-0)

o Offer of Hepatitis B vaccine

R2321 Reviewer: jb

Monitoring the role of neutrophils during skin and lung models of *S. aureus* infection by tissue fluorescence imaging

NIH Guidelines: NA

Add: Mice will be intranasally instilled with a low (5e7 CFU) to high (2x10e8 CFU) inoculum of *S. aureus* strain MRSA-USA300, adding Primate Center locations.

Approved (9-0-0)

BSL₁

R2299 Liu, Gang-Yu Reviewer: az Nano-engineering approach towards regulation of cellular signaling cascades

NIH Guidelines: N/A

Add: Animal cell lines expressing gene of interest

Remove: Several human-derived cell lines

Approved (9-0-0)

o Risk Assessment section - Replace "acknowledge" with "ensure"

Storage only

R2065 Tsolis, Renee Reviewer: cs

Storage only: RG1 and RG2 organisms

NIH Guidelines: N/A

Add: *M. marinum* and *M. smegmatis* for storage only

Approved (8-0-1, Tsolis abstained)

C. Storage only:

R **R2364** (Replacing 0932) Berry, Alison Reviewer: az

STORAGE ONLY: Signaling in root nodule symbioses

NIH Guidelines: N/A Approved (9-0-0)

D. Conditional BUAs reviewed by ABSO, Final Approval by BSO:

R R2333 (Replacing 0922B) Ristenpart, William Reviewer: jk

Microfluidic investigation of human red blood cells

NIH Guidelines: NA

Conditional Approval Date: 7/25/2016

E. Terminated BUAs:

C1491 Dall'Era, MARC Reviewer: mm

(the BOND Protocol): An Integrated Phase II/III, Open Label,

Randomized, Parallel and Controlled Study of the Safety and Efficacy of

Regimen in Patients With Non-Muscle Invasive

Bladder Carcinoma In Situ Disease

and Who Have Failed BCG Therapy and Refused Cystectomy

[Protocol Version: 06.10.13 (Revision 2.2)]

Renewal date: 08/17/2015

R1905 DeRiemer, Kathryn Reviewer: vx

Transmission, virulence and diversification of pathogenic bacteria

Exp date: 4/20/2018

F. Extension of old BUAs:

0715 St. Clair, Dina Reviewer: mm

<u>Investigation of genes controlling quantitatively inherited traits in tomato</u>

Exp date: 9/16/2016

Approved (9-0-0) Extend 1 month

0553 Sparger, Ellen Reviewer: nld

Development of vaccines for treatment of cancer and prevention of infectious

<u>diseases</u>

Exp date: 9/16/2016

Approved (9-0-0) Extend 1 month

V. Discussion Items: None

VI. Information Items:

- 1. Incident Report: Spill outside Biosafety Cabinet Schiano
 - Committee was debriefed on a small (estimated 5 microliters) spill of infectious bloodmeal (containing ZIKV) outside the BSC in the ACL-3 lab. The worker was feeding mosquitoes by the "hanging-drop" method, and was wearing approved PPE. The worker followed SafetyNet 127 procedures for spill clean-up, and reported it to the PI and to the Biosafety Office. Discussion with the Occupational Health Physician determined that this was not an exposure incident and no treatment/follow-up was needed. This lab will revise their mosquito feeding SOPs and eliminate this method, which involves pipetting outside the BSC and is not appropriate for ACL-3 operations.
- 2. Medical Waste Inspection of Sacramento Campus (September 27th) Baugh and Barruel
 - The IBC was informed that the Sacramento County Public Health Medical Waste inspectors will conduct their inspection of the UC Davis

Sacramento Campus Medical Waste Program on September 27th.

- 3. November 1, 2016 FBI's "Biosecurity Workshop" Barruel
 - The IBC was informed that UC Davis will be hosting an all-day workshop that is sponsored by the FBI. It will be held on November 1, 2016 at MU II.
- December 2016 IBC meeting needs to be re-scheduled for Friday, 12/16/16 Barruel
 - A poll will be sent to the IBC members to look for alternate meeting days and times for December 2016.
- 5. Vivarium Hazard Safety Sheets Approval Zweifel
 - Ad hoc committees of subject matter experts are now being formed to review and comment on the VHSSs. After the comment period the sheets are finalized and sent to IACUC.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 5:10 pm