

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

Minutes

January 9, 2017 (11:02 AM – 11:15 AM)

Teleconference

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Nicole McCowan	Voting Member, Campus Veterinary Services (name change: McCowan was previously "Corley")
Lyle Najita	Voting Member, Public Member

IBC support staff in attendance:

Vivian Xian	Associate Biosafety Officer, EH&S
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Excused:

Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Fred Jacobsen	Voting Member, Public Member
Elizabeth Maga	Voting Member, Animal Science
Renee Tsolis	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDCM Employee Health Services
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
James Baugh	Associate Biosafety Officer, EH&S
Chelsea Schiano	High Containment Facility Officer, EH&S
Adrienne Zweifel	Associate Biosafety Officer, EH&S
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S

Guests: None

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.

I. **Review of past IBC meeting minutes:** None

II. **Announcements:** None

III. **Old Business:** None

IV. **New Business:**

A. **New and renewal BUAs for review:** None

B. **Amendments:**

BSL2

R1604

A novel MuSk splicing variant

NIH Guidelines: IID3b

Add: Lentiviral vector carrying GFP gene to be used to transduce primary rat T cells

Approved (7-0-0)

- Provide location for fluorescent microscope
- Add sentence "A spill clean-up kit will be present in the car when transduced cells are transported to the flow cytometry lab."

Reviewer: vx

C. **Storage only:** None

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

E. **Terminated BUAs:** None

F. **Extension of old 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: 11:15 am

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

MINUTES

May 31, 2017 (4:30pm-4:51pm)

Teleconference

Telephone #: 866-740-1260

Access Code: [REDACTED]

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Laurel Gershwin	Voting Member, VM: Pathology, Microbiology, & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services

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:

Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Neil Speth	Voting Member, Public Member
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Fred Jacobsen	Non-Voting <i>Ex-Officio</i> Member, UCDH Employee Health Services
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Lyle Najita	Voting Member, Public Member
Karega Paisley	Voting Member, Alternate, Occupational Health Services

Guests:

[REDACTED]	Faculty Member, VM: Population Health & Reproduction
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I. New Business:

A. BUA Amendment for review:

R2109

Reviewer: az

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

Add: Work involving *Avibacterium paragallinarum*-infected chickens and infected bedding

APPROVED (9-0-0)

- Ensure that the transport containers are appropriate to contain dust and feathers
- Risk Assessment- Explicitly state that staff will have no other contact with uninfected birds on days when infected birds are handled

II. Discussion Items: None

III. Information Items: None

IV. IBC Training: None

V. BSL3 Laboratory Information: None

VI. Notifications: None

VII. Subcommittee Topics: None

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

Minutes

March 27, 2017 (3:00 PM – 4:58 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology,
Fred Jacobsen	Voting Member, Public Member
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services
Lyle Najita	Voting Member, Public Member
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & 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:

Angela Gelli	Voting Member, Chair, Pharmacology
Hongwu Chen	Voting Member, Biochem & Mol Med
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinarian Services
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Karen McDonald	Voting Member, Chemical Engineering
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
James Baugh	Associate Biosafety Officer, EH&S
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services

Guests:

	Student Intern
Katarina Mitchel	Administrative Assistant, Safety Services
Tracy Drazenovich	Research Assoc., VM: Medicine and Epidemiology

Call to Order: A *quorum* was established with 9 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Dr. Renee Tsois, IBC Vice-Chair. Dr. Dennis Hartigan-O'Connor participated by phone.

I. Review of past IBC meeting minutes:

Feb 27, 2017

Approved (8-0-1, McCowan abstained)

II. Announcements: None

Belcourt arrived

III. Old Business:

BUAs conditionally approved at the February 27, 2017 IBC meeting:

N R2475

Reviewer: jb

Experimental infection of black-capped chickadees with poecivirus

NIH Guidelines: N/A

Issue: animal housing

Approved (10-0-0) Dr. Belcourt arrived

- Concern: Containment of birds during transport.
- Verify with UCSF for work with possibly contaminated tissue.
- Bring control animals first. Work with TRACS to isolate birds in J1 for 2 weeks, if still negative move to a more appropriate housing. Then bring infected birds. Control birds are to be tested by PCR test of swabs.

BUAs tabled at the February 27, 2017 IBC meeting:

R2084

Reviewer: jb

Retinoic acid, its receptors, and the liver

NIH Guidelines: N/A

Amendment: use of pathogenic bacteria in mice

Conditional (10-0-0)

- Connect the risk assessment with the risk mitigation strategies.
- Concern: Pathogen may be present in the bedding.

IV. New Business:

A. New and renewal BUAs for review:

BSL2

R R1568

Chen, Tsung-Yu

Reviewer: vx

Molecular physiology of CLC chloride channels

NIH Guidelines: IIIE, IIIF8, App C-II

Approved (10-0-0)

R R1570

Biophotonics imaging and therapy studies

Reviewer: az

NIH Guidelines: IIID1a, IIIE1a

Approved (10-0-0)

- R **R1574** [REDACTED] Reviewer: az
Animal models of immune disorders and antigen-antibody interactions in cultured cells
NIH Guidelines: IIID1a, IIID4a, IIIE1a, IIIF8, App C-II
Approved (10-0-0)
- R **R1580** [REDACTED] Reviewer: vx
Development and Validation of Novel Imaging Agents
NIH Guidelines: IIID3b, IIID3e, IIID4a, IIIE1, IIIF8, App C-II
Approved (10-0-0)
- R **R1584** [REDACTED] Reviewer: jb
CaMKII and IP3-mediated signaling in cardiac myocytes
NIH Guidelines: IIID1a, IIID4a, IIIE1, IIIF8, App C-II
Approved (10-0-0)
- R **R1591** Luciw, Paul Reviewer: cs
TB serology by multiplex microbead immunoassay
NIH Guidelines: N/A
Approved (10-0-0)
- R **R1592** [REDACTED] Reviewer: az
Role of NK cell subsets in MCMV and influenza infection
NIH Guidelines: N/A
Approved (10-0-0)
- N **R2346** Kung, Hsing-Jien Reviewer: vx
Prostate cancer: understanding the effects of receptor mediated androgen independent growth, autophagic cell death and methylation induced gene silencing.
NIH Guidelines: IIID3b, IIID3e, IIIE, IIIF8, App C-II
Approved (10-0-0)
- N **R2445** Keel, Michael Reviewer: vx
Marine mammal morbilliviruses: viral attachment, virus-induced receptor regulation and explant model for deciphering virus-host interaction and susceptibility
NIH Guidelines: N/A
Approved (10-0-0)
o Concern: Where the RG1 virus is coming from? (This information does not affect approval outcome of BUA).
- N **R2460** Winey, Mark Reviewer: az

Uncovering the role of hSfi1, hPoc5, and EFC1/2 in centriole and basal body assembly

NIH Guidelines: IID3b, IIIE1a, IIIF8, App C-II

Approved (10-0-0)

- PI training is incomplete
- Lentiviral vector was entered as a 2nd generation system, but it seems to be 4th generation. Correct BUA.
- Clarify what organism falls under section IIIE1a of the NIH Guidelines. (This question was posed before the IBC meeting; *E. coli* BL21 was added to the BUA afterwards).

N R2491

[REDACTED]

Reviewer: az

Evaluation of novel targets in cancer

NIH Guidelines: IIIE1a, IIIF8, App C-II

Approved (10-0-0)

- Indicate where animals are imaged.
 - The researchers are still waiting approval of proposed facilities. The BUA will be updated once approval for proposed facility has been obtained from Animal Health Monitoring Coordinator.

Dr. Belcourt stepped out.

BBP only

R R1576

Rebhun, Robert

Reviewer: jb

Culturing Human Cell Lines

NIH Guidelines: N/A

Approved by Biosafety Officer

- Make sure old project summary is transferred to renewal summary before BUA is processed for approval.
- Cell lines have no "Hazardous Procedures" listed.
- Verify that the IACUC protocol number is still correct.
- Verify that the attached documents are updated.

N R2461

Gjeltema, Jenessa

Reviewer: jb

Zoological Medicine Research Laboratory - Environmental Plastic Research Program

NIH Guidelines: N/A

Approved by Biosafety Officer

- Ensure that sewage sludge is not handled in a laminar flow hood.
- Add risk assessment for work with NHP tissue.

Dr. Belcourt returned to meeting.

N R2492

Brown, Ian

Reviewer: az

Complications of vascular and microvascular thrombosis in acute trauma

NIH Guidelines: N/A

Approved by Biosafety Officer

- Clarify if researchers will use a BSC.

BSL1

R **R1544** Gepts, Paul Reviewer: az

Study the evolution, domestication, and biodiversity of crops at the molecular and whole-plant levels.

NIH Guidelines: IIIE2a, IIIF5, IIIF8, App C-II

Approved (10-0-0)

- Indicate where inoculations will take place.
 - Fungi work needs to be in locked growth chambers.
- Need CDFA permit for fungi.
- Need USDA and CDFA permits for viral vector.

R **R1586** [REDACTED] Reviewer: vx

Effects of a manipulative parasite on population and community dynamics of the California killifish

NIH Guidelines: N/A

Approved (10-0-0)

N **R2484** Natzle, Jeanette Reviewer: jb

Ecdysteroid effects during insect development

NIH Guidelines: IIID4, IIIF8

Approved (10-0-0)

- Discussion about what they will do after crossing – it will be phenotype characterization.

N **R2486** Yellowley-Genetos, Clare Reviewer: jb

A role for Von Hippel-Lindau tumor supressor in mouse osteocytes.

NIH Guidelines: IIIE1, IIIF8

Approved (10-0-0)

B. Amendments:

BSL2

R2042

[REDACTED]

Reviewer: pb

Skin wound healing

NIH Guidelines: N/A

Add: Locations, *Staph. aureus*, infection of mice, and analysis of infected mouse tissue

Conditional (9-0-1, Barruel abstained)

- o No appropriate risk assessment for work on pigs.
- o Remove pigs from amendment.

R2259

[REDACTED]

Reviewer: vx

Viral replication and oncogenesis

NIH Guidelines: N/A

Add: Mice and rats, and procedure of injecting human tumor cells into these animals

Approved (10-0-0)

R2343

[REDACTED]

Reviewer: az

Mucosal immunity to respiratory pathogens

NIH Guidelines: N/A

Add: Locations; Seeking permission to degrade containment of NHPs once the infection has been cleared.

Approved (10-0-0)

C. Storage only:

R 1566

Ross-Ibarra, Jeffery

Reviewer: jb

STORAGE ONLY: Functional consequences of evolutionary changes in centromere proteins in maize

NIH Guidelines: N/A

Approved (10-0-0)

R R1602

Stewart, Valley

Reviewer: vx

STORAGE ONLY: *Klebsiella pneumoniae*

NIH Guidelines: N/A

Approved (10-0-0)

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

E. Terminated BUAs:

R1525 Borjesson, Dori Reviewer: kr
Bacterial interactions with mammalian cell lines: cellular activation,
regenerative capacity, and immune modulation
Exp date: 02/28/2017

R1572 Van Loan, Marta Reviewer: pb
Mineral and Vitamin Interventions for At-Risk Populations
Exp date: 3/17/2017

V. Discussion Items:

1. Revised CNPRC SOP “Animal Biosafety Level II: Animal Transport and Transfers” (BIO-01) – to include Dengue virus – Barruel
Approved (10-0-0)
 - o For Dengue virus, N95 or PAPR is not required. Edit section 6.1.1.

VI. Information Items:

1. NIH OBA Incident Report (March 4, 2017 incident, bite from a mouse infected with recombinant *Salmonella*). – Barruel
2. USDA APHIS: Notice of Non-Compliance for importation of regulated tomato seeds without an import permit. – Barruel
3. Student Health employees worked on a kit that was contaminated with *Brucella* strain RB51 (not on the select agent list, so a report to FSAP is not needed). Occupational Health is monitoring exposed employees. Biosafety Officer will work with area supervisor for possible improvements to help prevent future exposures. – Barruel and Belcourt

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 4:58 pm

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

Minutes

January 23, 2017 (3:03 PM – 5:03 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services (name change: McCowan was previously "Corley")
Karen McDonald	Voting Member, Chemical Engineering

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
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Thomas Ferguson	Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS
Lyle Najita	Voting Member, Public Member
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology

Guests:

Angelina Madrigal-Alonso	Executive Assistant, Safety Services
Sal Tafoya	Administrative Assistant, 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 3:03 pm by Elizabeth Maga, Acting IBC Chair. Committee voted for Maga to chair meeting as both Gelli and

Tsolis were not able to attend **Approved (9-0-1, Maga abstained)** Hartigan-O'Connor is participating via phone call.

I. Review of past IBC meeting minutes:

Jan. 9, 2017

Approved (11-0-0)

Dec. 16, 2016

Approved (9-0-1, Jacobsen abstained) Gershwin arrived after vote

II. Announcements: None

Dr. Karen McDonald from Chemical Engineering was introduced as a new IBC member

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL2

R R1499

Chen, Hongwu

Reviewer: az

Role and functional mechanism of coregulators in cancer

NIH Guidelines: IIID1, IIIE1

Approved (10-0-1 Chen stepped out and abstained)

- Add NIH guidelines Section IIIF8 Appendix CII (for *E. coli* K-12 work)
- "Risk Assessment" section states that lentiviral vector will have oncogene (ANCCA) but not adenoviral vector, but biological links has oncogene with the two viral vectors, please clarify

R R1523

[REDACTED]

Reviewer: jb

Analysis of genes involved in mammalian meiosis

NIH Guidelines: IIID3e, IIIE1, IIIF8 App CII, CIII, CVII

Approved (11-0-0)

- Location needs to be deleted from renewal summary
- Check box that lists animals
- Confirm that no transgenic animal is being created

R R1526

[REDACTED]

Reviewer: vx

Modulation of the ErbB receptors

NIH Guidelines: IIID3b, IIID3e, IIID4b, IIID4a, IIIE, IIIF8, App C-II, C-III, C-IIIV

Approved (11-0-0)

R R1528

Zunino, Susan

Reviewer: az

Anti-cancer and anti-inflammatory activities of phytochemicals

NIH Guidelines: IIID1a

Approved (11-0-0)

- Missing description of type of PPE that will be used when working with *Salmonella* samples
- “Risk Assessment” section – Discuss how injections are performed.

R R1530

Reviewer: jb

Analysis of genes involved in mammalian meiosis

NIH Guidelines: IID1b, IID4b, IID4c1, IIE1, IIF8 App CII

Conditionally Approved (11-0-0)

- Confirm/clarify whether lentivirus will be purchased from commercial vendors, lab will be packaging, or both.
- Provide vendor name and clarify if they are making their own anti-virus in lab
- Brain injection taking place in laminar flow hood, but better to do it on bench with appropriate PPE. Clarify engineering and work practice controls during stereotactic injection of virus.
- Provide occupational exposure risk assessment for lentivirus.

R R1532

Reviewer: az

Mosquito-malaria parasite interactions

NIH Guidelines: IID4b, IIE1a, IIF8 App CII

Approved (11-0-0)

N R2464

Reviewer: vx

Characterization of host-virus interactions and importance for virus host range and virulence

NIH Guidelines: IID1a, IID4a, IIE, IIF8, App C-II, App C-III

Conditionally Approved (11-0-0)

- Explain 0.5% sodium hypochlorite is 10% bleach solution for liquid waste decontamination
- Verify if there is a risk for splash when vaccinia virus is handled. If yes, add eye protection and mask as additional PPE
- Provide a risk assessment for myxoma virus to indicate what consequences would be expected if the viruses were to release to the environment
- Remove all texts related to the *in vivo* experiment with the myxoma virus in rabbits so that the rest portions of the BUA can be approved.
- Submit a BUA amendment when a facility that can contain the virus-inoculated rabbits is available.

NHP Material Only

N R2472

Bauman, Melissa

Reviewer: az

Development of novel treatments for neurodevelopmental and neuropsychiatric disease

NIH Guidelines: N/A

Approved by BSO

BL2-P

R R1542 Baumgartner, Kendra Reviewer: vx

Wood-infecting fungal pathogens of grapevine

NIH Guidelines: N/A

Approved (11-0-0)

- Verify quantity and unit of microorganisms used

BSL1

R R1534 Lucas, William Reviewer: az

Functional analysis of cucurbit phloem proteins and RNA as long-distance signaling molecules

NIH Guidelines: III E2a

Approved (11-0-0)

- “Renewal Summary” – add an introduction for virus use to the narrative
- “Biological Materials” – Add cucumber and tomato
- “Risk Assessment” – there are typos and decontamination should be 70% versus 98% ethanol
- “Risk Assessment” – Delete “equipment” will be autoclaved

B. Amendments:

BSL2

R1983 Smith, Woutrina Reviewer: vx

Environmental Pathogen Pollution Research Involving Zoonotic Protozoal and Bacterial Fecal Organisms

NIH Guidelines: N/A

Add: inactivated bacterium *Borrelia miyamotoi* and human blood/serum samples containing live *Borrelia miyamotoi*

Approved (11-0-0)

R2096

Dandekar, Satya Reviewer: cs

HIV and SIV pathogenesis

NIH Guidelines: III E

Add: Human T-lymphotrophic Virus (HTLV) cell culture and patient samples

Approved (11-0-0)

- Any disease associated with HTLV (adult T-cell leukemia)
- Add disease to “Risk Assessment” section

BSL1

R2355 [REDACTED] Reviewer: pb

Intracellular protein transport

NIH Guidelines: III D4a

Add: Transgenic zebrafish

Approved (10-0-1 Barruel abstained)

- Describe transportation of zebrafish from housing to lab

- Is max amount of 50 the number of fish or cells?
- Baculovirus – change to PFU/ml (from CFU/ml)
- Primary animal cells- transfer to “vertebrate” or have PI clarify

R2456 [REDACTED] Reviewer: vx
Investigation the antitumor effects of novel therapeutics in canine and human osteosarcoma
 NIH Guidelines: IIID4a, IIIE
 Add: microRNA introduced into cells or mice
 Approved (11-0-0)

C. Storage only:

R **R1527** Madigan, John Reviewer: vx
Storage only: *Anaplasma phagocytophilum*
 NIH Guidelines: NA
 Approved (11-0-0)

R **R1546** Baumbarth, Nicole Reviewer: jb
Storage only: *Streptococcus pneumoniae* isolates
 NIH Guidelines: NA
 Approved (11-0-0)

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

E. Terminated BUAs: None

F. Extension of old BUAs: None

R1524 Borjesson, Dori Reviewer: jb
Experimental manipulation of ecdysteroid levels during insect development
 Exp date: 1/27/2017
 Approved (11-0-0)

- Extended for 6 months, new expiration date: July 2017

R1535 Goldkorn, Tzipi Reviewer: vx
Molecular and cellular characterization of sphingomyelinase, a regulator of the ceramide pathway and apoptosis in the lung
 Exp date: 1/27/2017
 Approved (11-0-0)

- 1 month extension

0312 (BUA on old paper form) Natzle, Jeanette Reviewer: jb
Experimental manipulation of ecdysteroid levels during insect development
 Exp date: 7/15/2016
 Approved (11-0-0)

- Baugh will extend Dr. Jeanette Natzle’s paper BUA
- 2 month extension

V. Discussion Items: None

VI. Information Items:

- Feb 1st CDPH Medical Waste Inspection (Davis campus only)
- Potential occupational exposure to *Brucella* (select agent)

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

1. UC Irvine/UCOP Team Visited to Test CRF BSL-3P – Schiano
 - 1/9 & 1/10 was the CRF evaluation and completed training.
 - Major work to fix air balance. Facilities on campus will work on the repairs.
2. Annual Re-Verification of BSL3 for Tupper Hall – Schiano
Approved (11-0-0)
 - Recommends that the IBC allow labs [REDACTED] to work for one more year

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 5:03 pm

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

Minutes

May 22, 2017 (3:00 PM – 5:23 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services
Lyle Najita	Voting Member, Public Member
Karega Paisley	Voting Member, Alternate, Occupational Health Services

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:

Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Karen McDonald	Voting Member, Chemical Engineering

Guests:

Katarina Mitchel	Admin Assistant, 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 3:00 pm by Angela Gelli.

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

April 24, 2017

Approved (8-0-1) (Gelli abstained)

II. **Announcements:** None

III. **Old Business:** None

IV. **New Business:**

A. **New and renewal BUAs for review:**

HGT

R **C2267 (Annual Report, Renewal)** Kelly, Karen Reviewer: pb

Phase II Trial of [REDACTED] plus [REDACTED] in Patients with Metastatic Non-Small Cell Lung Cancer (NSCLC) who have Progressed after One Line of Systemic Therapy

NIH Guidelines: IIIC

Approved (9-0-1) Barruel abstained. Leveau joined.

BSL2

N **R1579** [REDACTED] Reviewer: jb

Proliferation and Migration in the Developing Neocortex

NIH Guidelines: IIID3b, IIID3e, IIID4a, IIIE1, IIIF8 (App CI), App CII

Approved (10-0-0)

- o Clarify transmission and broken skin statement in risk assessment.

R **R1607** [REDACTED] Reviewer: vx

Community ecology of pathogens

NIH Guidelines: N/A

Tabled (10-0-0)

- o Add a sentence to indicate that an amendment will be submitted when animal housing locations are decided.
- o Not very clear which microorganism will be used in which animal.
- o Explain how experimentally infected cow will not be placed in any site inhabited by ticks.
- o Provide risk assessments for culturing microorganisms and use of sharps with infectious microorganisms.

R **R1626**

Shacklett, Barbara

Reviewer: jb

Understanding Immune Responses to HIV-1 in Mucosal Tissues

NIH Guidelines: N/A

Approved (10-0-0)

R **R1640**

Genome Engineering in Mammalian Systems

NIH Guidelines: IIID3b, IIID4a, IIIE1, IIIF8, App C-II

Reviewer: jb

Approved (10-0-0)

- Clarify animal housing location.
- Confirm medical waste practices listed are accurate.

R R1650

[REDACTED]

Reviewer: jb

Effects of stress on brain and behavior

NIH Guidelines: IID4b, IIF1

Approved (10-0-0)

- Add description of provisions if mice get out of containment.

R R1651

[REDACTED]

Reviewer: vx

Noncoding RNAs at the heart of the Prader-Willi locus

NIH Guidelines: IID3a, IID3b, IID4a, IIE, IIE3, IIF8, App C-II

Approved (10-0-0)

R R1653

[REDACTED]

Reviewer: vx

Analysis of hormonally responsive promoter sequences

NIH Guidelines: IID3b, IID4a, IID4b, IIE, IIF8, App C-II

Approved (10-0-1). Paisley joined meeting. Paisley abstained.

N R2504

[REDACTED]

Reviewer: jb

Targeting CD4 TFH cells to enhance HIV vaccine efficacy

NIH Guidelines: IID4b, IIE, IIF8, App C-II

- Include centrifugation safety measures.
- Clarification of waste streams.
- Provide HBV vaccine offer.

BBP only

R R1630

Kuhn, Maggie

Reviewer: jb

Skeletal muscle tissue harvest during total for mesenchymal stem cell acquisition.

NIH Guidelines: N/A

BSO Approved after this clarification:

- Provide current IRB number.
- Add training and HBV offer to risk assessment.
- Typo in the title of the project.

BSL1

R R1519

[REDACTED]

Reviewer: jb

Investigation of respiratory and digestive tract pathogen outbreaks in horses

NIH Guidelines: N/A

Approved (11-0-0)

- Change unit of measure for bacteria.
- Clarify accidental exposure response procedures.
- Summarize changes to renewal in project summary.

R **R1597** Van Deynze, Allen Reviewer: az
Crop Improvement and Disease Resistance
NIH Guidelines: III E2a, III E2b, III F8, App C-II

Conditional Approval (11-0-0)

- Correct grammatical and spelling errors throughout the document.
- Confirm the units for viral genomes introduced into host plants
- Confirm the oomycete concentration.

R **R1603** Goodin, David Reviewer: az
Novel substrate oxidation by metalloenzyme engineering
NIH Guidelines: III E1a

Approved (11-0-0)

R **R1643** Kasuga, Takao Reviewer: az
Genomic and transcriptomic analysis of pathogenic Phytophthora species in California

NIH Guidelines: III-E

Approved (10-0-0) Jacobsen left meeting.

N **R2477** Swett, Cassandra Reviewer: jb
Fungal and bacterial pathogens isolated from diseased vegetable crops and agronomic crops (small grains, sunflower, legumes)

NIH Guidelines: N/A

Approved (9-0-0) Paisley left meeting.

- Add description of disease testing in plants to project summary.
- Recommend to generate a list of anticipated infectious agents you may come across in the samples received.

B. Amendments:

BSL2

R1709 [REDACTED] Reviewer: jb
Cryo-Imaging Fluorescent Influenza Virus

NIH Guidelines: III D1a, III D4a

Add: fixed and unfixed mouse tissue imaging and additional strain of influenza virus - Panama-99 (H3N2)

Approved (10-0-0) Jacobsen re-joined meeting.

- Clarify whether seasonal flu vaccine will be offered.
- Clarify why there is human cancer cells mentioned in risk assessment.
- Describe why the addition of reporter gene decreases the fitness of influenza virus during replication.

R1721 [REDACTED] Reviewer: jb
Molecular ecology of avian influenza viruses in wild birds and mammals

NIH Guidelines: NA

Add: new biological materials (influenza viruses), new cell lines (vero, MDCK), tissue explants (pig and dog)

Approved (9-0-0). Hartigan-O'Connor call dropped off.

- Clarify what human influenza strains are being used.
- Make sure that seasonal flu vaccine is being offered.

R1843

Reviewer: jb

BSL2 Housing and Procedures at MBP (new title)

NIH Guidelines: NA

Add: novel approaches to deliver live virus Measles and Rubella vaccine to mice

Approved (9-0-0)

R2012

Reviewer: vx

Electric fields directed cell migration and wound healing and regeneration

NIH Guidelines: IIID3a, IIID4b, IIIF8, App C-11

Add: *B. subtilis*, *S. flexneri*, *Y. enterocolitica*, Pathogenic *E. coli*

Approved (10-0-0) Hartigan-O'Connor re-joined meeting.

- *E. coli* train used is UMN 026, a pathogen associated with UTIs.

R2030

Slupsky, Carolyn

Reviewer: cs

The interaction between host organisms and microbes in health and disease

NIH Guidelines: BBP

Add: NHP tissue/organs

Approved (10-0-0)

- Address risk assessment for NHP tissue.
- Include Herpes B training requirement for all users.

R2281

Reviewer: jb

Congenital and acquired diseases and corrective gene-based therapies

NIH: NA

Add: PPE change for ZIKV/NHP nursery

Approved (9-0-0) Tsois left meeting.

- Clarify if this is in the Quarantine building.
- Provide more details on study and animals tested.

R2320

Reviewer: vx

Cellular and molecular mechanisms of neurotoxicity

NIH Guidelines: IIID3b, IID3a, IIE, IIIF8, App C-II

Add: adeno-associated virus to infect primary neuron cultures as well as human derived exosomes and its use in human cells and in rats

Approved (9-0-0)

- BBP training needs to be updated.

R2442

Reviewer: az

Gene therapy in spinal cord injury and Alzheimer's disease

NIH Guidelines: IID4a
Add: Modified Rabies Virus
Approved (10-0-0) Tsolis re-joined meeting.

C. Storage only:

R R1642 [REDACTED] Reviewer: az
Storage Only: Isolation of bacteria associated with bovine respiratory disease (BRD)
NIH Guidelines: N/A
Approved (10-0-0)

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

E. Terminated BUAs:

R1532 [REDACTED] Reviewer: az
Mosquito-malaria parasite interactions
Exp date: 1/31/2020

R1612 Chuang, Frank Reviewer: ht
Investigating mechanisms of HIV transfer using advanced fluorescence microscopy
Exp date: 5/19/2017

R1673 Van Eenennaam, Alison Reviewer: az
Protein expression of loci from the etiologic agent for epizootic bovine abortion (aoEBA)
Exp date: 7/31/2017

R2062 [REDACTED] Reviewer: az
Co-infection with malaria and non-typhoidal *Salmonella* (NTS)
Exp date: 10/31/2018

R2291 Zivkovic, Angela Reviewer: ht
Interaction of diet and the gut microbiome in preventing chronic inflammatory diseases
Exp date: 5/31/2017

F. Extension of old BUAs: None

V. Discussion Items:

- a. Encouraged IBC members to speak with their colleagues about IBC membership.
- b. Proposed changes to the IBC Internal Operating Procedures. There was a question regarding whether or not the RO for another unit on campus with their own Select Agent program registration (CAHFS) needs to be an *ad*

hoc member of the IBC. BSO will consider this and present information to the IBC.

VI. Information Items:

- a. UC Davis received clarification from NIH Office of Biotechnology Activities (within the Office of Science Policy) regarding CRISPR/Cas9, when only guide RNA and Cas9 proteins are used for gene deletions (no recombinant component). It does not need to be reviewed by the IBC. So, the IBC will not review those types of projects.

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

- a. [REDACTED] BSL-3 Annual Re-Certification (Schiano)
 - i. Short (7 seconds) cascading airflow reversal from lab to exit anteroom to shower
 - ii. Will work with lab to determine any corrective actions they deem necessary. Schiano asserts that this reversal is within acceptable limits based on the risk assessment.
 - iii. Otherwise, the lab performs as required and is in excellent condition.

Approved (10-0-0)

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 5:23 pm

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

Minutes

February 27, 2017 (3:00 PM – 4:33 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Elizabeth Maga	Voting Member, Animal Science
Karen McDonald	Voting Member, Chemical Engineering
Lyle Najita	Voting Member, Public Member
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology


IBC support staff in attendance:

James Baugh	Associate Biosafety 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
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Johan Leveau	Voting Member, Alternate, Plant Pathology
Nicole McCowan	Voting Member, Campus Veterinary Services
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Chelsea Schiano	High Containment Facility Officer, EH&S
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services

Guests:

	Student Intern
Angelina Madrigal-Alonso	Executive Assistant, Safety Services
Katarina Mitchel	Administrative Assistant, Safety Services

Call to Order: A *quorum* was established with 10 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Angela Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

Jan. 23, 2017

Approved (9-0-1, Najita abstained)

II. Announcements:

Introductions of Chemistry student, [REDACTED] (Student Intern) and Katarina Mitchel (Safety Services Business Office).

III. Old Business:

BUAs conditionally approved at the Jan 23, 2017 IBC meeting:

N R2464 [REDACTED] Reviewer: vx
Characterization of host-virus interactions and importance for virus host range and virulence
NIH Guidelines: IIID1a, IIID4a, IIIE, IIIF8, App C-II, App C-III
Approved (12-0-0) Tsolis and Chen joined the meeting

IV. New Business:

A. New and renewal BUAs for review:

BSL2

R R1518 [REDACTED] Reviewer: az
In vitro and in vivo evaluation and imaging of delivery vehicle and therapeutic efficacy for various disease models
NIH Guidelines: IIID4a, IIIF8 App C-I
Approved (12-0-0)

- o Training of 20 staff is all current
- o Risk Assessment well-written

R R1535 [REDACTED] Reviewer: vx
Molecular and Cellular Characterization of Sphingomyelinase, A Regulator of the Ceramide Pathway and Apoptosis in the Lung
NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II
Approved (12-0-0)

R R1538 [REDACTED] Reviewer: vx
NADPH oxidases in liver diseases
NIH Guidelines: IIID3a, IIID3b, IIID3e, IIID4a, IIID4b, IIIE1, IIIF8, App C-II
Approved (12-0-0)

- o Question about description of injection procedure for mice – it was described in the BUA

R R1551 Keen, Carl Reviewer: vx
Investigating the influence of dietary components on human health
NIH Guidelines: IIID3b, IIIE, IIIF8, App C-II
Approved (12-0-0)

- R **R1556** [REDACTED] Reviewer: az
Recognition and repair of mismatched DNA by MUTYH
NIH Guidelines: III E1a
Approved (12-0-0)
 - Add NIH Guidelines IIIF8, App CII
 - Add the source of mice
 - PI's BBP training must be renewed
- R **R1558** Boundy-Mills, Kyria Reviewer: jb
Phaff Yeast Culture Collection, Boundy-Mills laboratory
NIH Guidelines: NA
Approved (12-0-0)
- R **R1560** [REDACTED] Reviewer: az
Cytokine and androgen receptor signaling in prostate cancer
NIH Guidelines: IIID4a, IIIF8 App C-II
Approved (12-0-0)
 - Clarify if mice have tumors already or are being injected to develop tumor
 - Mouse prostate cells do not require BSL2 containment
 - Lentiviral vectors can cause insertional mutagenesis, even if with non-hazardous genes
 - Add the location where cell sorting will be done
- R **R1563** [REDACTED] Reviewer: az
Regulation of NMDA receptors
NIH Guidelines: IIID3a, IIID4a, IIIF8, App C-II
Approved (12-0-0)
- N **R2476** [REDACTED] Reviewer: vx
Microbes associated with feline anal sacs
NIH Guidelines: N/A
Approved (12-0-0)
- N **R2480** Kol, Amir Reviewer: vx
Stem cell use for regenerative medicine
NIH Guidelines: IIID3a, IIID3b, IIIE, IIIF8, App C-II
Approved (12-0-0)
 - Indicate which vectors are used for which genes
- N **R2485** Li, Yuanpei Reviewer: az
Development of targeting nanoparticles as efficient imaging and therapeutic agents
NIH Guidelines: IIID1a
Approved (12-0-0)
 - Add details regarding transport of human cells from surgery site to lab

- PPE should include safety goggles (when splash hazard exists)

BBP only

R R1536 Li, Tianhong Reviewer: vx

Targeting Signal Transduction Pathways in Cancer

NIH Guidelines: N/A

Approved by Biosafety Officer

R R1565 Guo, Ting Reviewer: az

Nanostructure-Enabled Chemotherapy through X-ray Activation for Breast Cancer Treatment

NIH Guidelines: N/A

Approved by Biosafety Officer

- Update training on BBP ECP
- Update PI BBP training and one other lab person's BBP training

N R2457 Engle-stone, Reina Reviewer: vx

Micronutrient absorption, metabolism, and status

NIH Guidelines: N/A

Approved by Biosafety Officer

N R2471 Lemay, Danielle Reviewer: az

Understanding the effect of diet on gut microbes and/or host response.

NIH Guidelines: N/A

Approved by Biosafety Officer

- Add the following text to BUA "Staff will be trained on the BBP ECP"
- Update one staff member's BBP training

N R2478 Yasui, Dag Reviewer: jb

Methylomic and genomic impacts of organic pollutants in Dup15q syndrome

NIH Guidelines: N/A

Approved by Biosafety Officer

- Change bleach exposure time to 30 minutes

BSL1

R R1517 Wilson, David Reviewer: jb

Structural studies of plant-pathogen interactions

NIH Guidelines: III E, III F8 App C-II

Approved (12-0-0)

R R1529 Schmitt, Johanna Reviewer: jb

Understanding and predicting phenotypic responses to climate using mutants and natural variants of genes controlling life history traits in *Arabidopsis thaliana*

NIH Guidelines: III E2a

Approved (12-0-0)

- Transgenic seeds, what are the access hours to lab?
- Add autoclave conditions for plants

R **R1541** Maggs, David Reviewer: jb

Studies with FHV-1 and other herpesviruses

NIH Guidelines: NA

Approved (12-0-0)

- Indicate that PPE doesn't leave the rooms

R **R1562** Cai-Zhong, Jiang Reviewer: jb

Regulation of plant development and senescence and stress resistance

NIH Guidelines: III E2a

Approved (12-0-0)

- Describe transport of plants that addresses unintentional release
- Need training for one staff member
- *E. coli* and check "yes" to question about modifying genes

R **R1564** Chetelat, Roger Reviewer: vx

Deciphering mechanisms of prezygotic reproductive isolation in *Solanum*

NIH Guidelines: III E, III E2a, III F8, App C-II, C-III

Approved (12-0-0)

- Yeast 2-hybrid work is exempt from NIH Guidelines and does not need to be describe in the BUA
- Add risk assessment for potential of pollination across species

N **R2474** Oki, Lorence Reviewer: az

Landscape Plant Performance: Water Use Assessments and New Cultivar Selections

NIH Guidelines: N/A

Approved (11-0-1 Chen abstained)

- Indicate which virus is referred to in the "candidate source plants for the virus" description, in the Project Summary
- Autoclave conditions should be 30 minutes, not 20 minutes

N **R2475** [REDACTED] Reviewer: jb

Experimental infection of black-capped chickadees with poecivirus

NIH Guidelines: N/A

Conditionally Approved (12-0-0)

- Importing virus to California?
- Ask PI to use J1 ABSL3
- Need to assure that virus will not be spread via aerosol
- Is there a risk to humans?

N **R2487** Ames, James Reviewer: az

Structural and molecular basis of calcium-dependent signal transduction in the brain and retina

NIH Guidelines: III E1a
Approved (12-0-0)

B. Amendments:

BSL2

R1583

Silva, Eduardo

Reviewer: az

Engineering Vascular Beds

NIH Guidelines: IIID1a

Add: use of AAV and Adenovirus use in human cells;

Approved (12-0-0)

R2084

Retinoic acid, its receptors, and the liver

NIH Guidelines: NA

Add: use of pathogenic bacteria in mice

Tabled (12-0-0)

- No adequate risk assessment noted or the risks to humans
- The *E. coli* strains they're adding won't induce colitis in mice

Reviewer: jb

R2223

Therapeutic and prophylactic interventions against HIV/AIDS

NIH Guidelines: IIID4a

Add: adenoviral vector

Approved (10-0-2 Barruel abstained, Belcourt stepped out during vote)

- Move entry to viral vector section

Reviewer: pb

R2339

Understanding the fundamental lipid-protein interactions that shape membrane identity and excitability

NIH Guidelines: NA

Add: NHP tissues

Approved by Biosafety Officer

Reviewer: jb

BSL1

R1767

Zerbe, Philipp

Reviewer: jb

Investigating Plant Metabolic Diversity For Human Health And Bioproducts

NIH Guidelines: III E2a

Add: plant species *Panicum virgatum*, *Agrobacterium* strain GV3101, greenhouse locations [redacted] and [redacted], field space at Orchard Park for transgenic plant growth, and fungal species *Aspergillus flavus* and *Fusarium verticillioides*

Approved (12-0-0)

Belcourt returned to meeting

R1794

Ryan, Karen

Reviewer: jb

Understanding the neuroendocrine mechanisms linking nutrition, stress and cardiometabolic diseases

NIH Guidelines: IIID4b

Add: use of AAV in mice/rat and cells

Approved (12-0-0)

R1930

[REDACTED]

Reviewer: jb

Neurobiological mechanisms of memory consolidation

NIH Guidelines: IIID4b

Add: use of CAV2 viral vector in mice

Approved (12-0-0)

R1932

Hammock, Bruce

Reviewer: pb

Detection and mechanisms of action of xenobiotic and naturally occurring chemicals

NIH Guidelines: IIID3e

Add: baculoviral vector

Approved (11-0-1 Barruel abstained)

C. Storage only: None

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

R R1530

[REDACTED]

Reviewer: jb

Analysis of genes involved in mammalian meiosis

NIH Guidelines: IIID1b, IIID4b, IIID4c1, IIIE1, IIIF8 App CII

Conditional Approval Date: 1/23/2017

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

Conditional Approval Date: 12/16/2016

N R2452

[REDACTED]

Reviewer: jb

New methods for the study of oogenesis

NIH Guidelines: IIID1a, IIID4b

Conditional Approval Date: 11/28/2016

E. Terminated BUAs:

C1468

Asmuth, David

Reviewer: cj

Randomized, Double Blind, Phase 2B Study Testing the Efficacy and Safety of [REDACTED] on Host Control of HIV Replication during Analytical Treatment Interruption

Exp date: 5/31/2016

R1524 Borjesson, Dori Reviewer: kr
Bacterial induced myelosuppression in a mouse model of *A. phagocytophilum* infection
Exp date: 01/31/2017

R1547 De Vere White, Ralph Reviewer: pb
Functional study of aberrantly expressed miRNAs in prostate cancer
Exp date: 02/24/2017

R2198 Griffiths, Leigh Reviewer: jb
Extracellular matrix bioscaffold augmented with human stem cells for cardiovascular repair
Exp date: 02/28/2019

F. Extension of old BUAs: None

V. Discussion Items:

1. Inspectors from CDPH completed 48 hours of inspections of our Medical Waste Management Program. An inspector from Sacramento County Public Health also inspected the Sacramento campus for the Medical Waste Management Program there.
2. The Biosafety Office will be working on a campus-wide BBP ECP.

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics:

Adjournment: 4:33 pm

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

Minutes

April 24, 2017 (3:02 PM – 4:53 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services
Karen McDonald	Voting Member, Chemical Engineering
Lyle Najita	Voting Member, Public Member
Karega Paisley	Voting Member, Alternate, Occupational Health Services

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:

Adrienne Zweifel	Associate Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Johan Leveau	Voting Member, Alternate, Plant Pathology
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services

Guests:

Angelina Madrigal-Alonso	Executive Assistant, Safety Services
██████████	Lab Manager for ██████████

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 Elizabeth Maga, acting IBC Chair. Committee voted to have Maga chair meeting

Approved (8-0-1 Maga abstained)

I. Review of past IBC meeting minutes:

March 27, 2017

Approved (9-0-0)

II. Announcements: Introduction of Dr. Karega Paisley

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL3

R R1610

[REDACTED]

Reviewer: cs

Transmission of Citrus Leprosis Virus by Brevipalpus mites

NIH Guidelines: N/A

Hartigan-O'Connor joined meeting (10 voting members)

Approved (10-0-0)

- USDA permit is expired, OK if the permit was for import only and no further importations will be done
- CDFA permit is expired, request that they attach new permit to BUA

R R1616

[REDACTED]

Reviewer: cs

Mechanisms of infection by intracellular bacterial pathogens

NIH Guidelines: IID1a, IID1b, IID2a, IID3b

Approved (10-0-0)

- [REDACTED] lab manager answered IBC questions
- Mice aren't anesthetized for the IP's injections.

BSL2

R R1537

[REDACTED]

Reviewer: jb

Mitochondrial dynamics in mammalian systems

NIH Guidelines: III-E-1, III-F-8 (C-II)

Approved (10-0-0)

- BBP training is outdated for a lab person
- Restricted species permit is maintained by IACUC office and does not need to be attached to the BUA (it can be deleted)
- Clarify whether the lab still works with animals

R R1575

Murphy, Christopher

Reviewer: vx

Cellular Biophysical Cues and Disease

NIH Guidelines: IID3b, IIIE

Approved (10-0-0)

R R1581

Chedin, Frederic

Reviewer: vx

Addressing the functional roles of R-loop structures in mammalian cells
NIH Guidelines: IIID3b, IIIE, IIIF8, App C-II
Approved (10-0-0)

R **R1583** [REDACTED] Reviewer: az

Engineering Vascular Beds
NIH Guidelines: IIID3b, IIID4a, IIIE1a
Approved (9-0-0) Jacobsen stepped out

- Umbilical cord blood is de-identified therefore no IRB needed

R **R1595** Rauen, Katherine Reviewer: az

The identification of gene mutations in medical genetic syndromes and their effects on development
NIH Guidelines: IIIE1a
Approved (10-0-0) Jacobsen returned to meeting

R **R1598** [REDACTED] Reviewer: vx

Breeding transgenic and mutant mice and other related RNAi projects, and Development of the retinofugal pathways in the ferret
NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II, C-III, C-VIII
Approved (10-0-0)

R **R1604** [REDACTED] Reviewer: vx

A novel MuSk splicing variant and treatment of MuSK myasthenia
NIH Guidelines: IIID3a, IIID3b, IIID4a
Approved (10-0-0)

- Verify IACUC protocol number
- Flow cytometry is done in a BSC to contain aerosols

R **R1621** [REDACTED] Reviewer: jb

The role of microbes in human health and illness and evaluation of test methods for diagnosis and management of infectious diseases.
NIH Guidelines: NA

Approved (9-0-0) Paisley left meeting before voting took place

- For toxin work, wash hands with soap and water. Use alcohol based gel such as hand sanitizer
- Clarify bleach concentration
- Confirm autoclave bedding before incineration
- Coordinate housing of infected mice with Animal Health Coordinator

R **R1623** [REDACTED] Reviewer: jb

Mouse Models of Lyme Borreliosis
NIH Guidelines: IIID2a, IIID4a, IIIF8 (App CII, CVII, CVIII)
Approved (9-0-0)

R **R1627** [REDACTED] Reviewer: jb

Production of transgenic and chimeric large-animals as medical models

NIH Guidelines: IID4

Approved (8-0-1 Maga abstained)

- Clarify when respirators will be used, and not face mask
- Clarify if sheep are tested for Q fever
- Clarify if stem cell embryo transplants are allowed to go to term
- Stem cell development is stopped at 28 days of gestation
- Clarify animal housing after transplantation
- Remove/modify sentence about "...pregnant women..."

BBP only

R R1601

Maverakis, Emanuel

Reviewer: vx

Human explant model and human blood analysis

NIH Guidelines: IIIF8, App C-II

BSO Approved

BSL1

R R1588

Bruening, George

Reviewer: az

Plant perception of pathogen macromolecules

NIH Guidelines: IIIE1a, IIIE2

Approved (8-0-0)

- Include a risk assessment for virus release of TMV (as was provided for TRV & CPMV)

R R1589

Gilbertson, Robert

Reviewer: az

Investigation into the biology, evolution, genetics, and management of plant pathogens

NIH Guidelines: IID5a, IIIE1a, IIIE2a

Approved (8-0-0)

N R2494

[REDACTED]

Reviewer: vx

In vivo imaging of novel optogenetic sensors in transgenic zebrafish

NIH Guidelines: IID4a, IIIE, IIIF8, App C-II

Approved (8-0-0)

- Clarify if transgene is in the germline

N R2501

Cramer, Stephen

Reviewer: az

Characterization of Metalloenzymes

NIH Guidelines: IIIE1a

Approved (8-0-1 Paisley abstained) Dr. Paisley returned to meeting

B. Amendments:

BSL3

R R1863

[REDACTED]

Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: IID1b, IID1a, IID2a, IID4a

Add: Procedure to remove inactivated whole ZIKV infected mosquitos from BSL-3 for imaging

Add: Research with recombinant ZIKV

Approved (9-0-0)

- Concern for transforming cells with infectious closes of ZIKV at BSL-2 before moving to BSL-3, but ZIKV is a risk group 2 agent, it is OK to do this work in a BSL-2 lab
- Clarify length of time between transformation and transfer to BSL-3

BSL2

R2216

Reviewer: pb

Inflammatory cytokines and chemokines in skin inflammation and neoplasia

NIH Guidelines: N/A

Add: human skin tissue and procedure to graft the tissue onto immune deficient mice to develop a psoriasis mouse model.

Approved (8-0-1 Barruel abstained)

- Coordinate animal housing of grafted mice with the Animal Health Monitoring Coordinator

BSL1

R2244

Blumwald, Eduardo

Reviewer: az

Salt and drought tolerance in plants

NIH Guidelines: N/A

Add: Rice pathogens *Burkholderia glumae* and *Herbaspirillum rubrisubalbicans*

Approved (9-0-0)

C. Storage only:

R R1613

Wuertz, Stefan

Reviewer: jb

Storage Only: Management of pathogens in stormwater run off and bacterial diversity in wastewater reactors

NIH Guidelines: N/A

Approved (9-0-0)

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

R2042

Reviewer: pb

Skin wound healing

NIH Guidelines: N/A

Add: Locations, *Staph. aureus*, infection of mice, and analysis of infected mouse tissue

R2084

Reviewer: jb

Retinoic acid, its receptors, and the liver

NIH Guidelines: N/A
Amendment: use of pathogenic bacteria in mice

E. Terminated BUAs:

R1622 [REDACTED] Reviewer: th
Behavioral assessment of mice infected with HSV-1 and treated with Acyclovir
or Acyclovir in combination with IVIG
Exp date: 4/21/2017

R1639 Zern, Mark Reviewer: pb
Gene therapy, molecular therapy and cell-based therapy for liver diseases
Exp date: 5/19/2017

F. Extension of old BUAs: None

V. Discussion Items:

1. CDPH Medical Waste Inspection Report requested to fix several issues and the answer needs to be submitted within 30 days of receipt of report.

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

1. [REDACTED] BSL-3 facility annual reverification
Approved (9-0-0)
 - o Inspection of [REDACTED] building had no positive excursions from main lab and in basement lab containment barrier is intact. Schiano recommended that operation continued to be allowed. Next Spring there is a plan in place to fix problems with deep negative conditions during annual shut down.
2. [REDACTED] BSL-3 facility annual reverification
Approved (9-0-0)
 - o Inspection of [REDACTED] shows that containment barrier for the lab is intact (no leaky penetrations)
 - o Transient airflow reversals are noted from the anteroom and changing room, but no cascading reversal from actual lab space to public spaces.

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 4:55 pm

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

Minutes

July 24, 2017 (3:15 - 4:45 pm)

Hoagland Hall, Rm 130

NOTE: Next IBC meeting: 08/28/2017

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Nicole McCowan	Voting Member, Campus Veterinary Services
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
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Johan Leveau	Voting Member, Alternate, Plant Pathology
Elizabeth Maga	Voting Member, Animal Science
Karen McDonald	Voting Member, Chemical Engineering
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Karega Paisley	Voting Member, Alternate, Occupational Health Services
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services

Guests:



Student Employee, EH&S
Student Employee, EH&S

Call to Order: A *quorum* was established with 7 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:15 pm by Angela Gelli, IBC Chair.

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

June 26, 2017

Approved (7-0-0)

II. **Announcements:** None

III. **Old Business:** None

IV. **New Business:**

A. **New and renewal BUAs for review:**

BSL-2

R **R1679**

[REDACTED]

Reviewer: cs

Molecular and cell studies with infectious agents

NIH Guidelines: IID3a, IIE1, IIF8 (App CII)

Approved (7-0-0)

R **R1682**

Heyer, Wolf

Reviewer: vx

Mechanisms and Regulation of Homologous Recombination

NIH Guidelines: IID3b, IID3e, IID6, IIE, IIF8, App C-II, CIII

Gershwin and Ma joined meeting (9 voting members)

Approved (9-0-0)

- List the room where the 60L fermenter is located
- Delete “running water” from risk assessment section
- Add Appendix K to NIH Guidelines section

R **R1686**

[REDACTED]

Reviewer: jb

Protective immunity against typhoid; CD4 T cell responses to *Chlamydia*;

Development of a model to visualize CD4 T cell responses to non-pathogenic

E. coli

NIH Guidelines: IID1a, IID2a, IID4b, IIEIII

Approved (9-0-0)

- Add discussion on how to mitigate auto-inoculation risk (e.g. sharps safety, response procedures)
- Delete mention of oncogenes
- Wild mice used, LCM is a concern

R **R1695**

[REDACTED]

Reviewer: vx

Galectin-3 in Regulation of Allergic Skin Inflammation

NIH Guidelines: IID3a, IID3b, IIE, IIF8, App C-II

Approved (9-0-0)

- Add lab location where bacteria and fungi are cultured
- Clarify PPE used with fungi and bacteria

R **R1698** [REDACTED] Reviewer: vx
Zinc metabolism in humans and animal models

NIH Guidelines: IIID3b, IIID3a, IIIE3, IIIF8, App C-VII, C-VIII

Approved (9-0-0)

- Correct typo for the word biohazard
- Delete “latex” when referring to gloves

N **R2509** Kinyua, Maureen Reviewer: vx
Pathogen inactivation during anaerobic digestion of livestock and fecal waste under varying operating parameters.

NIH Guidelines: N/A

Approved (9-0-0)

- Add a statement stating that all procedures are done in a biosafety cabinet

N **R2510** Diaz, Samuel Reviewer: vx
Coinfection and Reassortment in Human and Avian Influenza Viruses

NIH Guidelines: N/A

Approved (9-0-0)

- Change “avoid” to “will not” regarding the use of high pathogenic strains of avian influenza

N **R2514** Penn, Bennett Reviewer: cs
Cellular Immune Response to *Mycobacteria*

NIH Guidelines: IIID2a, IIID3a, IIIE1, IIIF8

Approved (9-0-0)

- Add sentence that states that the Dual-Use agent does not fall under DURC
- All procedures done on the lab bench – follow up about whether this can be done in the biosafety cabinet
- Add risk of insertional mutagenesis in case of exposure to lentiviral vectors
- Fix typo for animal primary cell – “macropahge”
- Indicate correct lentiviral vector generation
- Change “BSL2” organism to “RG2 organism”
- Add eye protection for rDNA PPE

BBP only

R **R1684** Vandervoort, Catherine Reviewer: az
Discarded human tissues and cells for reproductive research

NIH Guidelines: N/A

Approved by Biosafety Officer

- Indicate what is being used to disinfect surfaces

R **R1687** Lebrilla, Carlito Reviewer: az
Sample preparation for oligosaccharide analysis

NIH Guidelines: N/A

Approved by Biosafety Officer

- Add statement stating that all procedures will be done in the Biosafety cabinet
- Clarify that gloves, lab coat, and eye protection will be worn when working with all human cell lines

N R2483

Swartz, Johnna

Reviewer: az

Adolescent Health and Brain Study

NIH Guidelines: N/A

Approved by Biosafety Officer

- Clarify why blood processing cannot be done in the biosafety cabinet
- Two of the staff members have outdated BBP training

BSL-1

R R1658

Kluepfel, Daniel

Reviewer: jb

Plant-Microbe Interactions and integrated strategies for management of plant disease

NIH Guidelines: III E2a, III E2b(3), III E2b(4), III F8, App C-II

Approved (9-0-0)

- Confirm whether he needs/has a permit
- Clarify issue with expired CDFA permit

R R1681

Dubcovsky, Jorge

Reviewer: az

Wheat Genetics

NIH Guidelines: III E2a, III E2b(3), III F8, App C-II

Approved (9-0-0)

R R1685

Engbrecht, Joanne

Reviewer: az

Meiosis and checkpoint signaling in *C. elegans*

NIH Guidelines: III D4a, III E1, III F8, App C-II, App C-III

Approved (9-0-0)

- Clarify how much liquid is being put into waste bags for autoclaving

R R1693

Roth, John

Reviewer: jb

The origin of mutations under selection

NIH Guidelines: III E1, III F8, App C-II

Approved (9-0-0)

- Specify ethanol and bleach concentrations
- PI needs rDNA training

B. Amendments:

BSL-2

R1968

Aquatic Animal Health Research

Reviewer: jb

NIH Guidelines: IIID1a, IIID4a,

Add: Addition of pathogen, rodent work.

Approved (9-0-0) Ma stepped out momentarily but returned for voting

- Add route of infection in humans to Risk Assessment section
- Add person and location

R2084

Reviewer: jb

Retinoic acid, its receptors, and the liver

NIH Guidelines: IIID2a, IIIE3a

Add: Activation of oncogenes in rodents.

Approved (9-0-0) Belcourt stepped out momentarily but returned for voting

- Add discussion of oncogene autoinoculation in the Risk Assessment section
- Clarify if any materials are added to plasmids

R2231

Reviewer: jb

Kinase pathways that regulate the cytoskeleton during neuronal development

NIH Guidelines: IIID1a, IIID4b, IIIE1

Add: Established human cell lines

Approved (9-0-0)

- Training is missing for one staff member

R2442

Reviewer: az

Experimental gene therapy research

NIH Guidelines: IIID4a

Add: replication-deficient ChAdv expression vector and self-replicating RNA expression vector; changed title

Approved (9-0-0)

C. Storage only:

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

E. Terminated BUAs:

R1689

Tinling, Steven

Reviewer: th

The Role of the Inflammatory Process in the Etiology of Labyrinthitis

Ossificans

Exp date: 7/21/2017

F. Extension of old BUAs: None

V. Discussion Items:

- a. Draft "Safety Expectations" letter

Approved (9-0-0)

VI. Information Items:

- a. Lab Specific BBP-ECP Fact Sheet
 - To be attached to BUA, have a printed copy that they can take to Occupation Health Services

VII. IBC Training: None

VIII. BSL-3 Laboratory Information

- a. [REDACTED] BSL-3 Re-Certification – Schiano
Approved (9-0-0)

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 4:45 pm

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

Minutes

Sept 25, 2017 (3-5:38pm)

Hoagland Hall, Rm 130

NOTE: Next IBC meeting: 10/23/2017

In attendance:

Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
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
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Johan Leveau	Voting Member, Alternate, Plant Pathology
Karen McDonald	Voting Member, Chemical Engineering
Lyle Najita	Voting Member, Public Member
Karega Paisley	Voting Member, Alternate, Occupational Health Services
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services

Guests:

	Student Employee, EH&S
	Student Employee, EH&S
Ian McHardy	Veterinary Radiological and Surgical, Willcox Lab Medical Microbiology and Immunology, McHardy Lab

Call to Order: A *quorum* was established with 9 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:00 pm by Renee Tsolis, IBC Vice Chair.

I. Review of past IBC meeting minutes:

Aug 28, 2017

Approved (8-0-1 Belcourt abstained)

II. Announcements: Introduced new student helping take IBC notes.

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL3

N R2524

McHardy, Ian

Reviewer: cs

Diagnostics and Research Involving Dimorphic Fungi

NIH Guidelines: IID2a

Approved (10-0-0) Hartigan-O'Connor joined the meeting

- Change submerge broken glass in bleach to spray broken glass with 70% ethanol.
- Remove any references to BSL2 agents
- Sharps containers don't have to be red in color, and have 30 days (not 7) to dispose of it after the contents reach the fill line
- Brief description of risks of working with human body fluids and cells in experimental procedures section – no mention of training on BBP-ECP or of offer of Hepatitis B vaccine series
- One person needs a more recent BBP training date

BSL2

R R1678

Reviewer: vx

Leukemia stem cells ligand screening/Bladder cancer ligand screening, imaging/Personalized therapy in NSG mice carrying PDX

NIH Guidelines: IID3b, IID4a, III E, III F8, App C-II

Approved (10-0-0)

R R1709

Reviewer: jb

Cryo-Imaging Fluorescent Influenza Virus

NIH Guidelines: IID1a, IID4a

Conditionally Approved (10-0-0)

- Leave out unfixed H3N2 sample analysis on a new machine until they can get more regarding aerosol generation
- Address sharps risk for the blade used in sectioning device
- Clarify PPE expectations for unfixed influenza sample work
- Edit research operations described in location section

- R **R1721** [REDACTED] Reviewer: jb
Molecular ecology of avian influenza viruses in wild birds and mammals
 NIH Guidelines: N/A
 Approved (10-0-0)
 • If they find HPAI, they will give it to CAHFS
- R **R1728** [REDACTED] Reviewer: jb
Cell and animal models of mitochondrial disease
 NIH Guidelines: IIID1a, IIID2a, IIIF8, App C-II, App C-III
 Approved (10-0-0)
 • Edit outdated statements
 • Consider removing mice from BUA if only used for tissue samples
- R **R1737** [REDACTED] Reviewer: vx
Investigation of the roles of centrosomes in development and disease
 NIH Guidelines: IIID3b, IIID4a, IIIE, IIIF8, App C-II
 Approved (9-0-0) Belcourt stepped out
- N **R2479** [REDACTED] Reviewer: vx
Systems Genetic Approaches to Atherosclerosis
 NIH Guidelines: IIID4a, IIIE, IIIF8, App C-II
 Conditionally Approved (10-0-0) Belcourt returned
 • Provide information on work with siRNA
 • Describe the transgenic mice and how these transgenic mice will be used
- N **R2530** [REDACTED] Reviewer: vx
Evaluation of a recombinant, attenuated *Listeria monocytogenes* expressing a chimeric human HER2/neu protein in dogs with osteosarcoma in the adjuvant setting
 NIH Guidelines: IIID4a
 Approved (10-0-0)
 • Provide information on QC check on the bacterial vaccine to verify if the bacterium can propagate and rescued through recombination.
 • Change “avirulent” to “attenuated” in the risk assessment
 • One researcher needs to complete rDNA training
- N **R2531** Borjesson, Dori Reviewer: jb
Ultraviolet Light Eradication of Bacterial Pathogens
 NIH Guidelines: N/A
 Approved (10-0-0)
- N **R2533** Dickover, Ruth Reviewer: vx
Human Forensic Biology Laboratory
 NIH Guidelines: N/A

Approved (10-0-0)

- No BSC. The quantity of human source materials is small and can be handled safely using the PPE described in the BUA.

BBP only

R 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
Approved by Biosafety Officer

N R2534 McNary, Sean Reviewer: az
Biomechanical Testing and Biochemical Analysis of Human Blood and Musculoskeletal Tissues
NIH Guidelines: N/A
Approved by Biosafety Officer

BSL1

R R1725 Igo, Michele Reviewer: az
The response of Gram-negative bacteria to environmental changes
NIH Guidelines: III E, III F8, App C-II
Approved (10-0-0)

- Clarify conflicts with state permit and BUA
- Current *Xylella fastidiosa* permit needs to be uploaded

R R1726 Al-bassam, Jawdat Reviewer: vx
Biochemical and structural studies on the mechanism of microtubule polymerization and depolymerization by regulatory proteins
NIH Guidelines: III D3e, III E, III F8, App C-II
Approved (10-0-0)

R R1732 Dvorak, Jan Reviewer: az
Characterization of the tenacious glume trait in *Aegilops tauschii*
NIH Guidelines: III E1, III F8, App C-II
Approved (10-0-0)

- Autoclave for one hour instead of 30 minutes (potentially change UC Davis policy)

B. Amendments:

BSL2

R1616 [REDACTED] Reviewer: cs
Mechanisms of infection by intracellular bacterial pathogens
NIH Guidelines: NA
Add: *Anopheles stephensi* mosquitoes to study transmission of murine malaria Parasites

Approved (9-0-1), Maga temporary chair, Tsolis abstained

- Remove IACUC protocol number in Experimental Procedures
- Shared ventilation prevents use of pesticide
- Housing rooms and insectary listings need to be fixed
- Risk Assessment section (for the amendment) should mention the risk of exposure to parasite-infected mouse blood or getting bit by infected mosquitos
- Revise language to show non-pathogenicity to humans

R1640

[REDACTED]

Reviewer: jb

Genome Engineering in Mammalian Systems

NIH Guidelines: IIID1a, IIID3a, IIID4a

Add: Adenovirus vector (Ad5), new transgenic mouse

Approved (10-0-0)

R1687

Lebrilla, Carlito

Reviewer: az

Sample preparation for oligosaccharide analysis

NIH Guidelines: N/A

Add: HIV+ human cell lines (experimentally infected)

Approved (10-0-0)

R1786

Weiss, Robert

Reviewer: vx

Studies in Kidney Cancer and Polycystic Kidney Disease

NIH Guidelines: IIIE, IIIF8, App C-II

Add: Procedures-Transfect a plasmid containing the *myc* oncogene into cultured cells

Approved (10-0-0)

R2435

[REDACTED]

Reviewer: az

Nonhuman Primate Model of Alzheimer's Disease

NIH Guidelines: N/A

Add: Update risk assessment to include unfixed brain tissue, bench top work to be done behind a splash shield

Tabled (10-0-0)

- More information is needed regarding why they choose to perform the work outside of the biosafety cabinet

C. Storage only:

R R1720

Boyce, Walter

Reviewer: jb

Storage Only: *Mesocestoides spp.* tapeworms, *spirometra-type* tapeworms, *Taenia crassiceps*

NIH Guidelines: N/A

Approved (10-0-0)

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

E. Terminated BUAs:

R1736 Reddi, A Hari Reviewer: az
Biomechanical Testing of Human Musculoskeletal Tissues
Exp date: 09/15/2017

R2180 Reddi, A Hari Reviewer: az
Biochemical Analysis and Tribological Testing of Platelet-Rich Plasma and Blood
Exp date: 02/28/2019

R1784 Luo, Mingcheng Reviewer: mm
Molecular genetics and genomics of plants
Exp date: 11/30/2017

F. Extension of old BUAs: None

V. Discussion Items:

1. BUAs not ready for submitting to IBC in BIO when meet agenda is sent
 - a. Various reasons for this
2. VHSS Discussion- Waste Disposal for Livestock/Human Cell Grafting Experiments
 - a. No need to incinerate the feces
3. When should someone have their own BUA?
 - a. PI on a grant should be PI on the BUA
4. PPE in public areas (outside of lab) – one glove policy
 - a. Biosafety Office recommendation: no PPE in public areas
 - b. Needs further discussion
5. Food at IBC Meetings

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 5:38 pm

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

Minutes

Aug 28, 2017 (3:00-5:01pm)

Hoagland Hall, Rm 130

NOTE: Next IBC meeting: 09/25/2017

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Elizabeth Maga	Voting Member, Animal Science
Lyle Najita	Voting Member, Public Member
Karega Paisley	Voting Member, Alternate, Occupational Health Services

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:

Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Nicole McCowan	Voting Member, Campus Veterinary Services
Karen McDonald	Voting Member, Chemical Engineering
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Adrienne Zweifel	Associate Biosafety Officer, EH&S

Guests:

	Student Employee, EH&S
	Student Employee, EH&S
Lee Ann Richmond	Facility Manager and Safety Officer, Suslow Lab

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 Elizabeth Maga, acting IBC Chair. Committee voted to have Maga chair meeting.

Approved (7-0-1 Maga abstained)

I. Review of past IBC meeting minutes:

July 24, 2017

Hartigan-O'Connor joined meeting (9 voting members)

Approved (8-0-1 Jacobsen abstained)

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

HGT

N C2515

Giermasz, Adam

Reviewer: pb

Gene-transfer, open-label, dose-escalation study of [REDACTED] [adeno-associated viral vector with B-domain deleted human factor VIII gene] in individuals with hemophilia A

NIH Guidelines: IIIC, IIID1

Approved (9-0-0)

BSL-3

R R1722

Reviewer: cs

Avian virology in a veterinary diagnostic laboratory

NIH Guidelines: N/A

Approved (9-0-0)

- Ensure materials shipped to CAHFS are IATA-compliant
- Verify that newly inoculated eggs decontaminated with 70% ethanol before taken out of BSC

BSL-2

R R1605

Suslow, Trevor

Reviewer: az

Study of the microbiological safety of fresh produce

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

Approved (7-0-1 Ma Abstained) Hartigan-O'Connor not in meeting

- An apple fruit should not be marked as "whole plant" in BUA form
- BUA revision recommendation: immediately contact Occupational Health Services and EH&S in case of exposure to pathogens

R R1688

Reviewer: jb

Neural-immune and Brain-gut interactions

NIH Guidelines: IIID4a, IIIE1, IIIF8, App C-II

Approved (9-0-0)

- Clarify work load and training requirements for authorized personnel

R **R1696** [REDACTED] Reviewer: jb

Metabolic functions of protein tyrosine phosphatases and their substrates

NIH Guidelines: IID4a, IIF8, App C-I, App C-II

Approved (9-0-0)

- Clarify the PPE being used
- Clarify summary of containment practices
- Clarify animal room usage
- Confirm the use of hospital-grade disinfectant

R **R1719** [REDACTED] Reviewer: vx

Cancer Risk: *in vitro* and *in vivo* Studies of Human Adipose Stem Cells on Primary Tumor Breast Cancer Cells

NIH Guidelines: IID4b

Approved (8-0-0) Hartigan-O'Connor not in meeting

- Clarify provider of tissue and IRB number

N **R1864** Zeki, Amir Reviewer: az

Mevalonate Pathway and Statins in Regulating Airway Epithelial and Lung Inflammation, Remodeling, and Healing

NIH Guidelines: IID1, IIE

Paisley and Ma left, Hartigan-O'Connor is back (7 voting members)

Approved (7-0-0)

N **R2512** Shah, Priya Reviewer: az

Systems and Synthetic Biology of Virus-Host Interactions and Cellular Engineering

NIH Guidelines: IID1, IIE1, IIF8

Approved (7-0-0)

N **R2517** [REDACTED] Reviewer: jb

A 3D *in vitro* disease model of atrial conduction

NIH Guidelines: IID3b, IIE1, IIF8, App C-II

Ma returned to meeting (8 voting members)

Approved (8-0-0)

- Clarify the name of the gene of interest
- Confirm IRB approval is not needed
- Typo: Adenoviral vector should be changed to lentiviral vector
- Provide description of downstream cellular analysis and risk assessment for these procedures

N **R2518** [REDACTED] Reviewer: jb

A 3D *in vitro* model of human bone marrow

NIH Guidelines: IID3b, IIE1, IIF8, App C-II

Approved (8-0-0)

- Provide description of cord blood operations and risk assessment for these procedures
- Acknowledge autoinoculation risk for the injection of agents into mice in risk assessment
- Confirm IRB approval is not needed

N R2519 George, Steven Reviewer: jb
"Cancer-on-a-chip": an *in vitro* platform to advance personalized therapy

NIH Guidelines: IIID3b, IIIE1, IIIF8, App C-II

Approved (8-0-0), Najita stepped out, stepped back in before vote

- Confirm IRB approval is not needed

N R2521 Fairclough, Robert Reviewer: jb
Production of sc Fv fragment of mAb 132A, an anti-AChR mAb directed to the MIR

NIH Guidelines: IIIF8, App C-II

Approved (8-0-0)

BBP only

R R1683 Keim, Nancy Reviewer: vx
Improving Public Health by Understanding Diversity in Diet, Brain and Body Interactions

NIH Guidelines: N/A

Approved by Biosafety Officer

- One person's BBP training is expired

R R1701 [REDACTED] Reviewer: vx
Mack Laboratory cancer research; cell line and in vivo xenograft studies

NIH Guidelines: N/A

Approved by Biosafety Officer

R R1710 Giulivi, Cecilia Reviewer: jb
Assessment of mitochondrial dysfunction in human tissues

NIH Guidelines: N/A

Approved by Biosafety Officer

- "If these of the solicitor is needed, we will follow the SOP..." fix sentence
- Work with blood should be done in BSC
- Need to clarify the different protocols set in place for an exposure

R R1713 Carvajal-Carmona, Luis Reviewer: az
Genetics and genomics of cancer

NIH Guidelines: N/A

Approved by Biosafety Officer

- Cannot require lab members to disclose proof of Hepatitis B vaccination

R **R1714** [REDACTED] Reviewer: vx
1) Impact of dietary lipids on lipid metabolism; and 2) Investigating the stability, variability and mechanism of incorporation of lipid mediators into eccrine sweat
 NIH Guidelines: N/A
 Approved by Biosafety Officer

- Ask: can they obtain sheep tissue shown to be negative for Q fever

N **R2473** McPherson, John Reviewer: jb
Understanding the 3D Structure of the Cancer Genome
 NIH Guidelines: N/A
 Approved by Biosafety Officer

BSL-1

R **R1676** Bradford, Kent Reviewer: az
Identification, isolation and characterization genes involved in regulation of thermoinhibition and flowering time in lettuce
 NIH Guidelines: III E2a, III F8, App C-II
 Approved (8-0-0)

R **R1727** Lagarias, J Reviewer: az
Molecular Mechanisms of Phytochrome and CBCR Signaling
 NIH Guidelines: III E2a, III F8, App C-II, App C-III
 Approved (8-0-0)

- Correction: *A. tumefaciens* strain 3101 is a disarmed strain

N **R2513** Ramirez, Santiago Reviewer: vx
Investigation of the genetic and biochemical mechanisms that regulate floral scent emission, scent variation and pollinator specificity in plant-pollinator mutualisms
 NIH Guidelines: III E, III F8, App C-II
 Approved (8-0-0)

N **R2525** Maloof, Julin Reviewer: vx
Mechanisms of growth and defense trade-off in tomato
 NIH Guidelines: III E2a
 Approved (8-0-0)

- Inform greenhouse manager about the work

N **R2526** Diaz, Samuel Reviewer: vx
The impact of coinfection, reassortment, and virus-virus interactions on RNA phage (Cystoviridae) evolution
 NIH Guidelines: N/A

Approved (8-0-0)

B. Amendments

BSL-1

R1820 Melotto, Maeli Reviewer: jb
Molecular Biology of Human Bacterial Pathogen-Plant and Phytopathogenic
Fungi-Plant Interactions
NIH Guidelines: IIID1a, IIID2a, IIIE2a
Add: Plant fungal pathogen, *Magnaporthe oryzae*
Approved (8-0-0)

R2056 Mills, David Reviewer: vx
Selective enrichment of gut bacteria by oligosaccharides
NIH Guidelines: IIIF8, App C-II
Add: *Citrobacterium rodentium*-DBS100
Approved (8-0-0)

R2460 Winey, Mark Reviewer: az
Uncovering the role of structural components of centrioles, spindle pole
bodies, basal bodies, and cilia
NIH Guidelines: IIID3b, IIIE1a, IIIF8, App C-III
Add: Protozoan *Tetrahymena thermophile* and budding yeast *Saccharomyces
cerevisiae*
Approved (8-0-0)

C. Storage only:

R **R1691** [REDACTED] Reviewer: jb
Storage Only: Applicability of Choroid Plexus Cells for the Repopulation of
Hair Cell Depleted Cochlear Sensory Epithelium in the Primate Model
NIH Guidelines: N/A
Approved (8-0-0)

R **R1705** [REDACTED] Reviewer: az
Storage Only: Transient manipulation of nonhuman primate brain function
using DREADDs
NIH Guidelines: IIID4
Approved (8-0-0)

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

E. Terminated BUAs:

R1477 Bauer, Gerhard Reviewer: pb
Gene therapy for HIV/AIDS
Exp date: 7/21/2017

F. Extension of old BUAs:

R R1678

Reviewer: vx

Leukemia stem cells ligand screening/Bladder cancer ligand screening, imaging/Personalized therapy in NSG mice carrying PDX (new title)

NIH Guidelines: IIID3b, IIID4a, IIIE, IIIF8, App C-II

Approved (8-0-0)

One month extension for the existing BUA (new expiration date is 9/30/2017)

V. **Discussion Items:** None

VI. **Information Items:** None

VII. **IBC Training:** None

VIII. **BSL-3 Laboratory Information**

a. ■ BSL-3 Annual Recertification – Schiano

Approved (8-0-0)

i. Tests show that there are no airflow reversals and that the facility performs well under failure scenarios

b. Sharps injuries in BSL-3 – Schiano

Approved (8-0-0)

i. Incident 1

- a. Between animal necropsies on Saint Louis Encephalitis Virus-infected mice, a researcher got a needle stick injury (clean needle) while trying to aspirate saline from a bag for a perfusion
- b. Gloves potentially contaminated from necropsy of previous animal
- c. After first aid, consulted with HCFO and OHS – office visit isn't necessary, risk is minimal
- d. No longer using this method – will draw saline from container using a needleless syringe then screw a capped needle onto the syringe

ii. Incident 2

- a. A researcher was bitten by a mouse that had been experimentally infected with Zika Virus
- b. The researcher noted that the gloves (2 layers) were not punctured, and the skin was not broken
- c. They contacted HCFO and OHS – the physician indicated that since the gloves were not broken, exposure likely didn't occur and no office visit was necessary
- d. No changes in procedures were identified that could have necessarily prevented this incident

IX. **Notifications:** None

X. **Subcommittee Topics:** None

Adjournment: 5:01 pm

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

Minutes

Nov 27, 2017 (3:05-5:15pm)

Hoagland Hall, Rm 130

NOTE: Next IBC meeting: 12/18/2017

In attendance:

Renee Tsois	Voting Member, IBC Chair, MED: Med. Micro. & Immunology
Elizabeth Maga	Voting Member, Vice IBC Chair, Animal Science
Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Fred Jacobsen	Voting Member, Public Member
Nicole McCowan	Voting Member, Campus Veterinary Services
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:

Angela Gelli	Voting Member, MED: Pharmacology
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
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
Karen McDonald	Voting Member, Chemical Engineering
Karega Paisley	Voting Member, Alternate, Occupational Health Services
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDCMC Employee Health Services

Guests:

	Student Employee, EH&S
	Student Employee, EH&S
Bennett Penn	Med: Medical Microbiology & Immunology

Call to Order: A *quorum* was established with 8 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:05 pm by Renee Tsolis, IBC Chair.

I. Review of past IBC meeting minutes:

Oct 23, 2017

(8-0-0)

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

HGT

N C2555

Giermasz, Adam

Reviewer: pb

(BMN 270-302) A Phase 3 Open-Label, Single-Arm Study To Evaluate The Efficacy and Safety of BMN 270, an Adeno-Associated Virus Vector-Mediated Gene Transfer of Human Factor VIII at a dose of 4E13 vg/kg in Hemophilia A Patients with Residual FVIII Levels \leq 1 IU/dL Receiving Prophylactic FVIII Infusions

NIH Guidelines: III-C

Approved (6-0-2) Barruel and Maga abstained

- Very similar to this PI's other BUAs in the past, the difference is reduced dosage

BSL2

R R1739

Ralston, Katherine

Reviewer: jb

Role of amoebic trophocytosis in cell killing and tissue invasion by *Entamoeba histolytica*

NIH Guidelines: IIID1a, IIID2, IIIF8, App C-VII

Approved (8-0-0)

R R1747

Vogel, Christoph

Reviewer: vx

Ah Receptor regulated gene expression

NIH Guidelines: IIIE1, IIIF1, IIIF8, App C-II, CVIII

Approved (8-0-0)

R R1767

Zerbe, Philipp

Reviewer: jb

Investigating Plant Metabolic Diversity For Human Health And Bioproducts

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

Approved (8-0-0)

- Possible risk of Aflatoxin production by *A. flavus* –clarify what strain the group will work with and what growth conditions they will employ to

avoid toxin production since it is not required for the intended experiment.

- R **R1772** Harper, Richart Reviewer: vx
Mechanisms of Airway Epithelial Innate Immunity
NIH Guidelines: III E, IIIF8, App C-II, C-VII
Approved (8-0-0)
- R **R1786** [REDACTED] Reviewer: vx
Studies in Kidney Cancer and Polycystic Kidney Disease
NIH Guidelines: IIID4a, III E, IIIF8, App C-II
Approved (8-0-0)
- R **R1795** Boyd, Simeon Reviewer: jb
Genetic analysis of craniosynostosis
NIH Guidelines: III E1, IIIF8, App C-II
Approved (8-0-0)
 - PI needs training refresher courses.
- N **R2535** [REDACTED] Reviewer: az
Investigating the Roles of Metals in the Endocrine System and Endocrine Disorders
NIH Guidelines: III E1a, IIIF8, App C-II
Conditionally approved (8-0-0)
 - Request IACUC protocol and animal housing information
- N **R2538** Schivo, Michael Reviewer: vx
Mechanisms of Airway Epithelial Cell Volatile Compound Emanations
NIH Guidelines: N/A
Approved (8-0-0)
 - Recertification of BSC is needed
- N **R2542** [REDACTED] Reviewer: jb
Studying vomocytosis of Cryptococcal fungi from phagocytic cells
NIH Guidelines: N/A
Approved (8-0-0) Belcourt stepped out, returned before voting took place
 - Clarify whether pathogens are used in mice- housing locations may need to be changed.
 - Ask PI to streak plate frozen cultures in the BSC rather than bench top, precedent with this microorganism.
 - Change “sterilize” to disinfect or decontaminate.
- N **R2544** Satake, Noriko Reviewer: az
Cancer (stem cell) targeted therapy
NIH Guidelines: IIID3b, III E1a, IIIF8, App-CII
Conditionally approved (8-0-0)

- Confirm SCRO approval for the use of human stem cells
- Clarify how the human cord blood is being used
- Clarify which procedures are done on bench and which in the BSC

BSL1

R **R1479** Kliebenstein, Daniel Reviewer: jb

Quantitative genomics of plant metabolism and pathogen interactions

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

Approved (8-0-0)

- Re-word that clean bench will not protect employees.
- Correction to material selection (room number)
- rDNA training is outdated for lab personnel

R **R1741** [REDACTED] Reviewer: vx

Effects of infant formula with bovine osteopontin on infant growth, health and immune function

NIH Guidelines: N/A

Approved (8-0-0)

R **R1770** Subbarao, Krishnamurthy Reviewer: jb

Studies of plant pathogenic fungi, including *Verticillium*, *Colletotrichum* and *Botryosphaeria*.

NIH Guidelines: N/A

Approved (8-0-0)

- Other PI names are not required in BUA summary, can be removed

R **R1796** Browne, Greg Reviewer: vx

Etiology and management of soilborne diseases of perennial fruit and nut crops

NIH Guidelines: IIIF8, App-CII

Conditionally approved (8-0-0)

- Describe field work with plant pathogens

B. Amendments:

BSL3

R1863 [REDACTED] Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: NA

Add: Use of human plasma for ZIKV infection of NHPs

Approved (8-0-0)

R2514 Penn, Bennett Reviewer: cs

Cellular Immune Response to *Mycobacteria*

NIH Guidelines: IIID1a, IIID1b, IIID2a, IIID3a, IIIIE1, IIIF8

Add: Locations, BSL-3 and recombinant work with virulent *M. tuberculosis*

Approved (8-0-0)

- PI answered IBC questions during the meeting
- The lab will use secondary containers and transportation precautions to reduce likelihood of spill outside containment
- IBC asked about potential inhalation hazard posed by decontamination agent (vesphene); lab will mitigate by avoiding using near the PAPR air intake
- Inactivation methods must be validated before materials can be used at a lower containment level

BSL2

R1627

Reviewer: jb

Production of transgenic and chimeric large-animals as medical models

NIH Guidelines: IIID4a

Add: New human cell lines introduced to animal fetus

Conditionally approved (7-0-1), Maga abstained

- Provide additional experimental details on the procedure of introducing the cord blood to the sheep.
- Confirm that the sheep will be incinerated at the end of the study and not wind up in the food chain.
- Confirm that animal housing will provide adequate protection from predators.

R1686

Reviewer: jb

Protective immunity against typhoid; CD4 T cell responses to *Chlamydia*;

Development of a model to visualize CD4 T cell responses to non-pathogenic *E. coli*

NIH Guidelines: IIID1a, IIID2a, IIID4b, IIE3

Add: Change in containment practices during infected mouse necropsies

Approved (8-0-0)

- Confirm that wild caught and pet store mice will not be necropsied at this facility.
- Clarify the disinfection procedures between users of the shared space.
- Generalize PPE wording so users have flexible splash protection measures to use during necropsy.

R1893

Reviewer: az

Viral pathogenesis of newly discovered veterinary viruses

NIH Guidelines: IIID1a

Add: Feline Calicivirus (storage only), Animal primary/established cell lines

Remove: West Nile and Dengue viruses

Approved (8-0-0)

R2084

Reviewer: jb

Retinoic acid, its receptors, and the liver

NIH Guidelines: IIID2a, IIIE3a
Add: Orthotopic xenograft model
Approved (7-0-0) Belcourt stepped out

BSL1

R1962 [REDACTED] Reviewer: vx
Effects of pesticides on susceptibility to pathogen exposure in Japanese Medaka (*Oryzias latipes*)
NIH Guidelines: IIIE, IIIF8, App C-II
Add: Fish and fish pathogen, *Edwardsiella piscicida*
Approved (8-0-0) Belcourt returned

C. Storage only:

R R1660 [REDACTED] Reviewer: az
STORAGE ONLY: Infectious diseases of dogs and cats and zoonotic bloodborne bacterial infections
NIH Guidelines: N/A
Approved (8-0-0)

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

E. Terminated BUAs:

R1749 Pesavento, Patricia Reviewer: az
FCV viral pathogenesis in cell culture systems
NIH Guidelines: N/A

R1750 [REDACTED] Reviewer: jb
Making a construct of an inducible deletion of the mouse TSPO gene using the cd11b promoter
Exp date: 11/17/2017

R1756 Revzin, Alexander Reviewer: vx
Novel microsystems for cell cultivation and analysis
Exp date: 12/15/2017

R1764 McRoberts, Neil Reviewer: az
Quantitative Studies in Biology and Epidemiology of Plant Pathogens
Exp date: 11/17/2017

R2358 Chomel, Bruno Reviewer: jb
Dairy Food Safety Lab
Exp date: 11/30/2017

F. Extension of old BUAs:

R **R1625**

Cullor, James

Reviewer: jb

Dairy Food Safety Lab

NIH Guidelines: N/A

3 months while they work in Africa

Approved (8-0-0)

V. Discussion Items:

1. Discussion of campus wide BBP-ECP approval (Baugh and Barruel)
 - Proposal will be sent out next week by Jim for approval by IBC
2. UC Davis After-Hours Management of Biological Exposures (Belcourt)
 - Suggestion: Cards with contact information in the case of biological exposure

VI. Information Items:

VII. IBC Training: None

VIII. BSL3 Laboratory Information

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 5:15 pm

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

Minutes

Oct 23, 2017 (3:00-5:04 pm)

Hoagland Hall, Rm 130

NOTE: Next IBC meeting: 11/27/2017

In attendance:

Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Fred Jacobsen	Voting Member, Public Member
Johan Leveau	Voting Member, Alternate, Plant Pathology
Elizabeth Maga	Voting Member, Animal Science
Karen McDonald	Voting Member, Chemical Engineering
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:

Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Nicole McCowan	Voting Member, Campus Veterinary Services
Karega Paisley	Voting Member, Alternate, Occupational Health Services
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services

Guests:

	Student Employee, EH&S
	Student Employee, EH&S
	California National Primate Research Center
Christopher Wallis	California National Primate Research Center Air Quality Research Center

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 Angela Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

September 25, 2017

Approved (5-0-3) Gelli, McDonald, Najita abstained.

II. Announcements: None

III. Old Business:

Tabled at the September 25, 2017 Meeting

R2435

Reviewer: az

Modeling human nervous system disorders and treatment methods

NIH Guidelines: IID4a

Add: replication-deficient AAV and HSV use in macaques; Handling unfixed brain tissue on bench top behind a splash shield

Approved (8-0-0)

- Add text to the "Risk Assessment" section stating that there are no confirmed cases where B virus is transmitted through aerosol, and likelihood of a viremic state in the blood is very low.
- Work Surface Safeguard- Install plexiglass partition at the back of the bench to limit possible contamination of adjacent bench

BUA Conditionally Approved at the September 25, 2017 Meeting

R R1709

Reviewer: jb

Cryo-Imaging Fluorescent Influenza Virus

NIH Guidelines: IID1a, IID4a

Approved (8-0-0)

- Industrial Hygeine analysis of cutting device revealed that no aerosols generated during processing
- Blade is permanent and stationary, the mounted tissue moves into the blade
- Low risk of injury during cleaning of blade, SOP in place for the process

IV. New Business:

A. New and renewal BUAs for review:

HGT

N C2540

Giermasz, Adam

Reviewer: pb

A Phase 3 Open-Label, Single-Arm Study To Evaluate The Efficacy and Safety of [REDACTED] an Adeno-Associated Virus Vector-Mediated Gene Transfer of Human Factor VIII in Hemophilia A Patients with Residual FVIII Levels \leq 1 IU/dL Receiving Prophylactic FVIII Infusions

NIH Guidelines: III-C

Leveau left meeting (7 voting members)

Approved (6-0-1) Barruel abstained

- Clarify PPE and experimental procedures

BSL3

R R1765

Godfrey, Kristine

Reviewer: cs

Effects of mixed infections of plant pathogens on detection of HLB using two early detection methods

NIH Guidelines: N/A

Approved (8-0-0) Leveau present at meeting (8 voting members)

- Add additional information regarding infected bud sticks.
- Missing word in BUA: “cut-resistant gloves” instead of “cut gloves”

BSL2

R R1694

Reviewer: jb

[REDACTED] Water and Foodborne Zoonotic Disease Laboratory; Expanding the utility of social network analysis for multilevel health outcomes; Western Center for Food Safety Laboratory; WIFSS

NIH Guidelines: N/A

Approved (8-0-0)

- Clarifying that sharps will be disposed in a sharps container.
- Update training records for a number of personnel

R R1734

Fiehn, Oliver

Reviewer: vx

Metabolomics Core Facility with Metabolomics Research

NIH Guidelines: N/A

Approved (8-0-0)

R R1757

Bauer, Gerhard

Reviewer: pb

GMP grade AAV vector manufacturing

NIH Guidelines: IIID3e, IIIE1

Approved (6-0-1) Leveau left meeting (7 voting members), Barruel abstained

R R1781

Sun, Gang

Reviewer: vx

Antimicrobial textiles and polymers

NIH Guidelines: N/A

Approvaed (7-0-0)

N R2466

Lonnerdal, Bo

Reviewer: vx

Determining whether MFGM supplementation can attenuate neonatal *Escherichia coli* Infection

NIH Guidelines: N/A

Approved (7-0-0)

- Update BBP training

N R2482

Yang, Xiang

Reviewer: jb

Meat Safety Research

NIH Guidelines: N/A

Approved (7-0-0)

- All personnel in contact with listed materials require PPE
- All work with E. coli O517 must be done in BSC
- Clarify quantity of meat materials used in a given experiment
- Include specific information on propagation of various materials
- Clarify waste stream processes and ensure that incompatible mixed waste is not generated

N R2541

Magdesian, Gary

Reviewer: az

Generation of a bacterial library related to foal septicemia

NIH Guidelines: N/A

Approved (7-0-0)

N R2547

Evaluation of human stem cells in murine models of retinopathy

NIH Guidelines: IID1a, IID4a

Approved (7-0-0)

- Remove collaborator names from the BUA summary

BBP only

R R1702

Gamete cryopreservation and micromanipulation of the rhesus macaque

NIH Guidelines: N/A

Approved by Biosafety Officer

- BBP Only, no concerns

R R1755

Muralidharan, Subramania Reviewer: az

Nanomedicine Nature of Homeopathic Medicines for Cancer

NIH Guidelines: N/A

Approved by Biosafety Officer

B. Amendments:

BSL2

R1505

Bauer, Gerhard

Reviewer: pb

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

NIH Guidelines: N/A

Add: Bring 14 day sterility test up to date with CFR 21 and CFR 610.12; removed *Micrococcus luteus*; added *Pseudomonas aeruginosa*, *Aspergillus brasiliensis*, *Bacillus subtilis*, and *Staphylococcus aureus*.

Approved (6-0-1) Barruel abstained

- Clarify "max volume" per container

R1688

[REDACTED]

Reviewer: jb

Neural-immune and Brain-gut interactions

NIH Guidelines: IIID4a, IIIE1

Add: perform injection of mice with an attenuated PRV

Approved (7-0-0)

- Confirm that injection will be done in a BSC to prevent potential aerosol release

R1863

[REDACTED]

Reviewer: cs

Flavivirus arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: NA

Add: Ocular exams to ZIKV-infected rhesus macaques in quarantine

Approved (7-0-0)

- Describe how exam equipment is decontaminated after use

R2096

[REDACTED]

Reviewer: cs

HIV and SIV pathogenesis

NIH Guidelines: NA

Add: Zika Virus, human primary cells, and several cell lines

Approved (7-0-0)

- Replace PI's name on BUA with BUA number

R2205

[REDACTED]

Reviewer: vx

Molecular mechanisms of cardiac arrhythmias and heart failure

NIH Guidelines: IIID3a, IIID3b, IIID4a, IIID4b, IIIF8, App C-II

Add: infect mice with either adenoviral or lentiviral vectors to mice instead of both

Approved (7-0-0)

C. Storage only: None

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

N **R2479**

Brian Bennett

Reviewer: vx

Systems Genetic Approaches to Atherosclerosis

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

Conditional Approval Date: 9/25/2017

E. Terminated BUAs:

R1638	Klasing, Kirk	Reviewer: vx
<u>Immunoglobulin Knockout Leghorn Breeding Colony: maintained for research</u>		
<i>Exp date: 4/21/2017</i>		
R1690	Wilson, William	Reviewer: az
<u>Generation of a bacterial library related to foal septicemia</u>		
<i>Exp date: 10/20/2017</i>		
R1718	Miller, Lisa	Reviewer: az
<u>Project Title: Mucosal immunity to RSV infection</u>		
<i>Exp date: 10/20/2017</i>		
R1762	McDonald, Karen	Reviewer: az
<u>Expression of heterologous proteins in lemnoideae (duckweed)</u>		
<i>Exp date: 10/20/2017</i>		
R1788	XXXXXXXXXX	Reviewer: vx
<u>Pre-clinical evaluation of intratumoral pIL-12 + electroporation in dogs with spontaneous soft tissue sarcoma</u>		
<i>Exp date: 11/17/2017</i>		

F. Extension of old BUAs: None

V. Discussion Items:

- a. Gelli is stepping down as IBC Chair
 - Tsolis will act as new IBC Chair

VI. Information Items:

- a. Select Agent Form 3 Report Summary – Barruel/Schiano
 - An incident occurred where samples of *B. abortus* may have been incompletely inactivated before removal from the BSL-3 lab to the BSL-2 lab for downstream analysis and subsequent disposal into medical waste containers.
 - No personnel have shown symptoms to this potential exposure.
 - This has been properly reported to the CDC DSAT Form 3 group.
 - Notification of medical waste vendor and public health officials has occurred.
 - Since the samples contained recombinant organisms, a report will also be filed with NIH-OSP.
- b. BUAs for PIs with USDA permits for transgenic plants – Zweifel
 - The transgenic plants are created in a different institution but are planted in a UC Davis field site (under permit by USDA).
 - The NIH Guidelines states that, “Once approvals, or other applicable clearances, have been obtained from a Federal agency other than NIH (whether the experiment is referred to that agency by NIH or sent

directly there by the submitter), the experiment may proceed without the necessity for NIH review or approval.”

- The IBC concluded that there is no need to submit BUAs for these situations.
- c. Animal Containment for human material that is not expected to leave the animal- Zweifel
- IBC decided that Vivarium Hazard Safety Sheets (VHSSs) for these animals are not applicable in their current form since the approved facilities do not fall under strict “Animal Biosafety Level” guidelines.
 - A new VHSS template will be drafted to reflect relevant information
- d. PPE in public spaces – Baugh
- An EHS fact sheet about the policy is being written in order to convey PPE expectations in public spaces
- e. Campus-wide BBP-ECP – Baugh
- A campus wide Bloodborne Pathogen Exposure Control Plan for the research staff is written and will need to be approved by the IBC before it is released to the campus community.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 5:04 pm

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

Minutes

June 26, 2017 (3:03 PM – 4:36 PM)

Hoagland Hall, Rm 130

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
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

Excused:

Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Angela Gelli	Voting Member, IBC Chair, MED: Pharmacology
Johan Leveau	Voting Member, Alternate, Plant Pathology
Elizabeth Maga	Voting Member, Animal Science
Nicole McCowan	Voting Member, Campus Veterinary Services
Karen McDonald	Voting Member, Chemical Engineering
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Karega Paisley	Voting Member, Alternate, Occupational Health Services
Renee Tsois	Voting Member, IBC Vice-Chair, MED: Med. Micro. & Immunology
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDCM Employee Health Services
Adrienne Zweifel	Associate Biosafety Officer, EH&S

Guests:

██████████	Student Employee, EH&S
██████████	Student Employee, EH&S

Call to Order: A *quorum* was established with 7 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 3:03 pm by Ioannis Stergiopoulos, acting IBC Chair. Committee voted to have Stergiopoulos chair meeting

Approved (6-0-1 Stergiopoulos abstained)

I. Review of past IBC meeting minutes:

May 22, 2017

Approved (6-0-1 Belcourt abstained)

May 31, 2017

Approved (5-0-2 Najita and Jacobsen abstained)

II. Announcements: Introduction of student employees, [REDACTED]

III. Old Business:

BUAs tabled at the May 22, 2017 IBC meeting:

R R1607

Reviewer: vx

Community ecology of pathogens

NIH Guidelines: N/A

Gershwin joined meeting (8 voting members)

Approved (8-0-0)

- o Concern for ticks, not sure if there are any on campus other than Putah Creek

IV. New Business:

A. New and renewal BUAs for review:

HGT

R C1960

Ducore, Jonathan

Reviewer: pb

Gene-therapy, Open-Label, Dose-escalation study of [REDACTED] [adeno-associated viral vector with human factor IX gene] in subjects with hemophilia B

B

NIH Guidelines: IIIC, IIID1

Approved (7-0-1 Barruel abstained)

R C2195

Ducore, Jonathan

Reviewer: pb

A phase 1/2 clinical trial of adeno-associated virus serotype 8 factor IX (FIX) gene therapy in adults with hemophilia B

NIH Guidelines: IIIC

Approved (7-0-1 Barruel abstained)

- o Add BBP safety precautions description to risk assessment

BSL-2

R R1606

Reviewer: az

Cultivation, characterization and immunopathogenesis of protozoal parasites affecting animals and humans

NIH Guidelines: IIID, IIIE, IIIF

Conditionally approved (8-0-0)

- Training Needed
- Discuss permit requirements for transport of materials
- Discuss the disposal of animal bedding
- Risk Assessment- more information on genes being cloned

R R1628 [REDACTED] Reviewer: jb

Cellular and molecular mechanisms of synapse formation and elimination

NIH Guidelines: IIID1a, IIID2a, IIIF8 (App C-II)

Approved (8-0-0)

- Need to update IACUC protocol number
- Add sentence clarifying experiments involving animals

R R1664 [REDACTED] Reviewer: az

Characterizing Optical Biosensors in Acute Brain Slices

NIH Guidelines: IIID4a, IIIE1

Approved (8-0-0)

- Double check completeness of "Experimental Procedures" section

R R1665 [REDACTED] Reviewer: vx

The role of IL-23/IL-17 axis in immune bone loss

NIH Guidelines: IIID4a, IIIE

Approved (8-0-0)

N R1885 [REDACTED] Reviewer: vx

Analysis of Amino Acid Concentrations in Urine from Dogs with Leptospirosis

NIH Guidelines: N/A

Approved (8-0-0) Belcourt stepped out momentarily but returned for voting

- Remove PI name from experimental procedures.
- Add "followed by 70% ethanol" after 10% bleach for decontamination of biosafety cabinet surface.
- Solid medical waste should go to Vet Med Medical waste accumulation site.
- Change EH&S "regulations" to "guidelines"

BBP only

N R2507 Caudill, Camelia Reviewer: jb

Parental Support and Children's Stress Responses

NIH Guidelines: N/A

BSO Approved

BSL-1

R R1641 Casteel, Clare Reviewer: az

The impact of plant viruses on aphid-plant interactions

NIH Guidelines: III E

Approved (8-0-0)

- Experimental procedures needs to be clarified
- Change “greenhouse” to “growth chamber”

R R1667

Tian, Li

Reviewer: az

Terpenoids and polyphenols: Understanding and manipulating two major phytonutrient biosynthetic pathways in plants

NIH Guidelines: III E, III F8, App CII/CIII

Approved (8-0-0)

- 1 hour autoclave run time for soils in 1 liter pots (as is), or 30 min if soil spread on a tray

B. Amendments:

BSL-2

R1710

[REDACTED]

Reviewer: jb

Assessment of mitochondrial dysfunction in human tissues

NIH Guidelines: III F

Add: human placental samples, human amniotic fluids, and mouse work

Approved (8-0-0)

- Clarify specific sources of human samples

R1723

[REDACTED]

Reviewer: vx

DNA replication and repair in B and T lymphocytes

NIH Guidelines: III D3a, III D3b, III E, III F8, App C-II

Add: lentiviral vector and CRISPR/Cas9

Approved (8-0-0)

R1939

[REDACTED]

Reviewer: vx

Development of a Non-Human Primate Model as a Tool to Evaluate Human Stem Cell-Derived Replacement Therapies for Motor Neuron Injuries and Degenerative Diseases

NIH Guidelines: III D4b

Add: New locations. Change of location for preparing human cells from UCLA to CNPRC

Approved (8-0-0)

R2042

[REDACTED]

Reviewer: vx

Skin wound healing

NIH Guidelines: N/A

Add: bacterium *Pseudomonas aeruginosa* and its use in mice

Approved (8-0-0)

- Clarify rooms mice infected with this *P. aeruginosa* will not be housed in GBSF. Instead use the vivarium in Tupper Hall (coordinate with Animal Health Monitoring Coordinator).

- Mice infected with *P. aeruginosa* will be transferred to a clean cage before transport to VM3B for behavioral studies.
- Add “Cages used for the mice infected with *P. aeruginosa* will be autoclaved.”

R2096

Reviewer: cs

HIV and SIV pathogenesis

NIH Guidelines: III E

Add: Influenza A Virus, A/California/07/2009 (H1N1)pdm09

Approved (8-0-0)

BSL-1

R1741

Reviewer: vx

Effect of infant formula with bovine osteopontin on infant growth, health and immune function

NIH Guidelines: N/A

Add: bacterium *Citrobacter rodentium* and its use in mice

Approved (8-0-0)

- Add “Lab coats used for handling the infected mice will stay in the mouse housing room until the lab coats are sent out for laundry in a close bag. After handling the infected mice, the staff will not enter other rodent rooms without a shower and a full change of clothes.”

C. Storage only:

R R1656

Murphy, Brian

Reviewer: jb

Storage Only: Mutations in small ruminant lentivirus promoters determine disease outcome

NIH Guidelines: NA

Approved (8-0-0)

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

E. Terminated BUAs: None

V. Discussion Items:

1. Proposed changes to the IBC Internal Operating Procedures.

Approved (8-0-0)

VI. Information Items: None

VII. IBC Training: None

VIII. BSL-3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 4:36 pm

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

Minutes

Dec 18, 2017 (2:02-3:40pm)

Hoagland Hall, Rm 130

NOTE: Next IBC meeting: 01/22/2018

In attendance:

Philip Barruel	Voting Member, Biosafety Officer, EH&S
Roger Belcourt	Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services
Hongwu Chen	Voting Member, MED: Biochemistry & Molecular Medicine
Laurel Gershwin	Voting Member, Veterinary Medicine: Pathology, Microbiology & Immunology
Dennis Hartigan-O'Connor	Voting Member, Medical Microbiology & Immunology
Fred Jacobsen	Voting Member, Public Member
Johan Leveau	Voting Member, Alternate, Plant Pathology
Betty Ma	Voting Member, Alternate, Campus Veterinary Services
Nicole McCowan	Voting Member, Campus Veterinary Services
Karen McDonald	Voting Member, Chemical Engineering
Lyle Najita	Voting Member, Public Member


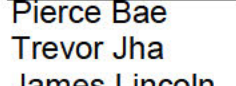
IBC support staff in attendance:

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:

Laurie Brignolo	Voting Member, Alternate, Campus Veterinary Services
Angela Gelli	Voting Member, MED: Pharmacology
Elizabeth Maga	Voting Member, Vice IBC Chair, Animal Science
Karega Paisley	Voting Member, Alternate, Occupational Health Services
Curtis Plotkin	Non-Voting <i>Ex-Officio</i> Member, Director, EH&S
Neil Speth	Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services
Ioannis Stergiopoulos	Voting Member, Alternate, Plant Pathology
Renee Tsois	Voting Member, IBC Chair, MED: Med. Micro. & Immunology

Guests:

	Student Employee, EH&S
	Student Employee, EH&S
Pierce Bae	IT Services
Trevor Jha	IT Services
James Lincoln	Plant Pathology
Gary Pearson	Plant Sciences

Call to Order: A *quorum* was established with 9 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 2:02 pm by Johan Leveau, acting IBC chair. Committee voted to have Leveau chair meeting.
(8-0-1 Leveau abstained)

I. Review of past IBC meeting minutes:

Nov 27, 2017

Belcourt joined meeting (10 voting members)

(8-0-2 Ma and Hartigan-O'Connor abstained)

II. Announcements: New IBC Members

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL3

N R2560

Reviewer: cs

Chikungunya virus studies in rhesus macaques at the CNPRC

NIH Guidelines: N/A

Gershwin joined meeting (11 voting members)

Approved (11-0-0)

- Some trainings are out-of-date
- Inactivation methods will be validated before materials are allowed to be transferred to a lower containment level
- Add to BUA that euthanasia will be done with an injectible agent

BSL2

R R1723

Reviewer: vx

DNA replication and repair in B and T lymphocytes

NIH Guidelines: IIID3a, IIID3b, IIIE, IIIF8, App C-II

Approved (11-0-0)

R R1753

Reviewer: vx

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

NIH Guidelines: IIID3a, IIID3b, IIID4a, IIIE

Approved (11-0-0)

- Verify animal housing location and clarify this information on the BUA

- R **R1776** [REDACTED] Reviewer: jb
Understanding the molecular and cellular mechanisms of host-pathogen interactions
 NIH Guidelines: IID1b, IID2b, IIF8, App C-II
 Approved (11-0-0)
- Clarify information on BUA – expired IACUC protocols have already been renewed
 - Training needs to be updated for a number of personnel
- R **R1811** [REDACTED] Reviewer: vx
Study of neuronal migration during brain development
 NIH Guidelines: IID3b, IID4b, IIE, IIF8, App C-II
 Approved (11-0-0)
- Specify animal housing location
- R **R1821** [REDACTED] Reviewer: vx
MicroRNAs in Retinal Development and Repair
 NIH Guidelines: IID3b, IID3e, IID4a, IIE, IIF8, App C-II
 Approved (11-0-0)
- N **R2439** [REDACTED] Reviewer: jb
Steroid receptors and cell cycle in cancer
 NIH Guidelines: IID
 Approved (11-0-0)
- Remove discussion of chemical safety in project summary
 - Switch nucleic acid section from “Gene Drive” to “Suppress Gene Function”
 - They have 30 days, not 7, to transport their filled sharps containers to their medical waste accumulation site
- N **R2553** Facciotti, Marc Reviewer: az
Molecular phenotyping and engineering of articular cartilage
 NIH Guidelines: IID, IIF1-IIF8
 Approved (11-0-0)
- Clarify the sources of cell lines
 - Verify BBP training
- N **R2564** [REDACTED] Reviewer: az
GPCRs trafficking and drug addiction
 NIH Guidelines: IID, IIE
 Approved (11-0-0)
- Risk Assessment- Add discussion of Sharps/injection hazard risk
 - Specify the construct name for AAV

BBP only

R **R1752** [REDACTED] Reviewer: jb
Rett syndrome and Alzheimer's Disease, Alzheimer's Disease Center and Pediatric Brain Tissue Banks

NIH Guidelines: N/A

Approved by Biosafety Officer

- Remove names in the various sections of BUA, replace with organization name
- Clarify if blood manipulation is done in BSC or lab bench
- Transport box for unfixed NHP tissue needs to have a biohazard symbol (but it doesn't need to be red)
- Personnel have up to 30 days to transport filled sharps containers to their medical waste accumulation site
- Clarified that there is no rDNA work with the *C. elegans*
- Outdated and missing trainings from several personnel

R **R1769** Hodzic, Emir Reviewer: az
Real-Time PCR Research and Diagnostics Core Facility

NIH Guidelines: N/A

Approved by Biosafety Officer

- PI missing BBP training

BSL1

R **R1738** Baldwin, Enoch Reviewer: az
Structure and Regulation of CTP synthetases

NIH Guidelines: III E1, III F4, III F8, App C-II

Approved (11-0-0)

R **R1742** Fan, Zhiliang Reviewer: vx
Cloning and characterization of the cellobiose dehydrogenase from

Neurospora crassa

NIH Guidelines: III D2a, III E, III F8, App C-II

Approved (11-0-0)

- Add sentence to indicate concerns of *Myceliophthora thermophila* and *Klebsiella oxytoca* for immunocompromised people

R **R1771** Harada, John Reviewer: jb
Developmental regulation of plant genes

NIH Guidelines: III E2a

Approved (11-0-0)

- Clarify if transgenic plants (especially soybeans) are used
- Modify BUA to indicate that *A. tumefaciens* is used to shuttle DNA into plants
- Add a max volume of *A. tumefaciens*
- Carts are not considered secondary containers, needs to be changed or clarified by PI of what type of cart is being used

- R **R1773** Lin, Su-Ju Reviewer: vx
Understanding the regulation of NAD⁺ homeostasis and signaling
NIH Guidelines: III E, III F8, App C-II, C-III
Approved (11-0-0)
- N **R2554** Maga, Elizabeth Reviewer: vx
Engineering and optimizing *Lactococcus lactis* to secrete antioxidant enzymes superoxide dismutase and catalase
NIH Guidelines: III E, III F8, App C-II
Approved (11-0-0)
- N **R2558** Taylor, Gail Reviewer: az
Utilizing genome editing to improve the yield, quality and sustainability of crop production
NIH Guidelines: III E1a, III F8, App C-II
Approved (11-0-0)
- Risk Assessment- add wording to acknowledge pest control in greenhouse locations

B. Amendments:

BSL2

R1721 [REDACTED] Reviewer: jb
Molecular ecology of avian influenza viruses in wild birds and mammals
NIH Guidelines: N/A
Add: rhesus macaque respiratory tissues for explant/influenza studies
Approved by Biosafety Officer

R1728 [REDACTED] Reviewer: jb
Cell and animal models of mitochondrial disease
NIH Guidelines: III D1a, III D2a, III F8, App C-II, App C-III
Add: HIV infected human tissue samples
Conditionally Approved (11-0-0)

- More detail needed in procedures with HIV-infected tissues
- Risk is not adequately described (splash protection, BSC, etc)
- Clarify PPE
- IRB exemption notice needs to be added to BUA

R2159 [REDACTED] Reviewer: az
Probing the lipidome in human blood and breast milk
NIH Guidelines: N/A
Add: non-human primate samples
Approved by Biosafety Officer

R2289 Solnick, Jay Reviewer: jb
Pathogenesis of *Helicobacter pylori*
NIH Guidelines: III D1a, III D2a

Add: Changes to laboratory procedures, necropsy location
Approved (10-0-1 Barruel abstained)

R2470 [REDACTED] Reviewer: az
Processing, handling, and storage of NHP blood and CSF samples
NIH Guidelines: N/A
Add: handling of NHP blood and cerebrospinal fluid
Approved by Biosafety Officer

C. Storage only:

R **R1783** Yellowley-Genetos, Clare Reviewer: jb
Storage Only: A role for annexin V in bone cell mechanotransduction
NIH Guidelines: N/A
Approved (11-0-0)

R **R1798** Griffey, Stephen Reviewer: jb
Storage Only: Human infectious agents
NIH Guidelines: N/A
Approved (11-0-0)

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

R **R1796** Browne, Greg Reviewer: vx
Etiology and management of soilborne diseases of perennial fruit and nut crops
NIH Guidelines: III F8, App-CII

N **R2535** Heffern, Marie Anne Reviewer: az
Investigating the Roles of Metals in the Endocrine System and Endocrine Disorders
NIH Guidelines: III E1a, III F8, App C-II

E. Terminated BUAs:

R1528 Zunino, Susan Reviewer: az
Anti-cancer and anti-inflammatory activities of phytochemicals
Exp date: 1/31/2020

R1611 Gaikwad, Nilesh Reviewer: az
Metabolic signatures of human diseases and their modulation using natural compounds
Exp date: 8/31/2018

R1766 Mudryj, Maria Reviewer: jb
E2F/RB pathway in prostate cancer
Exp date: 12/15/17

R1774 Navarro, Lorena Reviewer: mm

Molecular Mechanisms of Bacterial Virulence Factors

Exp date: 12/15/2017

R1787

Inoue, Kentaro

Reviewer: jb

Understanding functions of genes involved in chloroplast biogenesis

Exp date: 12/15/17

R2146

Athanasίου, Kyriacos

Reviewer: az

Engineering articular cartilage using human dermis-derived stem cells and chondrocytes

Exp date: 1/31/2019

F. Extension of old BUAs:

R1760

Gordon, Thomas

Reviewer: az

Plant pathogen etiology, transmission and resistance

NIH Guidelines: IIIE2b, IIIE2a, IIIE

Exp date: 12/31/2017 (need extension until February 2018)

Approved (11-0-0)

V. Discussion Items: None

VI. Information Items:

1. FSAP Inspection (January 23-25, 2018) – Barruel
 - 3 day inspection, 2 labs
 - CDC and USDA will send at least 3 inspectors
2. CDPH Medical Waste inspection (February 7-8, 2018) – Baugh/Barruel
 - Davis campus only
 - Email sent out to all medical waste accumulation site managers
 - List of where they will be going and what order was requested
3. NIH OSP Report – bite from mouse w/ recombinant *Salmonella typhimurium* – Barruel
 - Contacted lab
 - No further questions from NIH

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

1. ██████ BSL-3 Re-certification – Schiano
 - Postponed to next month

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: 3:40 pm