

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

MINUTES

January 26, 2015

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 02/23/2015

Start Time: 3:05 pm

In attendance:

| | |
|-----------------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Renee Tsois | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|---------------------|--|
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Christopher Jenkins | Consultant ,WCG |

Excused:

| | |
|-------------------------|---|
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio Member</i> , Medical Director, SHCS |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests: None

I. Review of past IBC meeting minutes:

Dec 15, 2014 ***APPROVED (8-0-2, SB and EM abstained)***

II. Announcements:

1. Biosafety Office personnel changes - Barruel

EH&S Department is currently in the process to recruit two Associate Biosafety Officers.

2. Medical Waste Management Program Inspection - Barruel

The CDPH inspection on January 21, 2015 went well. The inspection report will come in about a month.

3. Select Agent Inspection - Barruel

The CDC and USDA inspectors will review our campus' Select Agent program. The inspection will Occur from January 27 to 29, 2015.

RT arrived

III. Old Business:

N **R1820** (Tabled at 12/15/14 Mtg) **APPROVED (11-0-0)** Reviewer: mm/pb

IV. New Business

DH arrived

A. New and renewal BUAs for review (see BIO generated minutes for details):

BSL3

R **R1804** (Replacing 0873) **TABLED (12-0-0)** Reviewer: WCG-cj

The IBC voted to extend the expiration date of BUA 0873 for another month. The IBC could not form a risk assessment for the project and requested that PI submit revised BUAs addressing the points listed below for IBC review:

1. Split the BUA into three protocols, based on each virus type (alpha viruses, bunya viruses, and filo viruses)
2. Describe which viruses will be manipulated versus screened
3. Add justification for not using anesthesia on birds

RB arrived

BSL2

R **R1791** (Replacing 0745) **APPROVED (13-0-0)** Reviewer: WCG-rb & cj

N **R1794** **APPROVED (13-0-0)** Reviewer: WCG-jh

R **R1802** (Replacing 0999) **APPROVED (13-0-0)** Reviewer: WCG-cj

R **R1813** (Replacing 1000) **CONDITIONAL (13-0-0)** Reviewer: WCG-jh

IBC requested that PI address the following comments before final approval is granted. PI should submit a revised BUA addressing the comments within a month for final approval.

1. Provide the source of viral vectors
2. Clarify how genes/nucleic acid will be delivered into mice. Will viral vector be used?

R **R1825** (Replacing 0998) **APPROVED (13-0-0)** Reviewer: WCG-jh

N **R1834** **APPROVED (13-0-0)** Reviewer: WCG-cj

BBP only

R **R1801** (Replacing 0997B) **APPROVED (13-0-0)** Reviewer: WCG-cj

N **R1830** **APPROVED (13-0-0)** Reviewer: WCG-cj

N **R1835**

APPROVED (13-0-0)

Reviewer: WCG-cj

BSL1

R **R1789** (Replacing 0680)

APPROVED (13-0-0)

Reviewer: WCG-jh

B. Amendments :

BIO amendment (see BIO generated minutes for details):

R1698

APPROVED (13-0-0)

Reviewer: WCG-rb

Amendments on SmartSite (old form):

0635(A)

Reviewer: vx

Title: Micronutrient absorption, metabolism and status in populations at risk of deficiency

Amendment to add:

1. Human blood (plasma, red blood cells, and/or dried blood spots) from Niger, The Gambia and Lao PDR
2. Human urine from Niger, and The Gambia
3. Human feces from The Gambia

Exp date: 9/17/2015

TABLED (13-0-0)

IBC requested that PI submit a revised BUA addressing the points listed below for IBC review:

1. Is it possible to have the plasma samples from Gambia deactivated before shipping to UC Davis?
2. The IBC questioned if PCR testing can be done with the human plasma samples for filoviruses (including Ebola virus) before the samples are shipped from Gambia to UC Davis.

0801(A)

Reviewer: vx

Title: Transcription responses of mouse olfactory sensory neurons to attenuated vesicular

Amendment to add:

1. Attenuated Vesicular Stomatitis Virus (VSV, lab adapted)

Exp date: 04/15/2016

APPROVED (13-0-0)

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

D. Terminated BUAs:

0869-01

Dickinson, Pete

Reviewer: nld

Title: Convection enhanced delivery (CED) of murine leukemia virus (MLV) cytosine

Exp date: 01/23/2015

V. Discussion Items:

1. IBC Operating Procedures (revised December 2014) - Barruel

The document was updated to include discussion on initial and ongoing training for IBC members, clarify the role of Occupational Health Services Medical Director's regarding the health surveillance of researchers who work with high hazard biological agents.

2. Material Transfer Agreements required for BUAs? - Barruel

The IBC decided that there is no need to see MTAs from researchers when reviewing BUAs.

VI. Information Items:

1. Online training (BSL2 module) to replace current in-person EH&S Biosafety class - Barruel

The online training course will replace the in-person EH&S Biosafety class and will have a three-year refresher requirement.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

End Time: 4:52 pm

Institutional BioSafety Committee

Minutes for 02/23/2015

Final

UC Davis

Environmental Health and Safety

Phone : (530) 752 1493

Fax : (530) 752 4527

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|------------------------------|--------------|-----------------|
| R1621 | CHRISTOPHER POLAGE | MED:PATHOLOGY & LAB MEDICINE | Amend | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title The role of microbes in human health and illness and evaluation of test methods for diagnosis and management of infectious diseases.

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

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|--------------------|--------------------------------------|
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Chris Jenkins for review |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|---------------------------------|--------------|-------------------|
| R1793 | | MED:PATHOLOGY & LAB MEDICINE | New | BSL: 2 ABSL: 2 |

Action: Approved

Review Stage: Completed

Project Title Molecular and cellular studies with infectious agents and serology by multiplex microbead immunoassay

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|---|
| IIID | IIID2 - recombinant proteins in animals |
| IIIE | IIIE - BL21 |
| IIIF | IIIF8 (App CII) - E coli K12 |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------|--------------|-------------------|
| R1863 | | VM: PATHOLOGY MICRO & IMMUN | New | BSL: 3 ABSL: 3 |

Action: Approved

Review Stage: Completed

Project Title Flavivirus arbovirus surveillance, vector competence and host pathogenesis

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|--------------------------------|
| IIID | IIID1b, IIID1a, IIID2a, IIID4a |

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------|--------------|-------------------|
| R1865 | | VM: PATHOLOGY MICRO & IMMUN | New | BSL: 3 ABSL: 3 |

Action: Approved

Review Stage: Completed

Project Title Bunyavirus arbovirus surveillance, vector competence and host pathogenesis

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------|--------------|-------------------|
| R1804 | | VM: PATHOLOGY MICRO & IMMUN | New | BSL: 3 ABSL: 3 |

Action: Approved

Review Stage: Completed

Project Title Alphavirus Arbovirus surveillance, vector competence and host pathogenesis

Motion

| | |
|--------------------|---|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |
| Reviewer | IBC |
| Review date | January 26, 2015 |
| Comments | <p>Tabled (12-0-0)</p> <p>The IBC voted to extend the expiration date of BUA 0873 for another month. The IBC could not form a risk assessment for the project and requested that PI submit revised BUAs addressing the points listed below for IBC review:</p> <ol style="list-style-type: none"> 1) Split the BUA into three protocols, based on each virus type (alpha viruses, bunya viruses, and filo viruses). 2) Describe which viruses will be manipulated versus screened 3) Add justification for not using anesthesia on birds |
| Reviewer | EHS Staff |
| Review date | January 9, 2015 |
| Comments | Assigned to Jenkins, C. for review. |

Applicable NIH Guidelines

| Section | Explanation |
|---------|--------------------------------|
| IIID | IIID1b, IIID1a, IIID2a, IIID4a |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------|--------------|-------------------|
| R1831 | | MED: SURGERY | New | BSL: 2 ABSL: 2 |

Action: Approved

Review Stage: Completed

Project Title Systemic and local inflammation in renal transplantation

Motion

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|--------------------|--------------------------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Chris Jenkins for review |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIID | III-D-3-a |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|----------------------------|--------------|-----------------|
| R1777 | DIASYNOU FIORAVANTE | NEURO PHYSIO & BEHAVIOR | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title The role of PKC in neuronal communication and plasticity

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|--------------------------|
| IIIE | AAV, Risk Group 1 agent. |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------------|--------------|-----------------|
| R1616 | | MED:MEDICAL MICROBIOLOGY & IMM | Amend | BSL: 3 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Mechanisms of infection by intracellular bacterial pathogens

Motion

| | |
|--------------------|--------------------------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Ryan Burnette for review |

Applicable NIH Guidelines

| Section | Explanation |
|---------|---|
| IIID | II-D-1-a Introduction of recombinant or synthetic nucleic acids into Risk Group 2 (RG-2) agents. III-D-1-b Introduction of recombinant or synthetic nucleic acids into Risk Group 3 (RG-3) agents. III-D-2-a Experiments in which DNA from RG- 2, RG- 3 agents, or RG-4 agents is transferred into nonpathogenic prokaryotes or lower eukaryotes. |
| IIIE | IIIE |
| IIIF | IIIF8 App CI, CII |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------------|--------------|-------------------|
| R1842 | | CA ANIMAL HLTH&FOOD SAFETY LAB | New | BSL: 3 ABSL: 2 |

Action: Approved

Review Stage: Completed

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

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIID | IIID1a |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|-----------------------------|--------------|-------------------|
| R1810 | | MED: DIV OF INTERNAL MED | New | BSL: 2 ABSL: 2 |

Action: Approved

Review Stage: Completed

Project Title Understand the immune responses of influenza A infection in mice in association with social stress, air pollutant and allergic inflammation

Motion

| | |
|--------------------|--------------------------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Chris Jenkins for review |

Applicable NIH Guidelines

| Section | Explanation |
|---------|--|
| IIIE | AAV and other biological materials usage falls under Section III-E of the NIH Guidelines |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|-----------------------|--------------|-------------------|
| R1812 | | MED: OPHTHALMOLOGY | New | BSL: 2 ABSL: 1 |

Action: Approved

Review Stage: Completed

Project Title Expression of fluorescently-tagged proteins in the retina

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

| | |
|--------------------|--------------------------------------|
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Chris Jenkins for review |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------------|
| IIID | IIID4a |
| IIIE | IIIE1 (aav), IIIE |

Track 2: EH&S Review Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|----------------------------|--------------|-----------------|
| R1809 | PAMELA LEIN | VM: MOLECULAR BIO SCIENCES | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Establishing Sympathetic Neurons derived from Human Neural Crest Stem Cell

Motion

| | |
|--------------------|--------------------------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Chris Jenkins for review |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 2: EH&S Review Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------|--------------|-----------------|
| R1827 | JULIE LEARY | MOLECULAR & CELLULAR BIO | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Mass spectrometric determination of diagnostic carbohydrate and protein biomarkers for inflammatory diseases

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|------------------------------|--------------|-----------------|
| R1892 | CHUN-YI WU | MED: BIOCHEM & MOLECULAR MED | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title UCD PKPD Bioanalytical Core Facility

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 2: EH&S Review Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------|--------------|-------------------|
| R1843 | | MED: SURGERY | New | BSL: 2 ABSL: 2 |

Action: Approved

Review Stage: Completed

Project Title Generation and evaluation of PDX (patient derived xenografts) models in mice

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|------------|--------------|-----------------|
| R1840 | KAREN BALES | PSYCHOLOGY | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Oxytocin receptor distribution in the human brain

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|-----------------|--------------|-----------------|
| R1841 | JOHAN LEVEAU | PLANT PATHOLOGY | New | BSL: 1 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Biology and ecology of plant-associated bacteria and fungi

Motion

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|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|--|
| IIIE | None of our work falls under Sections III-A, III-B, III-C or III-D, and the NIH Guidelines say: "Experiments not included in Sections III-A, III-B, III-C, III-D, III-F and their subsection are considered in Section III-E." |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|----------------|--------------|------------------|
| R1848 | ALAN BENNETT | PLANT SCIENCES | New | BSL: 1P ABSL: |

Action: Approved

Review Stage: Completed

Project Title Strategies to improve and enhance plant and postharvest quality of ornamental and crop plants

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | February 23, 2015 |
| Comments | Approved (12-0-0) |

| | |
|--------------------|--------------------------------------|
| Reviewer | Biostaff |
| Review date | January 22, 2015 |
| Comments | Assigned to Chris Jenkins for review |

Applicable NIH Guidelines

| Section | Explanation |
|---------|---|
| IIIE | Section III-E-2-a for use of agrobacterium. |

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

MINUTES

Feb 23, 2015

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 03/16/2015

Start Time: 3:03 pm

In attendance:

| | |
|-----------------------|---|
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Renee Tsois | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|---------------------|--|
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Christopher Jenkins | Consultant ,WCG |

Excused:

| | |
|-------------------------|---|
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio Member</i> , Medical Director, SHCS |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests:

| | |
|--------------------|--|
| | None |
| Nicole Drazenovich | Safety & Facilities Coordinator, Center for Comparative Medicine |
| Curtis Plotkin | Director, EH&S Safety Services |
| [REDACTED] | PI Contact, [REDACTED] Lab |

I. Review of past IBC meeting minutes:

January 26, 2015 ***APPROVED (9-0-2, FJ and VL abstained)***

II. Announcements: None

RT arrived

III. Old Business:

- | | | | |
|---|---|--------------------------|------------------|
| R | R1804 (Replace 0873, tabled 1/26/15) | APPROVED (12-0-0) | Reviewer: WCG-cj |
| R | R1863 (Replace 0873, tabled 1/26/15) | APPROVED (12-0-0) | Reviewer: WCG-cj |
| R | R1865 (Replace 0873, tabled 1/26/15) | APPROVED (12-0-0) | Reviewer: WCG-cj |

SmartSite (old form):

0635(A) (tabled 1/23/15) Reviewer: vx

Title: Micronutrient absorption, metabolism and status in populations at risk of deficiency

Amendment to add:

1. Human blood (plasma, red blood cells, and/or dried blood spots) from Niger and Lao PDR
2. Human urine from Niger

Exp date: 9/17/2015

APPROVED (12-0-0)

IV. New Business

A. New and renewal BUAs for review (see BIO generated minutes for details):

BSL3

- | | | | |
|---|-------------------------------|--------------------------|--------------|
| R | R1842 (Replacing 0690) | APPROVED (12-0-0) | Reviewer: vx |
|---|-------------------------------|--------------------------|--------------|

BSL2

- | | | | |
|---|----------------------------------|--------------------------|------------------|
| N | R1777 | APPROVED (12-0-0) | Reviewer: wcg-cj |
| N | R1793 | APPROVED (12-0-0) | Reviewer: vx |
| N | R1810 | APPROVED (12-0-0) | Reviewer: wcg-cj |
| R | R1812 (Replacing 0879-01) | APPROVED (12-0-0) | Reviewer: wcg-jh |
| R | R1831 (Replacing 1001B) | APPROVED (12-0-0) | Reviewer: wcg-cj |

BBP only

- | | | | |
|---|-----------------------------------|--------------------------|------------------|
| R | R1809 (Replacing 0924-02B) | APPROVED (12-0-0) | Reviewer: wcg-jh |
| N | R1827 | APPROVED (12-0-0) | Reviewer: vx |
| N | R1840 | APPROVED (12-0-0) | Reviewer: wcg-jh |
| N | R1843 | APPROVED (12-0-0) | Reviewer: wcg-cj |
| N | R1892 | APPROVED (12-0-0) | Reviewer: wcg-rb |

BSL1

- | | | | |
|---|-------------------------------|--------------------------|------------------|
| R | R1841 (Replacing 0870) | APPROVED (12-0-0) | Reviewer: wcg-rb |
| R | R1848 (Replacing 0415) | APPROVED (12-0-0) | Reviewer: wcg-rb |

VL left

B. Amendments :

BIO amendment (see BIO generated minutes for details):

R1616

APPROVED (11-0-0)

Reviewer: wcg-rb

R1621

APPROVED (11-0-0)

Reviewer: wcg-cj

Amendments on SmartSite (old form): None

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

D. Terminated BUAs: None

V. Discussion Items:

1. IBC voted (11-0-0) to grant an one month extension for BUAs #1002 (Dr. Stergiopoulos) and #0693 (██████████).

VI. Information Items:

1. CDPH Medical Waste Inspection Report - Barruel
CDPH reported several observations in their inspection report. Corrective actions and responses are being provided to CDPH.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

End Time: 5:03 pm

Institutional BioSafety Committee

Minutes for 03/16/2015

Draft

UC Davis

Environmental Health and
Safety

Phone : (530) 752 1493

Fax : (530) 752 4527

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|------------|--------------|-----------------|
| R1859 | DANIEL HWANG | NUTRITION | New | BSL: 2 ABSL: |

Action: Approved**Review Stage:** Completed**Project Title** Low grade inflammation leads to increased risk of insulin resistance and atherosclerosis

Motion

| | |
|--------------------|---|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Conditionally approved (11-0-0). IBC requested that the following comment(s) be addressed before final approval is granted. PI should submit a revised BUA addressing the comments within a month. 1) In section 7 Experimental Procedures, provide a description to state how human blood samples and peripheral blood monocytes will be used, including the procedures to be performed with these human blood samples and cells. Add sentences to provide a risk assessment for using human blood and cells, as well as to state that the controls outlined in the Bloodborne Pathogens Exposure Control Plan will be used. |

Applicable NIH Guidelines

| Section | Explanation |
|---------|--|
| III E | Use plasmid over-express or knock-down gene TLR or NOD in cultured cells |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|-------------------------------|--------------|-----------------|
| R1855 | MICHAEL FERNS | MED:ANESTH & PAIN MEDICINE | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Nicotinic acetylcholine receptors: assembly, trafficking and disease mechanisms

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------------------|
| IIIE | IIIE - E. coli BL21 |
| IIIF | App. CII - E. coli K-12 |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|---------------------------|--------------|-------------------|
| R1833 | | FOOD SCIENCE & TECHNOLOGY | New | BSL: 2 ABSL: 2 |

Action: Approved

Review Stage: Completed

Project Title Bacterial pathogens: Interactions with the host and environmental survival

Motion

| | |
|--------------------|---|
| Reviewer | IBC |
| Review date | March 17, 2015 |
| Comments | Please have all personnel review a CDC MMWR about a researcher death who worked with an attenuated strain of Yersinia pestis (http://www.cdc.gov/mmwr/preview/mmwrhtml/mm6007a1.htm). |
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIID | IIID2a |

Track 3: Subcommittee Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|----------------|--------------|-----------------|
| R1858 | | PRIMATE CENTER | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Primate pathogen research and detection for specific pathogen free and animal model development

Motion

| | |
|--------------------|---|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | <p>Conditionally approved (11-0-0).</p> <p>IBC requested that PI address the following comments before final approval is granted. PI should submit a revised BUA addressing the comments within a month.</p> <p>1) In section 4 Biological Materials, under Human Primary Cells, specify the human fluids and tissues to be used, as well as clarify/explain the words core users (listed as the provider) to indicate if the blood, fluids and tissues are to be brought/shipped in by the users of the Pathogen Detection Laboratory (PDL) or to be collected from the users of the PDL. Additionally, provide an answer to the question regarding IRB number to indicate why an IRB approval is not required for the use of these blood, fluid and tissue samples.</p> <p>2) In section 7 Experimental Procedures, provide a description to state why and how the human blood, fluid and tissue samples will be used, including the procedures to be performed with these human samples.</p> <p>3) In section 7 Infectious Agents, add a sentence to indicate if vaccinations for Hep B and measles will be provide to employees work on the projects.</p> <p>4) The following changes should be made to the BUA (Biosafety staff already made these changes for the PI accordingly):</p> <p>a) Change BSL2 enhanced lab to BSL2 lab throughout section 7.</p> <p>b) In Section 7 - Experimental Procedures, 2nd paragraph, change the word They to Scissors and forceps so that the sentence will read Scissors and forceps are wiped with 70% ethanol</p> <p>c) In Section 7 - Experimental Procedures, paragraph regarding spill, add words to be disposed as medical waste after words paper towels, spill kit absorbent.</p> <p>d) In Section 7 - Experimental Procedures, paragraph regarding PPE, delete the statement about PPE used by the CNPRC animal care staff.</p> |

Applicable NIH Guidelines

Track 3: Subcommittee Update

| Section | Explanation |
|------------|-------------|
| None Apply | |

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|------------------|--------------|-------------------|
| R1874 | | MED: DERMATOLOGY | New | BSL: 2 ABSL: 2 |

Action: Approved

Review Stage: Completed

Project Title Lentivirus production for expression of recombinant growth factors

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------------------------|
| IIID | IIID3a (lenti), IIIE (baculo) |

Track 2: EH&S Review Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|----------------------------|--------------|-----------------|
| R1888 | JONATHAN DUCORE | MED: GENERAL PEDIATRICS | New | BSL: 2 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Use of Open-Label, Multicenter Evaluation of the Long-Term Safety and Efficacy of Recombinant Human Coagulation Factor in the Prevention of Bleeding Episodes in Subjects with Coagulation Disorders

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|--------------------------|-----------------|--------------|-----------------|
| R1881 | IOANNIS STERGIOPOULOS | PLANT PATHOLOGY | New | BSL: 1 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Biology and Evolution of Fungal Diseases on Plants

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIIE | III-E-2 |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------------|--------------|-----------------|
| R1846 | | VM: EQUINE ANALYTICAL CHEM PRG | New | BSL: 1 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Characterization of in vitro drug metabolism in veterinary species

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|------------|-------------|
| None Apply | |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|---------------|--------------|------------------|
| R1849 | LUCA COMAI | PLANT BIOLOGY | New | BSL: 1P ABSL: |

Action: Approved

Review Stage: Completed

Project Title Engineering Centromeres to Produce Haploid Plants

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIIE | III-E-2-a |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|--------------------------------------|--------------|-----------------|
| R1853 | | MED:MEDICAL MICROBIOLOGY & IMM | New | BSL: ABSL: 1 |

Action: Approved

Review Stage: Completed

Project Title Investigation of the biologic function of MeCP2e1

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIIIE | IIIIE3 |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|-----------------------|--------------|------------------|
| R1875 | MICHAEL WALKER | VITICULTURE & ENOLOGY | New | BSL: 1P ABSL: |

Action: Approved

Review Stage: Completed

Project Title Molecular genetic support to optimize the breeding of resistant rootstocks

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIIE | IIIE2a |

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|-------------------------------|--------------|-------------------|
| R1870 | | MED:CELL BIOLOGY & HUMAN ANAT | New | BSL: 1 ABSL: 1 |

Action: Approved

Review Stage: Completed

Project Title Genetics of mouse lens and retina development

Motion

| | |
|--------------------|-------------------|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | Approved (11-0-0) |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIIE | IIIE |

Track 1: EH&S Approval Update

| BUA# | Principal Investigator | Department | Request Type | Biosafety Level |
|-------|------------------------|----------------|--------------|-----------------|
| R1872 | | ANIMAL SCIENCE | New | BSL: 1 ABSL: |

Action: Approved

Review Stage: Completed

Project Title Using siRNAs to Modulate Fibromodulin and Control Tendon Formation

Motion

| | |
|--------------------|--|
| Reviewer | IBC |
| Review date | March 16, 2015 |
| Comments | <p>Approved Conditionally (11-0-0)</p> <ol style="list-style-type: none"> 1. Discuss source of horse cells (i.e. will it be from horses that were clinically ill with pathogens?). 2. Discuss risk of exposure to horse cells. 3. Discuss waste disposal and PPE. |

Applicable NIH Guidelines

| Section | Explanation |
|---------|-------------|
| IIIE | III-E-1 |

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

MINUTES

March 16, 2015

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 04/20/2015

Start Time: 3:05 pm

In attendance:

| | |
|----------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|---------------------|--|
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Christopher Jenkins | Consultant , WCG |

Excused:

| | |
|-------------------------|---|
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio Member</i> , Medical Director, SHCS |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |

Guests:

| | |
|--------------------|--|
| | None |
| Nicole Drazenovich | Safety & Facilities Coordinator, Center for Comparative Medicine |
| George Thompson | PI, Medical Microbiology and Immunology |

I. Review of past IBC meeting minutes:

February 23, 2015 **APPROVED (8-0-0)**

II. Announcements: None

III. Old Business: None

Gelli and Tsolis arrived

IV. New Business

A. New and renewal BUAs for review (see BIO generated agenda for details):

BSL3

None

Ma arrived

BSL2

R **R1833** (Replacing 0693)

APPROVED (11-0-0)

Reviewer: WCG-cj

R **R1855** (Replacing 0775)

Ferns, Michael

APPROVED (11-0-0)

Reviewer: vx

R **R1858** (Replacing 0732-03)

CONDITIONALLY APPROVED (13-0-0)

Reviewer: vx

IBC requested that the following comment(s) be addressed before final approval is granted:

1. Specify the human fluids and tissues to be used, as well as clarify/explain the words “core users” to indicate if the blood, fluids and tissues are to be brought/shipped in by the users of the Pathogen Detection Laboratory (PDL).
2. State/describe why and how the human blood, fluid and tissue samples will be used, including the procedures to be performed with these human samples.
3. State vaccinations for Hep B and measles will be provided to employees who work on the projects.

R **R1859** (Replacing 0692)

Hwang, Daniel

Reviewer: vx

CONDITIONALLY APPROVED (13-0-0)

IBC requested that the following comment(s) be addressed before final approval is granted:

1. Provide a description to state how human blood samples and peripheral blood monocytes will be used, including the procedures to be performed with these human blood samples and cells. Add sentences to provide a risk assessment for using human blood and cells, as well as to state that the controls outlined in the Bloodborne Pathogens Exposure Control Plan will be used.

R **R1874** (Replacing 0773)

APPROVED (11-0-0)

Reviewer: WCG-cj

BBP only

R **R1888** (Replacing 0492-02B)

DuCore, Jonathan

Reviewer: WCG-jh

APPROVED (11-0-0)

BSL1

R **R1846** (Replacing 1004)

[REDACTED]

Reviewer: WCG-jh

APPROVED (11-0-0)

N **R1849**

Comai, Luca

Reviewer: WCG-jh

APPROVED (11-0-0)

R **R1853** (Replacing 0874)

[REDACTED]

Reviewer: WCG-jh

APPROVED (11-0-0)

R **R1870** (Replacing 1003)

Brown, Nadean

Reviewer: WCG-cj

APPROVED (11-0-0)

N **R1872**

[REDACTED]

Reviewer: WCG-jh

CONDITIONALLY APPROVED (11-0-0)

IBC requested that the following comment(s) be addressed before final approval is granted:

1. Discuss the source of horse cells. Will the cells be from horses that were clinically ill with pathogens?
2. Discuss the risk of personnel exposure to horse cells.
3. Discuss waste disposal and PPE to be used.

R **R1875** (Replacing 0109-02)

Walker, Michael

Reviewer: WCG-jh

APPROVED (11-0-0)

R **R1881** (Replacing 1002)

Stergiopoulos, Ioannis

Reviewer:

APPROVED (11-0-0)

B. Amendments :

BIO amendment (None)

Amendments on SmartSite (old form):

BSL3

0235-01(A)

Falk, Bryce

Reviewer: WCG-cj

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

Amendment to add:

1. Cucumber green mottle mosaic virus and research project using this virus

Exp date: 01/28/2016

APPROVED (11-0-0)

0900-03(G)

[REDACTED]

Reviewer: vx

Title: Fungal phenotypic and genotypic features

Amendment to add:

1. Infection of mice, rat, rabbit and guinea pigs with *Coccidioides spp.* or *Aspergillus spp.*

2. *in vitro* blood brain barrier (BBB) system
3. Project using *Aspergillus conidia* and *Coccidioides* spherule/endospores with *in vitro* BBB system

Exp date: 5/21/2015

APPROVED (10-0-0, this BUA was reviewed first)

BSL2

0524(A)

Reviewer: vx

Title: Pathogenesis of *Helicobacter pylori*

Amendment to add:

1. Coinfection of mice with *H. pylori* and *Plasmodium chabaudi*
2. Harvesting tissues and blood from co-infected mice

Exp date: 07/05/2016

APPROVED (11-0-0)

BSL1

1022B(A)

Reviewer: vx

Title: Retinoic acid, its receptors, and the liver

Amendment to add:

1. Project using plasmids px330-ctnnb1 activation, px330-P53 KO and px330-pten KO

Exp date: 11/19/2015

TABLED (11-0-0)

The IBC requested PI to submit a revised BUA amendment to address the comments listed below:

1. Add a paragraph to provide a risk assessment for using the plasmids that carry the genes of interest, including the nature of each gene, the consequence if self-inoculation occurs, and the precautions to be taken to prevent self-inoculation.

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

D. Terminated BUAs:

1005B

Land, Donald

Reviewer: mmm

Title: The influence of collection volume on postmortem methamphetamine concentrations

Exp date: 04/16/2015

V. Discussion Items:

1. Task Force on Biosafety and Biosecurity - Barruel

UC President Napolitano asked the UC Chancellors to do the following:

- Create a High-Containment Laboratory Director position and a campus High-Containment Laboratory Oversight Group if their campus has high-containment facilities
- Conduct an inventory of biohazardous materials

VI. Information Items:

1. ABSO recruitment update - Barruel

Four candidates for the ABSO were interviewed for the two open positions.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

1. J1 and VM3A annual re-verification - Barruel

The annual re-verifications for the J1 and VM3A BSL3 facilities were conducted. Both facilities performed well in the HVAC failure tests. The IBC voted (11-0-0) to approve the operation of these facilities for another year.

IX. Notifications: None

X. Subcommittee Topics: None

End Time: 4:55 pm

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

MINUTES



April 20, 2015

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 05/18/2015

Start Time: 3:05 pm


In attendance:

| | |
|--|---|
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
|  | Voting Member, Campus Veterinary Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio Member</i> , Medical Director, SHCS |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
|  | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| Lyle Najita | Voting Member, Public Member |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|-------------|--|
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
|-------------|--|

Excused:

| | |
|--|---|
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Angela Gelli | Voting Member, Chair, Pharmacology |
|  | Voting Member, (Alternate) Campus Veterinarian |
| | Voting Member, Animal Science |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |

Guests:

| | |
|------------------|--|
| James Baugh | None |
| Adrienne Zweifel | Associate Biosafety Officer, Environmental Health and Safety |

I. Review of past IBC meeting minutes:

March 16, 2015 ***APPROVED (9-0-0, Draper, Bodine and Buhles abstained)***

II. Announcements:

1. Welcome the new Associate Biosafety Officers: James Baugh and Adrienne Zweifel - Barruel

III. Old Business:

BSL1

1022B(C) (Tabled 3/16/14) [REDACTED]

Reviewer: vx

Title: Retinoic acid, its receptors, and the liver

Amendment to add:

1. Project using plasmids *px330-ctnnb1* activation, *px330-P53* KO and *px330-pten* KO

Exp date: 11/19/2015

NIH Guideline sections: III-E

APPROVED (12-0-0)

Tsolis arrived

IV. New Business

A. New and renewal BUAs for review:

BSL3

R **R1905** (Replacing 0776)

DeRiemer, Kathryn

Reviewer: vx

Title: Transmission, virulence and diversification of pathogenic bacteria

NIH Guideline sections: N/A

APPROVED (13-0-0)

BSL2

R **R1758** (Replacing 0769) [REDACTED]

Reviewer: WCG-cj

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

NIH Guideline sections: III-D-4(a), III-D-4(b)

APPROVED (13-0-0)

N **R1828**

Schivo, Michael

Reviewer: WCG-cj

Title: Identifying rhinovirus infection in human breath

CONDITIONALLY APPROVED (13-0-0)

The IBC requested that the following comment(s) be addressed before final approval is granted:

1. Clarify if the rDNA work described in the IRB protocol.
2. Clarify if the vials with ECBs will be opened outside of the BSC.
3. Clarify how samples will be transferred from tubes into analyzer.

- R **R1871** (Replacing 0882) Xu, Lifeng Reviewer: WCG-jh
Title: Molecular mechanisms of telomere maintenance

NIH Guideline sections: III-D
APPROVED (13-0-0)
- R **R1893** (Replacing 0993-02) [REDACTED] Reviewer: WCG-cj
Title: Viral pathogenesis of newly discovered veterinary viruses

NIH Guideline sections: III-D-1-a
APPROVED (13-0-0)
- R **R1902** (Replacing 0884) Weimer, Bart Reviewer: vx
Title: Infection mechanisms for food borne pathogens

NIH Guideline sections: III-D-2-a, III-D-3-a
APPROVED (13-0-0)
- N **R1911** [REDACTED] Reviewer: WCG-cj
Title: Genome Engineering in Cancer using CRISPR/Cas9
CONDITIONALLY APPROVED (13-0-0)
The IBC requested that the following comment(s) be addressed before final approval is granted:
1. Clarify if pig embryos will be allowed to develop into transgenic pigs or just be kept in cell culture.
2. Describe what will be done with the KO pigs.
- N **R1913** Collins, Sean Reviewer: vx
Title: Cellular signal processing in chemotaxis

NIH Guideline sections: III-D-3-b
APPROVED (13-0-0)
- BBP only**
- N **R1847** Huising, Mark Reviewer: WCG-jh
Title: Use of specified pathogen free human pancreatic islet material

NIH Guideline sections: N/A
APPROVED (13-0-0)
- R **R1897** (Replacing 1006B) Silva, Eduardo Reviewer: WCG-jh
Title: Engineering homing of progenitor cells

NIH Guideline sections: N/A
APPROVED (13-0-0)
- N **R1906** O'Donnell, Martha Reviewer: WCG-jh

Title: Engineering homing of progenitor cells

NIH Guideline sections: N/A

APPROVED (13-0-0)

R **R1910** (Replacing 0883) [REDACTED]

Reviewer: vx

Title: Regulation of stem cells neurodegenerative diseases and the Molecular and cellular analysis in Autism, Fragile X and FXTAS.

NIH Guideline sections: N/A

APPROVED (13-0-0)

BSL1

R **R1886** (Replacing 0433) [REDACTED]

Reviewer: WCG-jh

Title: Genes involved in canine disorders (hypoadrenocorticism and epilepsy) and bone elongation

NIH Guideline sections: III-F, Appendix C I, II

APPROVED (13-0-0)

R **R1900** (Replacing 0849-02) [REDACTED]

Reviewer: WCG-cj

Title: Reservoir of feline immunodeficiency virus and pumalenvirus during the asymptomatic phase of infection

NIH Guideline sections: N/A

APPROVED (13-0-0)

R **R1901** (Replacing 0225)

Dandekar, Abhaya

Reviewer: WCG-cj

Title: Functional Analysis of quality and productivity traits in crop

TABLED (13-0-0)

The IBC requested PI to submit a revised BUA amendment to address the comments listed below:

1. Verify if the information on some of the plant pathogens is correct.
2. Clarify which pathogens will be used with which plants.
3. Verify if some of the organisms will require permits.

B. Amendments :

BIO amendment:

BSL2

R1601

[REDACTED]

Reviewer: vx

Title: Human explant model and human blood analysis

Amendment to add:

1. Staphylococcal Enterotoxin
2. White blood cells and lymphoid tissues from non human primate

Exp date: 04/21/2017

NIH Guideline sections: III-F-8, App C-II
APPROVED (13-0-0)

BSL1

R1640

Reviewer: WCG-jh

Title: Genome Engineering in Mammalian Systems
Amendment to add:

1. Adeno-associated Virus Vector
2. Mouse embryonic stem cells and mesenchymal stem cells

Exp date: 05/19/2017

NIH Guideline sections: III-D-4-a, III-E-1
APPROVED (13-0-0)

Amendments on SmartSite (old form):

BSL1

0712(A)

Reviewer: vx

Title: Immune response to intracellular pathogens in horses
Amendment to add:

1. Bacteria *Mannheimia haemolytica*,
Pasteurella multocida and *Trueperella*
2. New person

Exp date: 12/17/2015

NIH Guideline sections: N/A
APPROVED (13-0-0)

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

R **R1760** (Replacing 0842)

Gordon, Tomas

Reviewer: mm

NIH Guideline sections: III-E-2-b, III-E-2-a, III-E
Conditional Approval Date: 12/15/2014

R **R1858** (Replacing 0732-03)

Reviewer: vx

NIH Guideline sections: N/A
Conditional Approval Date: 3/16/2015

R **R1859** (Replacing 0692)

Hwang, Daniel

Reviewer: vx

NIH Guideline sections: III-E
Conditional Approval Date: 3/16/2015

D. Terminated BUAs: None

V. Discussion Items: None

1. Needle stick involving AAV vector - Barruel

On April 10, 2015, a researcher had a needlestick with AAV vector carrying human gene SGSH. This incident will be reported to NIH OBA since it involved personnel exposure to rDNA.

VI. Information Items:

1. High-Containment Laboratory Officer recruitment - Barruel

As recommended by UC President Napolitano, UC Davis is recruiting a High-Containment Facility Officer to oversee the operation, personnel training, and maintenance of safety documents for high-containment and select agent facilities.

2. High-Containment Laboratory Oversight Group - Barruel

As recommended by UC President Napolitano, UC Davis is in the process of forming an oversight group that will involve various stakeholders (including researchers, safety officers, facilities management, administration, emergency responders, architects, and finance officers) to ensure the proper planning, maintenance, and operation of high-containment facilities.

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

1. [REDACTED] BSL3 and ABSL3 annual re-verification - Baurruel

IBC approved (12-0-1, [REDACTED] abstained) the operation of the BSL3 and ABSL3 lab for another year.

IX. Notifications: None

X. Subcommittee Topics: None

End Time: 4:58 pm

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

MINUTES

May 18, 2015

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 6/15/2015

Start Time: 3:00 pm

In attendance:

| | |
|-----------------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |

IBC support staff in attendance:

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

Excused:

| | |
|-------------------------|--|
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio Member</i> , Medical Director, SHCS |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio Member</i> , Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio Member</i> , UCDMC Employee Health Services |

Guests:

| | |
|-----------------|---|
| Bryce Falk | PI, Plant Pathology |
| shahideh nour | Researcher, Plant Pathology |
| Suzanne Johnson | PI contact, Med: Medical Microbiology & Imm |

I. Review of past IBC meeting minutes:

April 20, 2015 **APPROVED** (9-0-2, Gelli and [REDACTED] abstained)

II. Announcements: None

III. Old Business: None

IV. New Business:

Lukas arrived

A. New and renewal BUAs for review:

BSL3

N **R1904** Falk, Bryce Reviewer: vx
Title: Assessing the biological activity of Diaphorina citri-infecting
NIH Guidelines: III-4-4-a, III-D-5-a, III-F-8, App C-II
APPROVED (12-0-0)

Draper arrived

R **R1928** (Replacing 0423) [REDACTED] Reviewer: jb
Title: Biology and immune response to Coccidioides
NIH Guidelines: III-D-2-a
APPROVED (13-0-0)

BSL2

N **R1903** [REDACTED] Reviewer: az
Title: Genomic Engineering and Categorization of Mammalian Systems
NIH Guidelines: III-D-4-a, III-E-1, III-F
APPROVED (11-0-0)

N **R1918** [REDACTED] Reviewer: vx
Title: Genetic and Cellular Treatments for Age-Related Macular Degeneration
NIH Guidelines: III-D-4-a, III-E-1
APPROVED (13-0-0)

R **R1932** (Replacing 0075-01) Hammock, Bruce Reviewer: vx
Title: Detection and mechanisms of action of xenobiotic and naturally occurring chemicals
NIH Guidelines: III-E-1
APPROVED (13-0-0)

N **R1942** Saeij, Jeroen Reviewer: jb
Title: The modulation of host cells by apicomplexan parasites
NIH Guidelines: III-D-1-a, III-D-2-a
APPROVED (13-0-0)

BBP only

R **R1933** (Replacing 1008B) Puschner, Birgit Reviewer: vx

Title: The interaction of environmental pollutants with the human genome might increase the chance of pregnant women to give birth to children with autism spectrum disorder

NIH Guidelines: N/A

APPROVED (13-0-0)

BSL1

R **R1899** (Replacing 0056) Rose, Lesilee Reviewer: az

Title: Control of cell division pattern in *C. elegans*

NIH Guidelines: III-D-1-a, III-D-4-b, III-F-4

APPROVED (13-0-0)

N **R1914** Pearson, Garry Reviewer: jb

Title: Growth of transgenic tomatoes that express apoA-I mimetic peptides

NIH Guidelines: III-E-2-a

CONDITIONALL APPROVED (13-0-0)

The IBC requested that the following comment(s) be addressed before final approval is granted:

1. Clarify how you label the transgenic tomatoes at the greenhouse.
2. Clarify whether the transgenic tomatoes will be grown near non-transgenic plants.
3. Clarify the risk of release of rDNA due to cross pollination of other plants or rDNA escape from the greenhouse. Further what would happen if the transgenic plant were accidentally released?
4. Clarify if you have a transport permit for the rDNA exchange between UCLA and UC Davis campuses. If so please add it to Section 8-Attachments.

R **R1920** (Replacing 0711-03) Beckles, Diane Reviewer: vx

Title: Characterization of a transgenic tomato line overexpressing an *Arabidopsis* Dof1 transcription factor

NIH Guidelines: III-E-2-a

APPROVED (13-0-0)

R **R1922** (Replacing 0886) Mitcham, Elizabeth Reviewer: az

Title: Postharvest biology and technology of fruits

NIH Guidelines: III-E-2-a

APPROVED (13-0-0)

R **R1924** (Replacing 0061-03) Gasser, Charles Reviewer: az

Title: Molecular basis of ovule development and evolution

NIH Guidelines: III-E-2-a

APPROVED (13-0-0)

R **R1930** (Replacing 1009) [REDACTED] Reviewer: jb

Title: Neurobiological mechanisms of memory consolidation

NIH Guidelines: III-D-4-a
APPROVED (13-0-0)

R **R1947** (Replacing 0711-04) Beckles, Diane Reviewer: vx
Title: Characterization of a rice glycogen synthase kinase gene and its potential role involving starch biosynthesis in response to salinity stress
NIH Guidelines: III-E-2-a, III-E-1
APPROVED (13-0-0)

Gelli left

B. Amendments:

BIO amendment:

BSL3

R1804

Title: Alphavirus Arbovirus surveillance, vector competence and host pathogenesis
Amendment to add:

1. New mosquito species

NIH Guidelines: III-D-1-b, III-D-1-a, III-D-2-a, II-ID-4-a
APPROVED (12-0-0)

Reviewer: jb

R1863

Title: Flavivirus arbovirus surveillance, vector competence and host pathogenesis
Amendment to add:

1. New mosquito species
2. Parasitic worm *Dirofilaria immitis*

NIH Guidelines: III-D-1-b, III-D-1-a, III-D-2-a, III-D-4-a
APPROVED (12-0-0)

Reviewer: jb

BSL2

R1810

Title: Understand the immune responses of influenza A infection in mice in association with social stress, air pollutant and allergic inflammation
Amendment to add:

1. Pertussis toxin

NIH Guidelines: III-E
APPROVED (12-0-0)

Reviewer: az

BSL1

R1574

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

1. Nucleic acids
2. Mice

Reviewer: az

NIH Guidelines: III-D-1-a, III-D-4-a
APPROVED (12-0-0)

C. Storage Only:

R **R1921** (Replacing 0774-01) [REDACTED]

Reviewer: az

STORAGE ONLY: The Role of Mouse Endogenous Retroviruses in
Systemic Response after Injury

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

D. Terminated BUAs: None

V. Discussion Items:

1. The IBC Voted (12-0-0) to extend the expiration dates for another month for BUAs #0900 (by Dr. [REDACTED]) and #0225 (by Dr. Abhaya Dandekar)

VI. Information Items: None

VII. IBC Training:

1. CRISPR/Cas9 technology - Baugh
Powerpoint presentation was given on the basics of how the system works, how it is utilized in research, and what the future hold for its utilization in the creation of knockout animals.

End Time: 4:45 pm

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

Minutes

June 15, 2015 (3-5pm)

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 7/20/2015

Start Time: 3:00 pm

In attendance:

| | |
|-----------------------|---|
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

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

Excused:

| | |
|-------------------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| Thomas Ferguson | Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests:

| | |
|------------|--|
| [REDACTED] | PI, Med:medical Microbiology & Imm |
| [REDACTED] | Laboratory Animal Medicine Resident with TRACS |

I. Review of past IBC meeting minutes:

May 18, 2015 **APPROVED (9-0-2, Bauer and Tsolis abstained)**

II. Announcements: None

III. Old Business:

BSL1

R **R1901** (Tabled 4/20/15) Dandekar, Abhaya Reviewer: az

Title: Functional Analysis of quality and productivity traits in crop

NIH Guideline: III-E-2-a, III-E-2-b-(3), III-E-2-b-(4), III-E

TABLED (11-0-0)

The IBC requested PI to submit a revised BUA amendment to address the comments listed below:

1. Section 1: The IBC requested that the "Project Summary" narrative be condensed and clarified
2. Section 6: The IBC requested that the "Risk Assessment" section be condensed and clarified.

IV. New Business

A. New and renewal BUAs for review:

BSL3

R **R1938** (Replacing 0900-03) [REDACTED] Reviewer: az

Title: Human pathogenic fungal research

NIH Guideline: III-D-2-a

CONDITIONALLY APPROVED (12-0-0) (*This BUA was reviewed after BUA R1952*)

The IBC requested that the following comment(s) be addressed before final approval is granted:

1. Section 1 – Project Summary: please discuss how and why you are using Histoplasma in your research.
2. Section 2 – BUA Locations: please provide accurate housing and procedure locations for experiments involving guinea pigs and rabbits, and procedure spaces for other rodents.
3. Section 4 – Biological Materials – Fungi/Yeast – Coccidioides immitis: please provide additional information regarding whether this increased resistance is to clinically relevant antifungal agents.
4. Section 7 – Risk Assessment – Experimental Procedures: please revise the BBB narrative to reflect that all experiments will be
5. Section 7 – Risk Assessment – Experimental Procedures: please provide additional information regarding how animals are handled safely during procedures (anesthetized or restrained).
6. Section 7 – Risk Assessment – Research Materials: please provide additional discussion of wet mounts including a risk assessment and a discussion of proper containment (use of PPE, biosafety cabinets, etc).

BSL2

N **R1939** [REDACTED] Reviewer: vx

Title: 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 Guideline: III-D-4-b
APPROVED (11-0-0)

R **R1940** (Replacing 0223) Thirkill, Charles Reviewer: vx
Title: Autoimmune reactions within the eye
NIH Guideline: III-F-8, App C-II
APPROVED (11-0-0)

R **R1945** (Replacing 1007) Tian, Lin Reviewer: az
Title: Imaging neural activity with genetically encoded calcium
indicators (GECIs)
NIH Guideline: III-D-1-a
APPROVED (11-0-0)

R **R1952** (Replacing 0759) [REDACTED] Reviewer: jb
Title: Cancer models and genetically engineered mice
NIH Guideline: III-D-3-a, III-D-4-a
APPROVED (11-0-0)

Belcord arrived

R **R1966** (Replacing 0984B) [REDACTED] Reviewer: vx
Title: Developmental therapeutics of pancreas and prostate cancer
NIH Guideline: III-D-4-a/b
APPROVED (12-0-0)

R **R1968** (Replacing 1011, [REDACTED]) [REDACTED] Reviewer: jb
Title: Aquatic Animal Health Research
NIH Guideline: III-D-1-a
TABLED (12-0-0)
The IBC requested PI to submit a revised BUA amendment to
address the comments listed below:
1. Delineate experiments with RG2 organisms from that of RG1
organisms.
2. Expand risk assessment to address handling RG2 organisms and
potential risk to human health.
3. Define waste practices for fish carcasses.
4. Separate and clarify the experimental operations with warm
blooded samples and cold blooded animals.

BBP only

R **R1716** (Replacing 0949) Hertz-picciotto, Irva Reviewer: az
Title: Early Autism Risk Longitudinal Investigation (EARLI)
NIH Guideline: N/A

APPROVED (12-0-0)

R **R1950** (Replacing 0888) Kost, Gerald Reviewer: vx
Title: Validation of a WBC-Differential Point-of-Care Instrument
NIH Guideline: N/A
APPROVED (12-0-0)

N **R1974** Phinney, Brett Reviewer: jb
Title: Serum Proteomics and Amino Acid Analysis
NIH Guideline: N/A
APPROVED (12-0-0)

N **R1979** Hull, Maury Reviewer: vx
Title: Accuracy evaluation of robotic-assisted total joint replacement
NIH Guideline: N/A
APPROVED (12-0-0)

BSL1

R **R1949** (Replacing 0889) VanderGheynst, Jean Reviewer: jb
Title: Agroinfiltration of plant tissues
NIH Guideline: III-E-2-a, III-E
APPROVED (12-0-0)

R **R1975** (Replacing 0107-02) Epstein, Lynn Reviewer: vx
Title: Biology and control of phytopathogenic fungi
NIH Guideline: III-E
APPROVED (12-0-0)

R **R1977** (Replacing 0051-03) McDonald, Karen Reviewer: az
Title: Transient expression of heterologous proteins by Agroinfiltration of plant tissue
NIH Guideline: III-E-2
APPROVED (12-0-0)

R **R1984** (Replacing 0887) Gubler, W. Douglas Reviewer: vx
Title: Biology and epidemiology of grapevine canker pathogens
NIH Guideline: N/A
APPROVED (12-0-0)

B. Amendments :

BIO amendment:

BSL2

R1528

Title: Anti-cancer and anti-inflammatory activities of phytochemicals
Amendment to add:

1. Salmonella enterica
2. Mice and mouse tissue

Reviewer: jb

NIH Guidelines: N/A

APPROVED (12-0-0)

R1660

Title: Infectious diseases of dogs and cats and zoonotic bloodborne bacterial infections

Reviewer: az

Amendment to add:

1. Methicillin sensitive Staphylococcus aureus
2. Inoculation of mice with the luminescent MSSA

NIH Guidelines: III-F

APPROVED (12-0-0)

R1709

Title: 3D Molecular Imaging of Tissue

Reviewer: jb

Amendment to add:

1. Madin–Darby canine kidney (MDCK) cells and tissues/organs from guinea pigs that are infected with fluorescent labeled PR8 Influenza A virus.

NIH Guidelines: III-D-1-a, III-D-4-a

APPROVED (12-0-0)

BSL1

R1847

Title: The study of mouse and human pancreatic islets.

Reviewer: az

Amendment to add:

1. Adeno-associated Virus Vector
2. Human and mouse cells

NIH Guidelines: III-D-3-e, III-F

APPROVED (12-0-0)

C. Storage Only:

R1976

Tai, Tomas

Reviewer: jb

Title: Generation and characterization of novel genetic variation in rice for the

NIH Guidelines: III-E-2

APPROVED (12-0-0)

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

N **R1828**

Schivo, Michael

Reviewer: WCG-cj

Title: Identifying rhinovirus infection in human breath

Conditional Approval Date: 4/20/2015

N **R1914**

Pearson, Garry

Reviewer: jb

Title: Growth of transgenic tomatoes that express apoA-I mimetic peptides

E. Terminated BUAs: None

V. Discussion Items:

1. Disposition of bedding from animals injected with recombinant plasmids - Xian & Barruel
After discussion, the IBC decided that the animal bedding from the first cage change post administration of recombinant or synthetic nucleic acids should be autoclaved before disposal.
2. IBC members re-appointment - Barruel
All IBC members in attendance agreed to be re-appointed as IBC members for another year.

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

EndTime: 5:00 pm

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

Minutes

July 20, 2015 (3-5pm)

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 8/17/2015

Start Time: 3:05pm

In attendance:

| | |
|----------------|---|
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

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

Excused:

| | |
|-------------------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| Lyle Najita | Voting Member, Public Member |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests:

| | |
|------------------|---------------------------------|
| Abhaya Dandekar | PI, Plant Sciences |
| Kristine Godfrey | PI, Agr & Env Sci |
| Lorence Oki | PI, Plant Sciences |
| Bruno Pitton | Plant Sciences |
| [REDACTED] | PI, Vm: Medicine & Epidemiology |

I. Review of past IBC meeting minutes:

June 15, 2015 **APPROVED (8-0-0)**

II. Announcements: None

III. Old Business:

BSL2

- R **R1968** (Tabled 6/15/15) [REDACTED] Reviewer: jb
Title: Aquatic Animal Health Research
NIH Guideline: III-D-1-a
APPROVED (8-0-0)

Tsolis arrived

BSL1

- R **R1511** (Tabled 2/24/14) Oki, Lorence Reviewer: az
Title: Slow sand and vegetated filters for the removal of plant
NIH Guideline: N/A
APPROVED (9-0-0)
- R **R1901** (Tabled 6/15/15) Dandekar, Abhaya Reviewer: az
Title: Functional Analysis of quality and productivity traits in crop
NIH Guideline: III-E-2-a, III-E-2-b-(3), III-E-2-b-(4), III-E
APPROVED (8-0-0) (*This BUA was review before BUA R1511*)

IV. New Business

A. New and renewal BUAs for review:

BSL3

- N **R2003** Godfrey, Kristine Reviewer: az
Title: Transmission of Liberibacter spp. by Asian citrus psyllid
NIH Guideline: N/A
APPROVED (9-0-0)

BSL2

- R **R1958** (Replacing 0505) Smith, Gary Reviewer: jb
Title: Survival of food-borne pathogens and activation of polyphenol oxidase
NIH Guideline: III-D-1-a, III-D-2-a
APPROVED (9-0-0)
- R **R1972** (Replacing 0603) Stephensen, Charles Reviewer: vx
Title: Dietary modulation of immune function
NIH Guideline: N/A
APPROVED (9-0-0)

R **R1978** (Replacing 0786) Knoepfler, Paul Reviewer: jb
Title: Analyzing Myc and H3.3 function in neural cancers and
NIH Guideline: III-D-1, III-E-3
APPROVED (9-0-0)

N **R2018** [REDACTED] Reviewer: vx
Title: Stem cell gene therapy for hiv mediated by lentiviral vector
transduced, pre-selected cd34+ cells
NIH Guideline: III-D-3-a, III-D-4-a
APPROVED (9-0-0)

[REDACTED] left the meeting

BSL1
R **R1943** (Replacing 0766) Gilchrist, David Reviewer: jb
Title: Transgenic over expression of anti-apoptotic plant genes to
NIH Guideline: III-E-2
APPROVED (8-0-0)

[REDACTED] came back to the meeting

R **R1955** (Replacing 0439) Britt, Anne Reviewer: az
Title: Plant response to DNA double strand breaks/Uniparental
inheritance
NIH Guideline: III-E-2-a
APPROVED (9-0-0)

R **R1962** (Replacing 1012) [REDACTED] Reviewer: vx
Title: Fish biomarker study - production of recombinant protein using
NIH Guideline: III-E, III-F, App C-I
APPROVED (9-0-0)

R **R1987** (Replacing 0896) Atsumi, Shota Reviewer: az
Title: Biochemical production from Escherichia coli and cyanobacteria
NIH Guideline: III-E-1
APPROVED (9-0-0)

N **R1996** Borodinsky, Laura Reviewer: az
Title: Mechanisms of spinal cord and muscle development and
NIH Guideline: III-E-1
APPROVED (9-0-0)

B. Amendments :

BIO amendment:

BSL3

R1765 Godfrey, Kristine Reviewer: az
Title: Effects of mixed infections of plant pathogens on detection of HLB using two

Amendment to add:

1. Closteroviruses (citrus tristeza virus - 2 isolates)

NIH Guidelines: N/A

APPROVED (9-0-0)

BSL2

R1918

Title: Genetic and Cellular Treatments for Age-Related Macular Degeneration

Reviewer: vx

Amendment to add:

1. Lentiviral vector and AAV vector
2. Mice
3. Nucleic acid

NIH Guidelines: III-D-3-a, III-D-3-e, III-D-4-a

APPROVED (9-0-0)

BSL2

0899

Title: Beneficial effects of lactic acid bacteria and commensals associated with plants, foods and mammalian guts

Reviewer: az

Amendment to add:

1. *Streptococcus agalactiae* and *Staphylococcus aureus*

NIH Guidelines: N/A

APPROVED (9-0-0)

C. Storage Only: None

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

E. Terminated BUAs:

0459-04

Title: Effect of minerals on broiler performance during a coccidiosis challenge

Exp date: 06/18/2015

Reviewer: pb

0761

Wood, Matthew

Title: Creation of an oxidative stress biosensor for use in plants

Exp date: 06/18/2015

Reviewer: mm

V. Discussion Items:

1. USDA Notice of Compliance with Comments - Barruel
The BSO explained to the IBC about USDA's reporting requirement outlined in the permit conditions to the PI.
2. Dual Use Research of Concern (DURC) - Barruel
The BSO presented DURC requirements to the IBC. The IBC agreed (by a vote of 9-0-0) to form an Institutional Review Entity as a separate group which will be constituted mostly by IBCmembers.

3. When should an amendment become a separate BUA? - Barruel
Postponed
4. BUAs required for multicellular parasites (as we do for unicellular pathogens)? - Barruel
Postponed
5. Extension of BUA 0986 (Gupta, Munish) - Baugh
IBC approved (9-0-0) to extend this BUA in "Storage only" status through September 2015 until a new faculty is appointed to take over the project.

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

EndTime: 5:05 pm

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

Minutes

August 17, 2015

Hoagland Hall Rm 130

NOTE: Next IBC meeting: 09/21/2015

Start Time: 3:00pm

In attendance:

| | |
|----------------|--|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div of Hematology/Oncology |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |

IBC support staff in attendance:

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

Excused:

| | |
|-------------------------|---|
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Occupational Health Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Renee Tsoli | Voting Member, Medical Microbiology & Immunology |
| Thomas Ferguson | Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests: None

I. Review of past IBC meeting minutes:

July 20, 2015 **APPROVED (6-0-5, SB, WB, AG, JL and LN abstained)**

II. Announcements: None

III. Old Business: None

IV. New Business

A. New and renewal BUAs for review:

BSL2

- R **R1961** (Replacing 0830-01B) [REDACTED] Reviewer: az
Title: Sodium channel pharmacology and genetics
NIH Guideline: App C-1
APPROVED (11-0-0)
- N **R1983** [REDACTED] Reviewer: vx
Title: Environmental Pathogen Pollution Research Involving Zoonotic
Protozoal and Bacterial Fecal Organisms
NIH Guideline: N/A
APPROVED (11-0-0)
- R **R1994** (Replacing 0863-02) [REDACTED] Reviewer: jb
Title: Generation of induced pluripotent stem cell and neural cells
NIH Guideline: IID1, IID4a
APPROVED (11-0-0)
- R **R1999** (Replacing 0595) Kado, Norman Reviewer: vx
Title: Bioassay Analyses of Environmental Pollutants
NIH Guideline: N/A
APPROVED (11-0-0)
- R **R2012** (Replacing 0892) [REDACTED] Reviewer: vx
Title: Electric fields directed cell migration and wound healing and
regeneration
NIH Guideline: IID3a, IID4b, IIF8, App C-II
APPROVED (11-0-0)
- R **R2013** (Replacing 0531-02) [REDACTED] Reviewer: az
Title: Examining complement pathways in the posterior pole of the
vertebrate eye.
NIH Guideline: IID4a
APPROVED (11-0-0)
- N **R2028** [REDACTED] Reviewer: jb
Title: Genomic and functional characterization of human-specific
complex traits and disorders
NIH Guideline: IID2a, IIF1
CONDITIONALLY APPROVED (11-0-0)
The IBC requested that the following comment(s) be addressed
before final approval is granted:
1. Please clarify the source of the primate cells that intend on
2. Please clarify the species of primate cells that intend on testing.

3. Please clarify whether these primate cells are screened for the presence of any infectious agents.
4. Please clarify whether these primate cells could harbor the Herpes B virus.

R **R2033** (Replacing 0849-03) [REDACTED] Reviewer: jb
 Title: A gene therapy strategy for the production of recombinant feline erythropoietin in cats
 NIH Guideline: IID1
APPROVED (11-0-0)

BBP only

R **R2007** (Replacing 0688) Berglund, Lars Reviewer: az
 Regulation of Lipoprotein(a) Metabolism in Humans with Special
 Title: Reference to Ethnicity, Genetics and HIV infection
 NIH Guideline: N/A
APPROVED (11-0-0)

R **R1611** (Replacing 0969B) Gaikwad, Nilesh Reviewer: az
 Metabolic signatures of human diseases and their modulation
 Title: using natural compounds
 NIH Guideline: N/A
APPROVED (11-0-0)

BSL1

R **R2010** (Replacing 0441) Callis, Judy Reviewer: az
 Title: Molecular studies on proteolysis and on pfkb proteins in plants
 NIH Guideline: IIIE2, App C-II, App C-III
APPROVED (11-0-0)

B. Amendments :

BIO amendment:

BSL1

R1853 [REDACTED] Reviewer: jb
 Title: Investigation of the biologic function of MeCP2e1
 Amendment to add:
 1. Adeno-associated Virus Vector
 NIH Guidelines: IID4a, IIIE1
APPROVED (11-0-0)

Amendments on SmartSite (old form):

BSL2

0796-02B(B) Lam, Kit Reviewer: az
 Title: Use of human/blood/tissue/cell lines to identify cancer targeting ligands
 Amendment to add:
 1. Lentiviral vector

2. Human cell line

NIH Guidelines: IID1a

APPROVED (11-0-0)

0928 (A)

Reviewer: az

Title: Mammalian virology in a veterinary diagnostic laboratory

Amendment to add:

1. BPSV and Influenza H3N2

NIH Guidelines: N/A

CONDITIONALLY APPROVED (11-0-0)

The IBC requested that the following comment(s) be addressed before final approval is granted:

1. Discuss whether the newly added Influenza H3N2 is known to infect humans?
2. Specify whether you will be culturing either of these agents then storing them or will you just be handling the tissues containing these agents and will subsequently store them long term.
3. In the BPS section, IBC reviewers had issues with the sentence "Although the disease is mild, foot-and-mouth disease must be ruled out" as it is unclear why this was brought up. More information is needed, or deletion of this sentence is recommended.
4. In the Influenza section, IBC reviewers would like you to specify whether the flu vaccination is available, but not required. Also state whether the current flu vaccine includes this strain. If this strain of influenza is not known to infect humans, state this in the justification.
5. 6. Please reiterate whether these tubes will be disinfected with 10% bleach before removing them from the BSC.

1036B(A)

Reviewer: az

Title: Engineering articular cartilage using human dermis-derived stem cell and chondrocytes

Amendment to add:

1. Adenovirus

NIH Guidelines: IID4a

APPROVED (11-0-0)

C. Storage Only:

R **R1997** (Replacing 0890-1) Parfitt, Dan

Reviewer: vx

(Storage only) Horticultural crop genomics: Genetic resources diversity and

Title: integrated pest management

NIH Guidelines: N/A

APPROVED (11-0-0)

R **R2005** (Replacing 1013, SOP) Senties-Cue, Carlos

Reviewer: jb

Title: (Storage only) Characterization of a Coxiella-like organism

NIH Guidelines: N/A

APPROVED (11-0-0)

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

E. Terminated BUAs: None

0743-01

Reviewer: nld

Title: Aspergillus inoculum dose-range finding study for a quail model of aspergillosis

Exp date: 08/20/2015

0762

Labavitch, John

Reviewer: mm

Title: Functional analysis of plant gene function based on transgenic expression in tomato, rice, Brachypodium, grape, Arabidopsis thaliana and/or E. coli. in canine brains

Exp date: 08/20/2015

1010B

Lane, Nancy

Reviewer: pb

Title: Augmentation of bone formation by mesenchymal stem cells transplantation or targeting cell fates

Exp date: 08/20/2015

1014B

Hu, Jerry

Reviewer: pb

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

Exp date: 08/20/2015

V. Discussion Items: None

- 1 When should an amendment become a separate BUA? - Barruel
Postponed to the September meeting
- 2 BUAs required for multicellular parasites (as we do for unicellular pathogens)? - Barruel
Postponed to the September meeting

VI. Information Items:

1. DURC slides from one of the Discussion Items of the July 2015 IBC meeting
DURC slides were made available to all IBC members.

VII. IBC Training:

1. NIH Guidelines sections IIIF and IIIE
Postponed to the September meeting

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

EndTime: 4:40 pm

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

Sept 21, 2015 (3:00 – 5:00 PM)

Hoagland Hall, Rm 130

In attendance:

| | |
|----------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div. of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting Ex-Officio Member, Director, Occupational Health Services |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Ex-Officio Member, Attending Veterinarian |
| Lyle Najita | Voting Member, Public Member |
| Renee Tsois | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|------------------|--|
| James Baugh | Associate Biosafety Officer, Environmental Health and Safety |
| Chelsea Schiano | High Containment Facility Manager, Environmental Health and Safety |
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Adrienne Zweifel | Associate Biosafety Officer, Environmental Health and Safety |

Excused:

| | |
|-------------------------|--|
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Thomas Ferguson | Non-Voting Ex-Officio Member, Medical Director, SHCS |
| Jill Blackwelder-Parker | Non-Voting Ex-Officio Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting Ex-Officio Member, UCDMC Employee Health Services |

Guests: None

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

I. Review of past IBC meeting minutes:

August 17, 2015

APPROVED (11-0-0)

II. Announcements:

1. Welcome Chelsea Schiano, High Containment Facility Officer

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

Belcourt arrived

BSL2

N R1851

Comparative Biology of Canine Glioma and Neural Stem Cells

NIH Guideline: IID3b, IIF8, App C-II

APPROVED (12-0-0)

Reviewer: vx

R R2025 (Replacing 0774-02)

The Regulation of Glucocorticoid Receptor, Endogenous Retroviruses, and other Retroelements after Burn Injury

NIH Guideline: IID1

APPROVED (12-0-0)

Reviewer: az

N R2040

Local Calcium Signaling in Muscle

NIH Guideline: IID1a, IID4a

APPROVED (12-0-0)

Reviewer: az

R R2042 (Replacing 1015B)

Wound healing

NIH Guideline: IID4b

APPROVED (12-0-0)

Reviewer: vx

N R2053

Genetic Analysis of Mammalian Eye Development

NIH Guideline: IID1a

APPROVED (12-0-0)

Reviewer: az

Tsolis arrived

R R2061 (Replacing 0986, Gupta, M)

Spinal implant infection model in rabbits

NIH Guideline: N/A

TABLED (13-0-0)

Reviewer: jb

The IBC requested PI to submit a revised BUA to address the comments listed below:

- 1) Can the lab work with a less dangerous strain of Staph aureus for these experiments?
- 2) Expand animal study section to address how the lab will handle shedding of the infectious bugs from the wound site, cage decontamination, animal restraint during surgical procedure, and sonication of sharp object procedures. 3) Clarify where the animal work will take place room surgical procedure and animal housing location, as well as waste accumulation site.

N **R2073** Wuertz, Stefan Reviewer: jb
Evaluation of biological constituents in biogas
 NIH Guideline: IID2a, IIF8, App C-II
APPROVED (13-0-0)

N **R2077** [REDACTED] Reviewer: vx
The Role of Glioma Stem Cells in Tumor Progression
 NIH Guideline: IID3b, IID4b, IIF8, App C-II
APPROVED (13-0-0)

BBP only

R **R2031** (Replacing 0830-01B) McBride, Zeljka Reviewer: az
MicroRNA Biomarkers for AMD and DR in bodily fluids
 NIH Guideline: N/A
APPROVED (13-0-0)

R **R2046** (Replacing 0635, Brown, K) Haskell, Majorie Reviewer: vx
Micronutrient absorption, metabolism and status in populations at risk of deficiency
 NIH Guideline: N/A
APPROVED (13-0-0)

N **R2079** Hess, Sonja Reviewer: vx
Micronutrient absorption, metabolism and status in populations at risk of deficiency
 NIH Guideline: N/A
APPROVED (13-0-0)

BSL1

R **R2023** (Replacing 0278-02) Privalsky, Martin Reviewer: jb
Splice-specific disruption of NCoR corepressor expression
 NIH Guideline: IIIE3a
APPROVED (13-0-0)

R **R2027** (Replacing 0735) Chen, Xi Reviewer: vx
Cloning, expression, and characterization of carbohydrate biosynthetic enzymes
 NIH Guideline: IIIE, IID2a
APPROVED (13-0-0)

R **R2038** (Replacing 0640) [REDACTED] Reviewer: vx

Analysis of gametogenesis budding yeast and zebrafish

NIH Guideline: IIID4a, IIIF8, App C-II, C-III

APPROVED (12-0-1, Draper abstained)

R **R2047** (Replacing 0763) [REDACTED] Reviewer: az

Mechanisms of zebrafish gonad formation and function

NIH Guideline: IIID4a

APPROVED (12-0-1, Draper abstained)

R **R2048** (Replacing 0470-01) Bostock, Richard Reviewer: jb

Mechanisms of resistance and susceptibility in plant-microbe interactions

NIH Guideline: IIIE2a, IIIE2b3, IIIE2b4

APPROVED (13-0-0)

R **R2049** (Replacing 0470-02) Bostock, Richard Reviewer: jb

Etiology, Epidemiology and Management of Orchard Crop Diseases

NIH Guideline: N/A

APPROVED (13-0-0)

R **R2050** (Replacing 0106) Liu, Bo Reviewer: jb

Studies of the Cytoskeleton in Higher Plants and the Fungus *Aspergillus nidulans*

NIH Guideline: IIID2a

APPROVED (13-0-0)

R **R2054** (Replacing 0894) Davis, Richard Reviewer: jb

Vegetable and Field Crop Pathology Research

NIH Guideline: N/A

TABLED (13-0-0)

The IBC requested PI to submit a revised BUA to address the comments listed below:

- 1) Clarification on the status of the lab, is the PI retired?
- 2) Is work actively being performed? The current application needs clarification.

B. Amendments:

BIO amendment:

BSL3

R1722

Avian virology in a veterinary diagnostic laboratory

NIH Guideline: N/A

APPROVED (13-0-0)

Reviewer: az

BSL2

R1583

Engineering Vascular Beds

NIH Guideline: IIID4a

APPROVED (13-0-0)

Reviewer: az

R1592

Role of NK cell subsets in MCMV and influenza infection

NIH Guideline: N/A

APPROVED (13-0-0)

Reviewer: az

R1650

Effects of stress on brain and behavior

NIH Guideline: IID1a, IID4a

APPROVED (13-0-0)

Reviewer: jb

Amendment on SmartSite (old form): None

Belcourt stepped out

C. Storage only:

R **R2074** (Replacing 1052)

Parkinson, Nina

Reviewer: az

STORAGE ONLY: *Clostridium botulinum* spore collection

NIH Guideline: N/A

APPROVED (12-0-0)

Belcourt came back, Gelli left

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

N **R2028**

Dennis, Megan

Reviewer: jb

Genomic and functional characterization of human-specific complex traits and disorders

NIH Guideline: IID2a, IIF1

Conditional Approval Date: 8/17/2015

A **0928 (A)**

Mammalian virology in a veterinary diagnostic laboratory

Amendment to add: BPSV and Influenza H3N2

NIH Guideline: N/A

Conditional Approval Date: 8/17/2015

Reviewer: az

E. Terminated BUAs:

0891B

Cherr, Gary

Reviewer: pb

Defensins at the interface of male and female innate immunity

Exp date: 08/20/2015

V. Discussion Items:

1. When should an amendment become a separate BUA? – Barruel

The IBC decided that the determination should be made on a case-by-case basis using the following general criteria:

- 1) Whether or not a BUA has clear descriptions on what is being done with all the organisms listed; and
- 2) If all the research activities fit under the same general objectives.

2. BUAs required for multicellular parasites (as we do for unicellular ones)? – Barruel
The IBC decided that BUAs are required and they should be reviewed by the IBC since multicellular parasites are pathogens.

VI. Information Items: None

VII. IBC Training:

1. NIH Guidelines sections IIIF
PowerPoint slides used for the training session will be made available to the IBC members next month.

VIII. BSL3 Laboratory Information:

1. CAHFS BSL3 annual re-verification
The CAHFS BSL3 facility was tested on August 6, 2015 during the UCOP High-Containment Program Site Visit. The BSL3 facility passed the HVAC failure test. Although there was a brief airflow reversal from 1307C (exit room outside of the main laboratory) into 1305C (outside of containment), it does not pose a significant risk of loss of containment. The IBC voted (12-0-0) to approve the operation of the facility for another year.

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 5:00 pm.

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

October 19, 2015 (3:00 – 5:25 PM)

Hoagland Hall, Rm 130

In attendance:

| | |
|-----------------------|---|
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div. of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services |
| William Buhles | Voting Member, Public Member |
| [REDACTED] | Voting Member, Campus Veterinary Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Fred Jacobsen | Voting Member, Public Member |
| [REDACTED] | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| [REDACTED] | Voting Member, Animal Science |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |

IBC support staff in attendance:

| | |
|------------------|--|
| James Baugh | Associate Biosafety Officer, Environmental Health and Safety |
| Chelsea Schiano | High Containment Facility Manager, Environmental Health and Safety |
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Adrienne Zweifel | Associate Biosafety Officer, Environmental Health and Safety |
| James Klenner | Consultant, WCG |

Excused:

| | |
|-------------------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Johan Leveau | Voting Member, Plant Pathology |
| [REDACTED] | Voting Member, (Alternate) Campus Veterinarian |
| Thomas Ferguson | Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS |
| Lyle Najita | Voting Member, Public Member |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests:

| | |
|------------------|-------------------------------------|
| Aaron Jacobson | Plant Sciences |
| Sumathi Sankaran | Medical Microbiology and Immunology |

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 Gerhard Bauer, IBC Vice-Chair.

I. Review of past IBC meeting minutes:

September 21, 2015

APPROVED (8-0-1, [REDACTED] abstained)

II. Announcements: None

III. Old Business:

[REDACTED] Arrived

BUA tabled at the Sept 21, 2015 IBC meeting:

BSL1

R **R2072** (was R2054 Replacing 0894) Davis, Richard

Reviewer: jb

Plant pathogen etiology, transmission and resistance

NIH Guideline: N/A

TABLED (10-0-0) at BSL1

The IBC requested PI to submit a revised BUA to address the comments listed below:

- 1) Please clarify whether you are culturing *Pseudomonas syringe*, *Verticillium dahlia*, and *Fusarium oxysporum*.
- 2) Please clarify what research operations you intend on performing with each of the following microbes: *Pseudomonas syringe*, *Verticillium dahlia*, and *Fusarium oxysporum*.
- 3) Please clarify whether you intend on growing plants.
- 4) Please clarify where you intend on growing these plants and what research you intend on performing with them.

IV. New Business:

A. New and renewal BUAs for review:

HGT

N **C1960**

Ducore, Jonathan

Reviewer: jk

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

NIH Guideline: IIIC, IIID1a

APPROVED (10-0-0) at BSL2

BSL3

R **R2096** (Replacing 0400)

Dandekar, Satya

Reviewer: cs

HIV and SIV pathogenesis

NIH Guideline: IIIE1

APPROVED (10-0-0) at BSL3

BSL3P

R **R2030** (Replacing 0897-01)

Slupsky, Carolyn

Reviewer: jb

The interaction between host organisms and microbes in health and disease

NIH Guideline: N/A

The IBC stipulated that use of 70% Ethanol was not an adequate means of decontaminating centrifuge buckets used with cells of human origin. The IBC requires the utilization of a hospital grade disinfectant that is proven to neutralize all potential human bloodborne pathogens.

APPROVED (10-0-0) at BSL3P

R **R2058** (Replacing 0225) Dandekar, Abhaya Reviewer: az
Citrus Health and Management
NIH Guideline: IIID, IIIE

CONDITIONALLY APPROVED (10-0-0) at BSL3P

The IBC requested that the following comment(s) be addressed before final approval is granted:

- 1) Provide more information regarding the duration of the life cycle of the insect vector and whether the length of infection allows time for them to breed.
- 2) Explain how the insect vectors are counted and contained.

BSL2

R **R2055** (Replacing 0581) Harris, Linda Reviewer: vx
Enteric pathogens associated with foods and the environment
NIH Guideline: N/A

APPROVED (10-0-0) at BSL2

R **R2056** (Replacing 0084-03) Mills, Davis Reviewer: vx
Selective enrichment of gut bacteria by oligosaccharides
NIH Guideline: IIIE, IIIF8, App C-II

APPROVED (10-0-0) at BSL2

R **R2057** (Replacing 1017) Adams, Jason Reviewer: jb
Identification of novel bacterial virulence factors by whole-genome sequencing of pathogens in sepsis
NIH Guideline: IIIF1

APPROVED (10-0-0) at BSL2

R **R2062** (Replacing 0731-02) [REDACTED] Reviewer: az
Co-infection with malaria and non-typhoidal *Salmonella* (NTS)
NIH Guideline: N/A

APPROVED (10-0-0) at BSL2

R **R2064** (Replacing 0033-02) Payne, John Reviewer: jk
Regulation of intracellular [Cl⁻] in vertebrate cardiomyocytes
NIH Guideline: IIID3a, IIID1a

APPROVED (10-0-0) at BSL2

R **R2069** (Replacing 0575) Conley, Alan Reviewer: vx
Comparison of tissue and species specific differences between recombinant steroidogenic cytochromes P450 and redox partner proteins with their primary tissue counterparts

NIH Guideline: IIIE, IIIF8, App C-II

APPROVED (10-0-0) at BSL2

N **R2080** Stergiopoulos, Ioannis Reviewer: vx
Monitoring of azole susceptibility in *Aspergillus fumigatus* and inhibiting aflatoxin production in *Aspergillus flavus* and *Aspergillus parasiticus*.

NIH Guideline: IIID1a, IIIE

APPROVED (10-0-0) at BSL2

R **R2084** (Replacing 1022B) Wan, Yu-Jui Reviewer: jb
Retinoic acid, its receptors, and the liver

NIH Guideline: IIID3a, IIID4a

APPROVED (10-0-0) at BSL2

The IBC requested clarification of engineering controls utilized throughout the human blood handling operations, prior to approval.

R **R2087** (Replacing 0881B) [REDACTED] Reviewer: jk
Linking contractile dysfunction to cardiac arrhythmias

NIH Guideline: N/A

TABLED (10-0-0)

The IBC requested that the PI submit a revised BUA to address the comments listed below: The submitted BUA was extremely vague and devoid of pertinent details regarding the use of the cell types. A risk assessment was not possible and without a review, the study was tabled. The PI will be requested to resubmit with specific details in each section.

Jacobsen left the meeting

R **R2089** (Replacing 1024) [REDACTED] Reviewer: jb
Bovine Mastitis Pathogen Research

NIH Guideline: IIIF1

APPROVED (9-0-0) at BSL2

Jacobsen came back to the meeting

N **R2098** (BSL2P) Falk, Bryce Reviewer: cs
Evaluation of a bacteriophage complex for effects against *Xylella fastidiosa*, causal agent of Pierce's Disease of grapevines

NIH Guideline: N/A

CONDITIONALLY APPROVED (10-0-0) at BSL2

The IBC requested that the following comment(s) be addressed before final approval is granted:

The PI must describe containment measures that will be used to ensure that the bacteriophage complex is not spread to neighboring grapevines and the environment. The host range of the bacteriophage complex should be defined.

N **R2100** Privalsky, Martin Reviewer: jb

Study of human Resistance to Thyroid Hormone Syndrome using replication-defective adenoviral vectors

NIH Guideline: IIID3a

APPROVED (10-0-0) at BSL2

R **R2105** (Replacing 0648) Powers, Edmund Reviewer: jb
TOR Signaling in Yeast and Mammalian Cells

NIH Guideline: IIIF6

APPROVED (10-0-0) at BSL2

R **R2109** (Replacing 1028) [REDACTED] Reviewer: az
Persistence and susceptibility of poultry viruses to chemicals and characterization of the immune responses and pathology generated in chickens

NIH Guideline: N/A

APPROVED (10-0-0) at BSL2

R **R2110** (Replacing 0084-03) [REDACTED] Reviewer: vx
Diarrhea, gut dysbiosis and potential solutions in nursing animals

NIH Guideline: N/A

APPROVED (9-0-1, Maga abstained) at BSL2

BBP only

N **R2099** Schelegle, Edward Reviewer: az
Soluble antioxidant modulation: Test of a computational model of ozone-induced response.

NIH Guideline: N/A

APPROVED (10-0-0) at BSL2

BSL1

R **R2059** (Replacing 0024-02) Ullman, Diane Reviewer: jk
Advancing Innovative Technologies and Integrated Strategies for sustainable Management of Thrips-Transmitted Tospoviruses

NIH Guideline: IIIE2a

APPROVED (10-0-0) at BSL1

N **R2097** Williamson, Valerie Reviewer: vx
Genomic editing tools for root-knot nematodes

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

APPROVED (10-0-0) at BSL1

N **R2102** Berry, Alison Reviewer: az
Transformation and Genetic Manipulation of genus *Frankia*: Beneficial Nitrogen-Fixing Endosymbionts of Plant Roots

NIH Guideline: IIIE

APPROVED (10-0-0) at BSL1

B. Amendments:

BIO amendment:

BSL2

R1605

Suslow, Trevor

Reviewer: az

Study of the microbiological safety of fresh produce

NIH Guideline: N/A

APPROVED (10-0-0) at BSL2

Amendment on SmartSite (old form):

BSL2

0801

Reviewer: jb

Transcription responses of mouse olfactory sensory neurons to attenuated vesicular stomatitis virus

NIH Guideline: IID1b

APPROVED (10-0-0) at BSL2

C. Storage only :

R **R2065** (Replacing 0741-02)

Tsolis, Renee

Reviewer: cs

Storage only: RG1 and RG2 organisms

NIH Guideline: N/A

APPROVED (10-0-0)

D. Terminated BUAs:

1018B

Morse, Lawrence

Reviewer: mm

Gene Expression Patterns in Age-related Macular Degeneration (AMD)

Exp date: 10/15/2015

V. Discussion Items:

1. Vivarium Hazard Safety Sheet to be approved by IBC and IACUC, attached to BUAs, and used by animal caretakers – Zweifel
The IBC was informed that the Animal Facilities will be updating the Hazard Identification forms for the animal care staff in vivaria. These forms will be completed by the Biosafety Office and attached to the BUA. [REDACTED] requested additional input by the IBC, therefore further discussion of the forms was deferred until the November IBC meeting.

VI. Information Items:

1. Potential Risks and Benefits of Gain of Function Research Second Symposium – Barruel
The IBC was informed that there will be a second symposium on the Potential Risks and Benefits of Gain of Function Research in March 2016.
2. J1 BSL3 facility water intrusion – Barruel
The IBC was informed that there was a water intrusion in the J1 BSL3 facility (not currently in use) and that it may take six months or longer to get the facility back to operational status.
3. NIH OBA reports submitted for recombinant work by laboratories of Alison Berry and Martin Privalsky – Baugh and Zweifel

- a. The IBC was verbally presented the circumstances that prompted the Privalsky (PI) NIH OBA report for failure to obtain IBC approval prior to the start of research that falls under Section III-D of the NIH guidelines. The IBC required both the PI and graduate student complete all pertinent Biosafety training modules, and approved the Privalsky's BUA application that covers this recombinant work.
- b. The IBC was verbally informed of the circumstances that prompted the Berry (PI) NIH OBA report for failure to obtain IBC approval simultaneous to the start of research that falls under Section III-E of the NIH guidelines. The IBC reviewed and approved the Berry's BUA application that covers this recombinant work.

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 5:25 pm.

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

November 16, 2015 (2:58 – 5:20 PM)

Hoagland Hall, Rm 130

In attendance:

| | |
|----------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div. of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior; Representative, VA Northern California Health Care System |
| William Buhles | Voting Member, Public Member |
| Nicole Corley | Voting Member, Campus Veterinary Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Diane Hoffmann | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| Victor Lukas | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| Elizabeth Maga | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Renee Tsolis | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|------------------|--|
| James Baugh | Associate Biosafety Officer, Environmental Health and Safety |
| Chelsea Schiano | High Containment Facility Officer, Environmental Health and Safety |
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Adrienne Zweifel | Associate Biosafety Officer, Environmental Health and Safety |

Excused:

| | |
|-------------------------|--|
| Thomas Ferguson | Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS |
| Betty Ma | Voting Member, (Alternate) Campus Veterinarian |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |

Guests:

| | |
|--------------------|--|
| Elizabeth Reay | California Animal Health and Food Safety |
| Nicole Drazenovich | Center for Comparative Medicine |
| Greg Hodge | CNPRC |

Call to Order: A quorum was established with 11 voting members present and the Institutional Biosafety Committee (IBC) was called to order at 2:58 pm by Angela Gelli, IBC Chair.

I. Review of past IBC meeting minutes:

October 19, 2015

APPROVED (7-0-4, Bodine, Gelli, Hoffman and Najita abstained)

II. Announcements: None

III. Old Business:

Belcourt, Leveau, and Maga arrived

A. BUA reviewed at the October 19, 2015 IBC meeting that was later confirmed to have a safety equipment deviation from IBC expectation

BSL2

R **R2084** (Replacing 1022B) [REDACTED]

Reviewer: jb

Retinoic acid, its receptors, and the liver

NIH Guidelines: IID3a, IID4a

CONDITIONALLY APPROVED (14-0-0) at BSL2

The IBC requested that the following comment(s) be addressed before final approval is granted:

- They are not doing much in the BSC, they only have face shields
- Restrict clinical lab and research to trained personnel
- Conditional approval due to changes needed with splatter containment

B. BUAs tabled at the October 19, 2015 IBC meeting:

BSL1

R **R2072** (was R2054 Replacing 0894) Davis, Richard

Reviewer: jb

Plant pathogen etiology, transmission and resistance

NIH Guidelines: N/A

APPROVED (14-0-0) at BSL1

- All provisional questions addressed

IV. New Business:

A. New and renewal BUAs for review:

Guest Elizabeth Reay

BSL3

N **R2124** [REDACTED]

Reviewer: cs

Persistence of Pathogenic Avian Influenza (PAI) in Organic Material

NIH Guidelines: N/A

APPROVED (14-0-0) at BSL3

- Elizabeth Reay was able to answer the following questions during the IBC meeting:
 - Since the researchers are comparing the viability of different strains of Influenza viruses, HPAI and LPAI should have the same “hazardous procedures” options selected.
 - Since the egg will be used to culture HPAI, it should be listed as BSL3, not BSL1.
 - The inactivation of liquid waste should state that it will be “inactivated with bleach (10% final concentration).” The current description makes it sound like they’re starting with 10% bleach. The final concentration of the liquid waste should be 10% bleach.
 - The BUA states that the researchers will work in the BSL3 and personnel will wear N95s, but will they use a BSC? If so, what will be done in a BSC?
 - The medical waste management plan needs to be added to the BUA.
 - The researchers should outline the quarantine requirements in the BUA (e.g. no contact with susceptible avian species for 5 days after last working with the virus).
 - Describe containment during centrifugation.
 - Poultry bedding can be dusty. Can the researchers describe how it will be contained after spiking?
- For the footbath experiments, what volumes of footbath will they work with? If it will be simulating a facility footbath, how will they ensure that the liquid will not spill? The Biosafety Office pre-reviewer will follow-up on footbath volume.
- An IBC member inquired about the disposal and document location.

BSL2

N **R1876**

Reviewer: jb

Combined cell and gene therapy using MSCs expressing basic fibroblast factor to accelerate fracture repair

NIH Guidelines: IID1b, IID4a

APPROVED (14-0-0) at BSL2

- Add report exposure to Occupational Health
- PI re-training is needed (it is over 3 years old)

R **R2082** (Replacing 0794)

Reviewer: vx

Breeding colonies of transgenic mice and related RNAi projects

NIH Guidelines: IID3a, IID4a, IIIE, IIIF8, App C-II, App C-III, App C-VIII

APPROVED (14-0-0) at BSL2

- Risk Assessment of lentiviral vector, add risks of insertion mutagenesis in case of auto-inoculation
- “Transfection” should be changed to “transduction”

R **R2086** (Replacing 0893) [REDACTED] Reviewer: az
Genetic Determinants of Musculoskeletal Development, Adaptation, and Regeneration
NIH Guidelines: IID3

CONDITIONALLY APPROVED (14-0-0) at BSL2

The IBC requested that the following comment(s) be addressed before final approval is granted:

- Oncogenes – tumor growth factor beta activator is incorrectly marked as “non-hazardous”
- BUA should clarify who is doing the animal work
- New IACUC protocol numbers needed
- Clarification of source of animal tissues at Vet School (is it from necropsy or clinically-ill animals?)
- Training – Biosafety Office pre-reviewer will follow-up

BBP only

N **R1619** Medici, Valentina Reviewer: jb
Procedures for DNA extraction and metabolite profiling of human liver and plasma
NIH Guidelines: N/A

APPROVED (14-0-0) at BSL2

- The researchers will not use a BSC

R **R2066** (Replacing 1020B) Rogawski, Michael Reviewer: vx
Clinical Trial of Allopregnanolone for Treatment of Traumatic Brain Injury
NIH Guidelines: N/A

APPROVED (14-0-0) at BSL2

- IRB approval was obtained, but need to provide the IRB approval number.

R **R2068** (Replacing 0617) Allen, Lindsay Reviewer: vx
Micronutrient metabolism and status in populations at risk of deficiency
NIH Guidelines: N/A

APPROVED (14-0-0) at BSL2

- This BUA covers work with human blood samples from a population with up to 20% HIV positive rate. The BUA was therefore reviewed by the full IBC, other than being reviewed only by the Biosafety Office.

N **R2078** Raybould, Helen Reviewer: az
Investigation of Milk Oligosaccharides and Beneficial Effects on Primary Human Infant Intestinal Cells
NIH Guidelines: N/A

APPROVED (14-0-0) at BSL2

N **R2132** Wessells, Kimberly Reviewer: vx
Micronutrient absorption, metabolism and status in populations at risk of deficiency
NIH Guidelines: N/A

APPROVED (14-0-0) at BSL2

- This BUA covers work with human blood samples from a population with up to 15% HIV positive rate. The BUA was therefore reviewed by the full IBC, other than being reviewed only by the Biosafety Office.

BSL1

R **R2071** (Replacing 1019) Siegel, Justin Reviewer: vx
Computationally designed enzymes produced in E. coli
 NIH Guidelines: IIIE, IIIF8, App C-II
APPROVED (14-0-0) at BSL1

R **R2085** (Replacing 0719) Harmer, Stacey Reviewer: az
Molecular Mechanisms of Circadian Regulation in Arabidopsis
 NIH Guidelines: IIIE2
APPROVED (14-0-0) at BSL1

- Training is missing

R **R2108** (Replacing 1027) Zwieniecki, Maciej Reviewer: az
Physiological Role of Aquaporins in Response to Drought in Transgenic Poplars
 NIH Guidelines: IIIE2
APPROVED (14-0-0) at BSL1

- Poplars do not have gametes
- The PI is the only authorized person
- Remove “lab coat” at greenhouse, but clarify that eye protection is needed when using bleach

R **R2135** (Replacing 0615) [REDACTED] Reviewer: jb
Research involving feline coronaviruses, FIPV and FECV
 NIH Guidelines: N/A
APPROVED (14-0-0) at BSL1

- A Medical Waste Management Plan is needed
- Indicate that virus will be added to “vertebrate”
- No access to other cat facility after working with virus

B. Amendments:

BIO amendment:

BSL2

R**1653** Hovey, Russell Reviewer: vx
Analysis of hormonally responsive promoter sequences
 NIH Guidelines: IIID3a, IIID4b
APPROVED (14-0-0) at BSL1

The PI is the only one doing the work – they’ve already made post-exposure prophylaxis arrangements with Dr. Belcourt (Occupational Health physician).

R1682 Heyer, Wolf Reviewer: vx
Mechanisms and Regulation of Homologous Recombination
NIH Guidelines: IID3a
APPROVED (14-0-0) at BSL1

R1968 [REDACTED] Reviewer: jb
Aquatic Animal Health Research
NIH Guidelines: IID1a
CONDITIONALLY APPROVED (14-0-0) at BSL1
The IBC requested that the following comment(s) be addressed before final approval is granted:

- Risk Assessment section needs to clarify:
 - Confirm whether the Salmonella strain is attenuated.
- Biosafety Office to review SOP for facility
- Clarify the size and volume of the aquaponics system for spill clean up

NHP only

R1688 [REDACTED] Reviewer: jb
Neural-immune and Brain-gut interactions
NIH Guidelines: N/A
APPROVED (14-0-0) at BSL2

- rDNA training
- Define “addressed accordingly”, in case of exposure
- Use a BSC for micro-dissection, if not use face shield and surgical mask

Add storage of agents only

R1893 Pesavento, Patricia Reviewer: az
Viral pathogenesis of newly discovered veterinary viruses
NIH Guidelines: N/A
APPROVED (14-0-0)

Amendment on SmartSite (old form):

BSL2

1050 [REDACTED] Reviewer: jb
Therapeutic and prophylactic interventions against agents of chronic infection including HIV and HCV
NIH Guidelines: IIIE
APPROVED (14-0-0) at BSL2

- Clarify what rhCMV will be obtained from Dr. Barry
- Risk Assessment needs sentence about what to do if someone is exposed

BSL1

0924-01B Lein, Pamela Reviewer: vx
Cellular and molecular mechanisms of neurotoxicity
NIH Guidelines: IIIE1
APPROVED (14-0-0) at BSL1

Draper left meeting

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

R **R2058** (Replacing 0225) Dandekar, Abhaya Reviewer: az
Citrus Health and Management
NIH Guidelines: IIID, IIIE
Conditional Approval Date: 10/19/2015

D. Terminated BUAs:

0718 [REDACTED] Reviewer: nld
Ecological genetics and population health of wildlife
Exp date: 07/05/2016

V. Discussion Items:

1. BUAs required for CNPRC investigators who use NHP or NHP source materials (including cells)? – Barruel

Guests: Niki Drazenovich and Greg Hodge arrived

- The Safety Officers from CCM and the CNPRC requested that the IBC not require BUAs from CNPRC investigators for work with NHP source materials. Their arguments are outlined below.
 - The NHP tissue, cells, and blood are not covered by the Bloodborne Pathogens Standard.
 - The CNPRC already has an internal safety program and asking for a BUA is unnecessary.
 - CNPRC PIs should be exempt, but all other UC Davis PIs who work with non-human primate tissue, cells, and blood should be required to have a BUA (because they don't already have a safety program).
- The IBC deferred further discussion on this topic to the December IBC meeting.

Jacobsen left, Tsolis joined meeting

2. Vivarium Hazard Safety Sheet to be approved by IBC and IACUC, attached to BUAs, and used by animal caretakers – Zweifel
 - Postponed to December meeting
3. Changes to IBC review assignments – Barruel
APPROVED (12-0-1)
 - BBP-only BUAs will be designated to the Biosafety Office for review. When the meeting agenda is sent to the IBC, the members will have until 5pm on Thursday afternoon to send their objections to the designated review method and request that certain BUAs be reviewed by the full committee. If there are no objections to designated review method, then the Biosafety Office can perform the review and approve BUAs, as appropriate.

- Plant- or animal-only pathogen BUAs will be designated to certain IBC members for review. When the meeting agenda is sent to the IBC, the members will have until 5pm on Thursday afternoon to send their objections to the designated review method and request that certain BUAs be reviewed by the full committee. If there are no objections to designated review method, then the IBC members assigned as reviewers can perform the review and approve BUAs, as appropriate.
4. Report to NIH OBA for possible exposure to recombinant virus in Dr. Wexler's laboratory – Barruel
APPROVED (12-0-1)
 5. IBC future meeting days - Barruel
APPROVED (12-0-1)
 - Biosafety Office request to move the IBC meeting days from the third Mondays of the month to the fourth Mondays of the month. The extra time will give the Biosafety Office more time to pre-review submissions.
 6. CNPRC and Vet Med PCR Lab diagnosis of tularensis infection of a non-human primate – Barruel
A deceased non-human primate was found, after necropsy, to have had a naturally-occurring tularensis infection. The CNPRC submitted a Select Agent Form 3 and the Vet Med PCR Lab submitted a Select Agent Form 4 to the Federal Select Agent Program.
 7. The IBC Chair – Barruel
Dr. Angela Gelli, will be on sabbatical next year from January to June. The IBC Vice Chair (Gerhard Bauer) will be the interim Chair, but the IBC will need a Vice Chair. The IBC will vote during the December meeting regarding who will be the interim IBC Vice Chair.

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information:

1. J1 BSL3 remediation is underway – Barruel
The extent of the water damage has been determined and the remediation work has already begun. Restoration of the facility will start soon after remediation. Consultants are helping find the root cause of the water leak so that it can be prevented from happening again. Section of facility damaged was not in use.

IX. Notifications:

1. USDA Notice of Noncompliance to Dr. Powell – Barruel
Dr. Anne Powell received a notice of non-compliance from the USDA for late submission of a planting report.

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 5:20 pm.

Institutional Biosafety Committee, UC Davis

Office of Environmental Health and Safety

Minutes

December 18, 2015 (10:00 AM – 11:55 AM)

Hoagland Hall, Rm 130

In attendance:

| | |
|----------------|---|
| Angela Gelli | Voting Member, Chair, Pharmacology |
| Gerhard Bauer | Voting Member, Vice-Chair, IM Div. of Hematology/Oncology |
| Philip Barruel | Voting Member, Biosafety Officer, Environmental Health and Safety |
| Roger Belcourt | Voting <i>Ex-Officio</i> Member, Director, Occupational Health Services |
| Sue Bodine | Voting Member, Neurobiology, Physiology, and Behavior; Representative, VA Northern California Health Care System |
| William Buhles | Voting Member, Public Member |
| Nicole Corley | Voting Member, Campus Veterinary Services |
| Bruce Draper | Voting Member, Molecular & Cellular Biology |
| Fred Jacobsen | Voting Member, Public Member |
| Johan Leveau | Voting Member, Plant Pathology |
| Victor Lukas | Voting <i>Ex-Officio</i> Member, Attending Veterinarian |
| Elizabeth Maga | Voting Member, Animal Science |
| Lyle Najita | Voting Member, Public Member |
| Renee Tsois | Voting Member, Medical Microbiology & Immunology |

IBC support staff in attendance:

| | |
|------------------|--|
| James Baugh | Associate Biosafety Officer, Environmental Health and Safety |
| Chelsea Schiano | High Containment Facility Officer, Environmental Health and Safety |
| Vivian Xian | Associate Biosafety Officer, Environmental Health and Safety |
| Adrienne Zweifel | Associate Biosafety Officer, Environmental Health and Safety |

Excused:

| | |
|-------------------------|--|
| Laurie Brignolo | Voting Member (Alternate), Campus Veterinary Services |
| Thomas Ferguson | Non-Voting <i>Ex-Officio</i> Member, Medical Director, SHCS |
| Diane Hoffman | Voting Member, School of Medicine Sponsored Programs |
| Fred Jacobsen | Voting Member, Public Member, Retired UCD |
| Johan Leveau | Voting Member, (Alternate), Plant Pathology |
| Betty Ma | Voting Member, (Alternate) Campus Veterinarian |
| Elizabeth Maga | Voting Member, Animal Science |
| Ioannis Stergiopoulos | Voting Member (alternate), Plant Pathology |
| Jill Blackwelder-Parker | Non-Voting <i>Ex-Officio</i> Member, Associate Vice Chancellor, Safety Services |
| Neil Speth | Non-Voting <i>Ex-Officio</i> Member, UCDMC Employee Health Services |
| Renee Tsois | Voting Member, Medical Microbiology & Immunology |

Guests:

| | |
|---------------|----------------------------|
| Pramod Pandey | Vet Med: Population Health |
| Brian Trainor | Psychology |

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

Belcourt and Buhles arrived

I. Review of past IBC meeting minutes:

November 16, 2015

APPROVED (10-0-0)

II. Announcements: None

III. Old Business: None

IV. New Business:

A. New and renewal BUAs for review:

BSL2

R R2113 (Replacing 0712)

[REDACTED]

Reviewer: jb

Immune Response to Intracellular Pathogens in Horses

NIH Guidelines: N/A

APPROVED (10-0-0) at BSL2

- Clarify with PI if all bacteria are used with cells. Only *Rhodococcus* was checked and others were marked as "N/A."
- Risk assessment section didn't mention all of the organisms. Include discussion of *Corynebacterium pseudotuberculosis*.
- Inverted microscope work is outside of a BSC, but they're not generating aerosols.
- *In-vitro* work only in a BSC.

R R2114 (Replacing 0899)

[REDACTED]

Reviewer: az

Beneficial effects of lactic acid bacteria and commensals associated with plants, foods and mammalian guts

NIH Guidelines: IIIE1

APPROVED (10-0-0) at BSL2

- Remove autoclave parameters (not needed in the BUA).
- Adding face shield to protect mouth and nose from splashes.
- Add a discussion of the experimental procedures in the risk assessment. Include adults in discussion of symptoms of infection with organisms.

R R2136 (Replacing 0799)

[REDACTED]

Reviewer: jb

Mechanism of the p53 family proteins-dependent tumor suppression

NIH Guidelines: IIID3b

APPROVED (10-0-0) at BSL2

- The transgenic mice have already been created under their previous BUA.

- ABSO can add list all the animals that have been generated and add summary statement of this research to experimental procedures.
- ABSO will confirm that mice will solely be used for extraction of MEF cells, and no further genetic modification of mice will occur.

N **R2148** Lewis, Jamal Reviewer: jb
A commensal bacteria-derived adjuvant for modulation of dendritic cell phenotype
 NIH Guidelines: N/A

APPROVED (10-0-0) at BSL2

- Phenol will be used to lyse anaerobic bacteria (out of a BSC).
- Remove statement about laundering lab coats every 3 months instead change to “will launder when soiled.”
- Edit the “Exposure Control Plan” to be specific for *Bacteroides*.
- Add to “risk assessment” that if there is an exposure they will consult with Occupational Health.

BBP only:

ALL ALREADY APPROVED BY BSO

R **R2095** (Replacing 1025B) Smilowitz, Jennifer Reviewer: vx
Foods for Health Institute – Bioactive Research
 NIH Guidelines: N/A

- Clarify what is meant by “cautions” in the text “cautions will be used to prevent personnel exposure.”
- Several personnel need updated training dates.

R **R2107** (Replacing 1029B) [REDACTED] Reviewer: az
Targeting the PI3K/Akt/mTOR signaling system in inflammatory diseases NIH
 Guidelines: N/A

- Clarify how the tissue samples from psoriasis patients will be administered to the mice.
- Include mention of training of personnel for their lab-specific bloodborne pathogens exposure control plan.
- In the “Authorized Personnel” section, the ATP question should not be checked as “yes.”

R **R2112** (Replacing 1030B) Kelley, Darshan Reviewer: vx
Functional characterization of bioactive phytonutrients and dietary fatty acids in liver cells
 NIH Guidelines: N/A

- Clarify what “hazardous procedures” will be involved when working with the liver cells.
- Include mention of training of personnel in lab-specific Bloodborne Pathogens Exposure Control Plan.
- Include mention of offer to personnel with the hepatitis B vaccine series.

N **R2159** Taha, Ameer Reviewer: az
Probing the lipidome in human blood and breast milk

NIH Guidelines: N/A

- Attach the lab-specific medical waste management plan and bloodborne pathogens exposure control plan.
- Update the training information.

BSL1

N R2156

Stem cell function in Hydra

NIH Guidelines: IIID4a, IIIF8, App C-II

APPROVED (10-0-0) at BSL1

Reviewer: vx

N R2160

Sciammas, Roger

Reviewer: az

Role of IRF4 in lymphocyte cell fate decisions

NIH Guidelines: IIID1, IIIE1

APPROVED (10-0-0) at BSL2

- Attenuated strains of *Listeria* will be used.
- Biosafety cabinets will not be used.
- Under the “risk assessment” provide more detail about what a “slight reaction” may be.

B. Amendments:

BIO amendment:

ABSL3

R1804

Alphavirus Arbovirus surveillance, vector competence and host pathogenesis

NIH Guidelines: N/A

APPROVED (10-0-0) at BSL2

- VM3B BSL3 was commissioned in 2013, but the facility does not include any ABSL3 rooms.
- The IACUC has approved use of this facility for animal housing.
- There are still two biosafety cabinets in the room. The facility also has a pass-thru autoclave.
- The research investigator worked in the J1 BSL3 facility, but has to temporarily relocate because of the water damage.
- Make sure that the SOPs will include a discussion of transporting and cleaning of cages.

Reviewer: cs

BSL2

R1606

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

NIH Guidelines: N/A

APPROVED (10-0-0) at BSL2

Reviewer: az

Guest Brian Trainor

R1650

Reviewer: jb

Effects of stress on brain and behavior

NIH Guidelines: N/A

APPROVED (10-0-0) at BSL2

Brian Trainor was able to answer the following questions during the IBC meeting:

- Very low chance of shedding the HSV vector due to the volumes used, vector construct, and the procedures employed.
- TRACS' typical practice regarding bedding from animals exposed to infectious or rDNA materials.

The principal investigator will treat the bedding with 10% bleach prior to disposal.

R1712

Calloway, Cassandra

Reviewer: vx

Human Forensic Biology Laboratory

NIH Guidelines: N/A

APPROVED (10-0-0) at BSL2

- Include mention of personnel training in lab-specific Bloodborne Pathogens Exposure Control Plan.
- Include mention of offer to personnel with hepatitis B vaccine series.
- Provide information for the added vaginal secretion samples
 - Provide the source for the samples.
 - Are the samples covered under an IRB protocol? If yes, list the IRB approval number.
 - Clarify if the samples are used for the forensic class.

R1723

Barlow, Jacqueline

Reviewer: vx

DNA replication and repair in B and T lymphocytes

NIH Guidelines: IIID3a

APPROVED (10-0-0) at BSL2

- Include discussion of insertional mutagenesis in case of auto-inoculation.

Amendment on SmartSite (old form):

BSL2

1065

Pandey, Pramod

Reviewer: jb

Pathogen Inactivation in Food Waste, Green Waste, and Dead Poultry

NIH Guidelines: N/A

TABLED (10-0-0)

The IBC requested PI to submit a revised BUA to address the comments listed below:

- Clarify the Risk Assessment for the work with adding 1 liter of a culture of pathogen into a 200 liter vessel.
 - Elaborate on your plan for containment of possible spills.
 - Consider substituting a non-pathogen as the inoculum
 - Define the highest infective dose and waste volumes.
 - Write SOP's (addressing machine failure, spill cleanup procedure, transport of materials, waste handling, emergency response, PPE)
 - Provide a complete risk assessment for the operation.

C. Storage only: None

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

R **R2084** (Replacing 1022B)

Reviewer: jb

Retinoic acid, its receptors, and the liver

NIH Guidelines: IID3a, IID4a

Conditional Approval Date: 11/16/2015s

R **1968**

Reviewer: jb

Aquatic Animal Health Research

NIH Guidelines: IID1a

Conditional Approval Date: 11/16/2015

E. Terminated BUAs:

0718

Reviewer: nld

Ecological genetics and population health of wildlife

Exp date: 07/05/2016

V. Discussion Items:

1. Vivarium Hazard Safety Sheet to be approved by IBC and IACUC, attached to BUAs, and used by animal caretakers – Zweifel

- PI will write up the safety sheet and then send over to the Biosafety team for review, edits, and approval.
- The VHSS will create a catalog that researchers can sue for biohazardous agents, for chemicals
- Adrienne will add items here and keep with the BUA
- It will also stay with the IACUC protocol
- This will make it consistent campus-wide

Formal vote was not taken but Vivarium Hazard Safety Sheet was presented and endorsed by the IBC.

2. BUAs required for CNPRC investigators who use NHP source materials (including cells)? – Barruel

- Postponed to January 2016 meeting – BSO will meet with legal counsel and CNPRC director before next meeting so that IBC can later make a decision.

3. IBC Vice Chair for the period from January 2016 to June 2016 – Barruel

- Gerhard Bauer will serve as Chair and Nicole Corley as Vice-Chair

APPROVED (9-0-1, Bauer and Corley abstained in turn)

4. 2016 CDPH medical waste inspection – Barruel

- CDPH will inspect the campus medical waste management program on January 28, 2016.

VI. Information Items: None

VII. IBC Training: None

VIII. BSL3 Laboratory Information: None

IX. Notifications: None

X. Subcommittee Topics: None

Adjournment: The meeting was adjourned at 11:55 am.