

WSU IBC Minutes
January 28, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Daniel Bradway*	Molecular Diagnostics
4.	David Clark	Research Compliance
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Linda Thomashow	USDA/ARS; Plant Pathology
7.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Mike Heston	Community Member; Pullman Fire Department
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital
3.	Hanu Pappu	Plant Pathology
4.	Steve Russell	Office of the Campus Vet

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Steve Potratz	Facilities Operations
3.	Dan Dreesman	CAHNRS Plant Growth Facilities
4.	Dennis Gransbury	USDA/ARS
5.	Patrick Reisenauer	Crop and Soil Sciences

* Arrived after the Call To Order.

I. Call to Order:

Meeting was called to order at 1:10 PM, with a quorum (6 members) present.

II. Announcements:

A. William Davis, the principal investigator of BAF #825, had intended to be present at the meeting in order to contest the required changes that the IBC required as a result of the review of #825 during the December 2012 meeting. However, due to a family emergency, he will not be able to attend.

III. Minutes – December 17, 2012

Approve. The motion was proposed by D. Clark, and seconded by M. Kluzik.

Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

D. Bradway arrived at the meeting at 1:12 PM (7 members)

IV. BSL – 1 BAFs

A. Renewals:

1. *Protocol Number:* **847-005** *Principal Investigator:* **Vonwettstein, Dietrich**
Protocol Title: **Transformation of microspores for generating transgenic wheat (Triticum aestivum L.) and barley (Hordeum vulgare)**
Facilities: **Inspections requested 1/23** *BSM:* **update requested 1/23**

Primary Reviewer: **L. Thomashow**

Second Reviewer: **P. Butterfield**

Discussion: the major concern was the use of *F. meningospeticum* (Flavobacterium), which is a BSL-2 organism. However, from the wording in the BAF, it is difficult to determine if the research will utilize the organism itself, or will utilize pre extracted prolylendopeptidases from the organism. If the former is the case, the research will need to be resubmitted for review at BSL-2. Clarification needed.

Additionally, the research involves cultivating transgenic plants in the field. The Agricultural Research Center (ARC) has several questions regarding this research which will need to be addressed prior to approval. Finally, the requested facility inspections and updated BSM have not been received.

Defer, pending clarification regarding the Flavobacterium concern, resolution of the ARC questions and approval of the facilities and BSM. If the research involves pre extracted prolylendopeptidases from the Flavobacterium, follow up and approval can be completed by the BSO, otherwise the research must be re-submitted as BSL-2, and approval is contingent upon the assigned reviewers, as well as the BSO. The motion was proposed by L. Thomashow, and seconded by E. Sheldon.

Total: 7 In favor: 7 Opposed: 7 **Motion Carried (7-0)**

2. *Protocol Number:* **989-007** *Principal Investigator:* **Dhingra, Amit**
Protocol Title: **Plant Genomics and Biotechnology for Crop Improvement**
Facilities: **Inspections requested 1/23** *BSM:* **update requested 1/23**

Primary Reviewer: **L. Thomashow**

Second Reviewer: **E. Shelden**

Discussion: This BAF is incomplete. There is no Summary of Work, and much of the information provided is vague.

Defer, pending completion of the BAF with more definitive information. The completed BAF will be reviewed by the convened IBC. The motion was proposed by L. Thomashow, and seconded by E. Sheldon.

Total: 7 In favor: 7 Opposed: 7 **Motion Carried (7-0)**

V. BSL – 2 BAFs

A. Renewals:

1. *Protocol Number:* **825-005** *Principal Investigator:* **Davis, William**
Protocol Title: **Role of IL-17, IL-22, IL-23 and Regulatory T-Cells in Pathogenesis of Johne's Disease and Crohn's Disease**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **Dan Bradway** *Second Reviewer:* **Steve Russell**

Discussion: the principal investigator was scheduled to attend the meeting, in order to justify the contents of the BAF. However, due to a family emergency, he was not able to be present. By common consensus, this review will be tabled until the February meeting of the IBC.

VI. Approved in the Interim

A. Administrative Approvals:

1. Principal Investigator: **Palmer, Guy**
Protocol Title: **Pathogen determinants of vector-borne transmission**
Protocol Number: **600-013**
Primary Reviewer: **M. Kluzik**
 - 12/19/12: personnel amendment approved.
2. Principal Investigator: **Shah, Devendra**
Protocol Title: **Gene knockouts and recombinant proteins**
Protocol Number: **1099-004**
Primary Reviewer: **M. Kluzik**
 - 1/7/13: change in location and personnel amendment approved.
3. Principal Investigator: **Call, Douglas**
Protocol Title: **Gene Knockouts and Recombinant Proteins**
Protocol Number: **814-010**
Primary Reviewer: **P. Conner**
 - 1/28/13: personnel amendment approved.
4. Principal Investigator: **Call, Douglas**
Protocol Title: **Detection and Characterization of Bacterial Isolates & Comparative Genomics**
Protocol Number: **923-010**
Primary Reviewer: **P. Conner**
 - 1/28/13: personnel amendment approved.

B. Other Approvals:

1. Principal Investigator: **Xun, Luying**
Protocol Title: **Biochemistry and Physiology of S-glutathionyl-(chloro)hydroquinone reductases**
Protocol Number: **791-006**
Primary Reviewer: **P. Butterfield** Secondary Reviewer: **M. Kluzik**

- 11/14/11: Deferred by IBC, pending clarification to DNA source and precautions taken for pathogenic bacteria in the soil.
 - 1/17/12: BSO to follow-up with reviewer for clarification on requirements.
 - 12/17/12: Approved by both reviewers.
2. Protocol Number: **1146-001** Principal Investigator: **Shah, Devendra**
 Protocol Title: **Genomics and Proteomics of Campylobacter spp.**
 Primary Reviewer: **G. Trobridge** Second Reviewer: **A. Nkwonta**
- 6/25/12: Deferred by IBC pending resubmission on the current iteration of the BAF.
 - 1/16/13: BAF resubmitted on current form and approved.
3. Protocol Number: **1082-006** Principal Investigator: **Shah, Devendra**
 Protocol Title: **Patho-genomics of pathogenic and non-pathogenic isolates of Salmonella spp.**
 Primary Reviewer: **G. Trobridge** Second Reviewer: **S. Russell**
- 6/25/12: Deferred by IBC pending revision to the BAF to reflect the use of HeLa cells.
 - 1/7/13: BAF approved after revision.
4. Protocol Number: **953-004** Principal Investigator: **Dong, Wenji**
 Protocol Title: **Kinetic of Cardiac Myofilament Activation**
 Primary Reviewer: **G. Trobridge** Second Reviewer: **P. Butterfield**
- 8/27/12: Deferred by IBC, pending an updated abstract and personnel clarification.
 - 1/7/13: BAF approved after revision.

VII. Deferred BAFs

1. Protocol Number: **927-004** Principal Investigator: **Vonwettstein, Dietrich Holger**
 Protocol Title: **Betaglucanase, Chitinase Expression in Barley**
 Primary Reviewer: **P. Butterfield** Second Reviewer: **L. Thomashow**
- 3/26/12: Deferred by IBC pending field planting approval by USDA-ARC.
2. Protocol Number: **934-005** Principal Investigator: **Hines, Stephen**
 Protocol Title: **Immunity to Rhodococcal Pneumonia in Foals: Lipids as Immune Targets and Adjuvant**
 Primary Reviewer: **D. Bradway** Second Reviewer: **M. Kluzik**
- 6/25/12: Deferred by IBC pending clarification on the host PG-13.
3. Protocol Number: **1154-001** Principal Investigator: **Walker, Brendan**
 Protocol Title: **Viral Vector-Mediated Conditional Gene Excision**
 Primary Reviewer: **E. Sheldon** Second Reviewer: **S. Russell**

- 8/27/12: deferred by the IBC, pending updated abstract, approval of the BSM and lab facilities.
4. Protocol Number: **894-005** Principal Investigator: **Sischo, William**
 Protocol Title: **Emergence of Zoonotic Food and Water-Borne MDR-Salmonella and E coli**
 Primary Reviewer: **P. Butterfield** Second Reviewer: **S. Russell**
 - 8/27/12: Deferred by IBC, pending submission of the abstract, completion of Section 3 and approval of the BSM and lab facilities.
 5. Protocol Number: **975-004** Principal Investigator: **Hulbert, Scot**
 Protocol Title: **Wheat Puccinia Interactions**
 Primary Reviewer: **L Thomashow** Second Reviewer: **M Kluzik**
 - 9/24/12: Deferred by IBC pending revision to the transport protocol and approval of the facilities and Biosafety Manual.
 - 1/28/13: reminder sent to PI, requesting the needed materials.
 6. Protocol Number: **1157-001** Principal Investigator: **Xu, Jun**
 Protocol Title: **Rodent Models for Human Neuropsychiatric Disorders**
 Primary Reviewer: **D Bradway** Second Reviewer: **S. Russell**
 - 9/24/12: Deferred by IBC pending revision to the BAF and approval of the facilities and Biosafety Manual.
 7. Protocol Number: **1068-003** Principal Investigator: **Schwartz, Elissa**
 Protocol Title: **Studies of Cell Growth and Immunological Activity**
 Primary Reviewer: **G. Trobridge** Second Reviewer: **M. Kluzik**
 - 7/23/12: deferred by IBC, pending removal of HIV-1 from the list of agents and the facility inspections.
 - 10/22/12: Re-reviewed by IBC. Deferred, pending revision to the deactivation methods in the BAF, Phillies and BSM.
 8. Protocol Number: **983-004** Principal Investigator: **Campbell, Bonnie**
 Protocol Title: **Sequencing and Cloning of Canine and Feline Trefoil Peptides**
 Primary Reviewer: **Eric Shelden** Second Reviewer: **Adi Nkwonta**
 - 12/17: deferred by convened IBC, pending revisions to the BAF and approval of the BSM and facilities.
 9. Protocol Number: **991-004** Principal Investigator: **Li, Hong**
 Protocol Title: **Immunological intervention of malignant catarrhal fever virus-induced disease in ruminants**
 Primary Reviewer: **Steve Russell** Second Reviewer: **Grant Trobridge**
 - 12/17: Deferred by convened IBC, pending clarifications.
 10. Protocol Number: **825-005** Principal Investigator: **Davis, William**
 Protocol Title: **Role of IL-17, IL-22, IL-23 and Regulatory T-Cells in Pathogenesis of Johne's Disease and Crohn's Disease**
 Facilities: **Bustad rooms need inspection BSM: Current**
 Primary Reviewer: **Dan Bradway** Second Reviewer: **Steve Russell**

- 12/17: deferred by convened IBC, pending revisions
- 12/21: PI requested to defend the BAF as submitted. BAF review carried forward to January Agenda.

VIII. Adjournment

The meeting adjourned at 1:33 PM.

WSU IBC Minutes
February 25, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Daniel Bradway*	Molecular Diagnostics
3.	David Clark	Research Compliance
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Hanu Pappu	Plant Pathology
7.	Linda Thomashow	USDA/ARS; Plant Pathology
8.	Grant Trobridge	Interim IBC Chair; College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital
3.	Steve Russell	Office of the Campus Vet

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Dennis Gransbury	USDA/ARS
3.	William Davis	PI, BAF #825

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 1:12 PM with a quorum (7 members) present.

II. Announcements:

None.

III. Minutes – January 28, 2012

Approve. Motion was proposed by D. Clark and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

D. Bradway arrived at the meeting at 1:14 PM (8 members)

IV. BSL – 1 BAFs

A. Renewals:

1. *Protocol Number: 1101-002 Principal Investigator: Pavek, Mark*
Protocol Title: Potato Variety Research

Facilities: Current

BSM: N/A

Primary Reviewer: L. Thomashow

Secondary Reviewer: M. Kluzik

Discussion: there were two primary concerns. The first is that the documents submitted did not include the APHIS permit, which left questions about containment and disposal unanswered. Second, the efficacy of the proposed method of deactivation, freezing and then tilling back into the soil, was questioned. No supporting documentation was submitted that justified this means of deactivation.

Before approval, the APHIS permit will need to be reviewed (which may support the proposed means of deactivation), and the proposed means of deactivation must be either justified or changed.

Defer, pending the completion of the above requirements. The motion was proposed by L. Thomashow and seconded by D. Bradway.

Total: 8 In favor: 8 Opposed: 0 **Motion carried (8-0)**

William Davis, PI of BAF #825, arrived at 1:22 PM and the agenda was rearranged in order to accommodate his presence.

V. BSL – 2 BAFs

A. Renewals:

- 1. Protocol Number: 825-005** *Principal Investigator: Davis, William*
Protocol Title: Role of IL-17, IL-22, IL-23 and Regulatory T-Cells in Pathogenesis of Johne's Disease and Crohn's Disease
Facilities: Current *BSM: Current*

Primary Reviewer: D. Bradway

Second Reviewer: S. Russell

Discussion: The PI explained much of the procedures to the IBC, and addressed the major concern from previous reviews of this BAF, which was an assertion that the mutant strain of MAP would not shed from inoculated animals. The PI clarified that this mutant strain had been used before, without any evidence of shedding, as measured by both culture and PCR. Additionally, the mutant strain of MAP was not evident during necropsy.

Before approval, the assertion that the MAP would not be shed needs to reference the previous research in order to support this assertion. Additionally, the animal containment does not really meet the requirements for ABSL-1, and the containment level should be changed to "Other."

The end of the discussion, M. Heston departed the meeting. Quorum was maintained (7 members).

Defer, pending the completion of the above the revisions to the BAF. The revisions will be evaluated by the primary and secondary reviewers. The motion was proposed by G. Trobridge and seconded by D. Bradway.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

VI. BSL – 1 BAFs

A. Renewals:

2. *Protocol Number: 883-006* *Principal Investigator: Lange, Bernd*
Protocol Title: Regulation of Isoprenoid Biosynthesis in Plants
Facilities: Current *BSM: Current*

Primary Reviewer: P. Butterfield *Secondary Reviewer: H. Pappu*

Discussion: there were no concerns voiced or changes required.

Approve. Motion was proposed by H. Pappu and seconded by L Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

VII. BSL – 2 BAFs

A. Renewals:

2. *Protocol Number: 1099-004* *Principal Investigator: Shah, Devendra*
Protocol Title: Gene knockouts and recombinant proteins
Facilities: Current *BSM: Current*

Primary Reviewer: E. Shelden *Second Reviewer: G. Trobridge*

Discussion: there were no concerns voiced or changes required.

Approve. Motion was proposed by G. Trobridge and seconded by M. Kluzik.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

3. *Protocol Number: 1003-004* *Principal Investigator: Sicho, William*
Protocol Title: Emergence of Zoonotic Food and Water-Borne MDR-Salmonella, E coli, Campylobacter, and Cryptosporidia
Facilities: current *BSM: current*

Primary Reviewer: D. Bradway *Second Reviewer: D. Clark*

Discussion: the only concern that the IBC had was that the PI had incorrectly indicated that the Shiga toxic E. coli was not an animal hazard. This change may be performed administratively.

Approve with the above administrative change. Motion was proposed by G. Trobridge and seconded by D. Bradway.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

4. *Protocol Number: 1103-003* *Principal Investigator: Chew, Boon*
Protocol Title: Uroepithelial Cell Bacteria Adhesion Assay Development
Facilities: inspections assigned to ORA 2.12 *BSM: Under Review*

Primary Reviewer: P. Butterfield Second Reviewer: A. Nkwonta

Discussion: In section three, the PI has incorrectly indicated that the listed agents were not an animal hazard and has not correctly assessed the biohazardous potential, characterizing it as nonexistent or minimal. Additionally, in section five, there is no procedure for inactivation of the human derived materials, simply stating that they will be thrown into a biohazard box.

Before approval, section three will need to be revised to indicate that the agents are animal hazards and the biohazard potential reassessed, and the method of human material deactivation revised, such as autoclave before being placed in to a biohazard box or placed in a biohazard box destined for the incinerator.

Defer, pending the above revisions to the BAF, facility review and approval of the BSM. The revisions may be evaluated and the BAF approved by the BSO. The motion was proposed by G. Trobridge and second by M. Kluzik.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

B. Amendments:

1. *Protocol Number: 1114-002 Principal Investigator: Scoles, Glen*
Protocol Title: Determinants of Anaplasma marginale transmission at the vector/pathogen interface AND Immunologic and Pharmacological Interventions of Vector-Borne Babesiosis
Facilities: Current BSM: Current

Primary Reviewer: S. Russell Secondary Reviewer: M. Kluzik

Discussion: there were no concerns voiced or changes required.

Approve. Motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

VIII. BSL – 3 BAFs

A. New Protocols:

1. *Protocol Number: 1164-002 Principal Investigator: Celli, Jean*
Protocol Title: Molecular mechanisms of Brucella abortus intracellular pathogenesis
Facilities: Current BSM: Current

Primary Reviewer: D. Bradway Secondary Reviewer: D. Clark

Discussion: The portion of section five regarding a blood borne pathogen exposure control plan was incomplete. However, as clarified by M. Kluzik the unanswered questions may all be answered “yes.” This can be done administratively. There were no other concerns.

Approve with above administrative change. The motion was proposed by G Trobridge and seconded by M Kluzik.

Total: 7 In favor: 7 Opposed: 0 **Motion carried (7-0)**

IX. Approved in the Interim

A. Administrative Approvals:

1. *Protocol Number: 384-006* *Principal Investigator: Okita, Thomas*
Protocol Title: Studies on RNA Localization and Starch Regulation in Plants
Primary Reviewer: M. Kluzik
 - 1/24/13: Amendment to add three new rooms in Abelson approved by BSO.
2. *Protocol Number: 1040-005* *Principal Investigator: Neff, Michael*
Protocol Title: Translating fundamental plant research into improved agronomic traits in crops.
Primary Reviewer: M. Kluzik
 - 1/24/13: Amendment to add three new rooms in Abelson approved by BSO.
3. *Protocol Number: 1150-002* *Principal Investigator: Sengupta, Parijat*
Protocol Title: Probing Neuronal Network Activity with Light in Real Time
Primary Reviewer: M. Kluzik
 - 2/5/13: Amendment to add personnel approved by BSO.
4. *Protocol Number: 867-010* *Principal Investigator: Konkel, Michael*
Protocol Title: A novel approach to identify the virulence proteins secreted by Campylobacter jejuni
Primary Reviewer: M. Kluzik
 - 2/11/13: Amendment to add new rooms approved by BSO.
5. *Protocol Number: 1091-006* *Principal Investigator: Elling, Axel*
Protocol Title: Biology of Plant-Parasitic Nematodes
Primary Reviewer: M. Kluzik
 - 2/18/13: Amendment to add FMIC approved by BSO.

B. Other Approvals:

1. *Protocol Number: 927-004* *Principal Investigator: Vonwettstein, Dietrich*
Protocol Title: Betaglucanase, Chitinase Expression in Barley
Primary Reviewer: P. Butterfield *Second Reviewer: L. Thomashow*
 - 3/26/12: Deferred by IBC pending field planting approval by USDA-ARC.
 - 2/7/13: USDA-ARC response that BAF is satisfactory received. BAF approved.
2. *Protocol Number: 975-004* *Principal Investigator: Hulbert, Scot*
Protocol Title: Wheat Puccinia Interactions

Primary Reviewer: *L Thomashow* Second Reviewer: *M Kluzik*

- 9/24/12: Deferred by IBC pending revision to the transport protocol and approval of the facilities and Biosafety Manual.
- 2/1/13: PI has submitted the facility inspections and updated BSM for review.
- 2/8/13: BAF approved.

3. Protocol Number: 1068-003 Principal Investigator: Schwartz, Elissa
Protocol Title: Studies of Cell Growth and Immunological Activity

Primary Reviewer: *G. Trobridge* Second Reviewer: *M. Kluzik*

- 7/23/12: deferred by IBC, pending removal of HIV-1 from the list of agents and the facility inspections.
- 10/22/12: Re-reviewed by IBC. Deferred, pending revision to the deactivation methods in the BAF, facilities, and BSM.
- 2/18/13: BAF administratively updated, BSM with HIV PSDS, and FR approved, BAF approved.

4. Protocol Number: 847-005 Principal Investigator: Vonwettstein, Dietrich
Protocol Title: Transformation of microspores for generating transgenic wheat (*Triticum aestivum* L.) and barley (*Hordeum vulgare*)

Facilities: Inspections requested 1/23

BSM: update requested 1/23

Primary Reviewer: L. Thomashow

Second Reviewer: P. Butterfield

- 1/28/13: deferred by convened IBC, pending clarification on one agent, and possible resubmission at BSL-2, as well as the BSM and facility approvals.
- 2/12/13: BAF clarification has been received, no further concern regarding the agent. BSO sent a reminder request for FR and BSM.
- BSM and facilities approved. BAF approved.

C. Other:

1. Protocol Number: 894-005 Principal Investigator: Sischo, William
Protocol Title: Emergence of Zoonotic Food and Water-Borne MDR-Salmonella and E coli

Primary Reviewer: *P. Butterfield*

Second Reviewer: *S. Russell*

- 8/27/12: Deferred by IBC, pending submission of the abstract, completion of Section 3 and approval of the BSM and lab facilities.
- 2/18/13: Withdrawn by PI. Protocol Deactivated.

X. Deferred BAFs

1. Protocol Number: 934-005 Principal Investigator: Hines, Stephen
Protocol Title: Immunity to Rhodococcal Pneumonia in Foals: Lipids as Immune Targets and Adjuvant

Primary Reviewer: *D. Bradway*

Second Reviewer: *M. Kluzik*

- 6/25/12: Deferred by IBC pending clarification on the host PG-13.
- 2/25/13: The PI will be sent a final request to address IBC comments.

2. Protocol Number: **1154-001** Principal Investigator: **Walker, Brendan**
 Protocol Title: **Viral Vector-Mediated Conditional Gene Excision**
 Primary Reviewer: **E. Sheldon** Second Reviewer: **S. Russell**
 - 8/27/12: deferred by the IBC, pending updated abstract, approval of the BSM and lab facilities.
3. Protocol Number: **894-005** Principal Investigator: **Sischo, William**
 Protocol Title: **Emergence of Zoonotic Food and Water-Borne MDR-Salmonella and E coli**
 Primary Reviewer: **P. Butterfield** Second Reviewer: **S. Russell**
 - 8/27/12: Deferred by IBC, pending submission of the abstract, completion of Section 3 and approval of the BSM and lab facilities.
 - Withdrawn by PI. Protocol Deactivated.
4. Protocol Number: **1157-001** Principal Investigator: **Xu, Jun**
 Protocol Title: **Rodent Models for Human Neuropsychiatric Disorders**
 Primary Reviewer: **D Bradway** Second Reviewer: **S. Russell**
 - 9/24/12: Deferred by IBC pending revision to the BAF and approval of the facilities and Biosafety Manual.
5. Protocol Number: **983-004** Principal Investigator: **Campbell, Bonnie**
 Protocol Title: **Sequencing and Cloning of Canine and Feline Trefoil Peptides**
 Primary Reviewer: **Eric Sheldon** Second Reviewer: **Adi Nkwonta**
 - 12/17: deferred by convened IBC, pending revisions to the BAF and approval of the BSM and facilities.
 - 2/8/13: Request for FR and BSM sent to PI.
 - 2/25/13: FR and BSM submitted for review.
6. Protocol Number: **991-004** Principal Investigator: **Li, Hong**
 Protocol Title: **Immunological intervention of malignant catarrhal fever virus-induced disease in ruminants**
 Primary Reviewer: **Steve Russell** Second Reviewer: **Grant Trobridge**
 - 12/17: Deferred by convened IBC, pending clarifications.
 - 2/12/13: Clarification requested of APHIS.
7. Protocol Number: **825-005** Principal Investigator: **Davis, William**
 Protocol Title: **Role of IL-17, IL-22, IL-23 and Regulatory T-Cells in Pathogenesis of Johne's Disease and Crohn's Disease**
 Facilities: **Current** BSM: **Current**
 Primary Reviewer: **Dan Bradway** Second Reviewer: **Steve Russell**
 - 12/17: deferred by convened IBC, pending revisions
 - 12/21: PI requested to defend the BAF as submitted. BAF review carried forward to January Agenda.
 - 1/28/13: PI was unavailable for IBC Meeting. Re-review tabled until Feb 25 meeting.
8. Protocol Number: **989-007** Principal Investigator: **Dhingra, Amit**

Protocol Title: Plant Genomics and Biotechnology for Crop Improvement
Facilities: Inspections requested 1/23 *BSM: update requested 1/23*
Primary Reviewer: L. Thomashow *Second Reviewer: E. Shelden*

- 1/28/13: Deferred by convened IBC, pending more complete information in the BAF.
- 2/20/13: BSO reminded PI of need for BSM and FRs.

XI. Old Business

- A.** Continuing discussion on BSO administrative approvals of BSL-1 Submissions.
1. All BSL-1, or restrict to III-D and III-F? Just III-F?
 2. Example: New BAF received from Sue Marsh.

Discussion: This was not addressed and will be carried forward to the March meeting.

XII. Adjournment

The meeting adjourned at 2:35 PM.

WSU IBC Minutes
March 25, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Daniel Bradway*	Molecular Diagnostics
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Adi Nkwonta	Community Member; Pullman Regional Hospital
7.	Steve Russell	Office of the Campus Vet
8.	Linda Thomashow	USDA/ARS; Plant Pathology
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	David Clark	Research Compliance
2.	Hanu Pappu	Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Dennis Gransbury*	USDA/ARS

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:10, with a quorum (8 members) present.

II. Minutes – February 25, 2012

Approve. The motion was proposed by M. Kluzik and seconded by G. Trobridge.

Total: 8 **In Favor:** 8 **Opposed:** 0 **Motion Carried (8-0)**

III. BSL – 1 BAFs

A. New Protocols:

- 1. Protocol Number: 1165-001 Principal Investigator: Marsh, Sue**
Protocol Title: Epigenetic Regulation of Hypertrophy in Cardiomyocytes
Facilities: Current BSM: Current

Primary Reviewer: M. Kluzik Secondary Reviewer: P. Butterfield

During the discussion, D. Bradway arrived at the meeting (9 members).

Discussion: The research does use recombinant DNA, but the strain of E coli is a K – 12 derivative and is exempt.

Approve. The motion was proposed by M. Kluzik and seconded by P. Butterfield.

Total: 9 **In Favor:** 9 **Opposed:** 0 **Motion Carried (9-0)**

IV. BSL – 2 BAFs

A. Renewals:

1. *Protocol Number:* **1102-002** *Principal Investigator:* **Ye, Ping**
Protocol Title: **Elucidating Functional and Regulatory Pathways Controlling Meiotic Entry in Animals**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **S. Russell** *Secondary Reviewer:* **G. Trobridge**

Discussion: There were no concerns and no required changes.

Approve. The motion was proposed by S. Russell and seconded by G. Trobridge.

Total: 9 **In Favor:** 9 **Opposed:** 0 **Motion Carried (9-0)**

2. *Protocol Number:* **1100-004** *Principal Investigator:* **Stanton, James**
Protocol Title: **Identifying Cofactors for Prion Accumulation**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **D. Bradway** *Secondary Reviewer:* **E. Shelden**

Discussion: While not infectious to humans, the viral agent used in the research is infectious. Therefore the NIH category in Section 4 should be III-D, D-3, rather than III-E. This change can be made administratively, as it does not change any of the procedures or BSL.

Defer, pending completion of the above change (with PI agreement). Follow-up and approval may be completed by the BSO. The motion was proposed by E. Shelden and seconded by M. Kluzik.

Total: 9 **In Favor:** 9 **Opposed:** 0 **Motion Carried (9-0)**

B. Amendments:

1. *Protocol Number:* **1151-003** *Principal Investigator:* **Petrova, Adelina**
Protocol Title: **Host-Insect Molecular Interactions**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **L. Thomashow** *Secondary Reviewer:* **M. Kluzik**

Discussion: There were no concerns and no required changes.

Approve. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 9 **In Favor: 9** **Opposed: 0** **Motion Carried (9-0)**

V. Approved in the Interim

A. Administrative Approvals:

1. *Protocol Number:* **942-005** *Principal Investigator:* **McElwain, Terry**
Protocol Title: **Zoonotic Disease Surveillance**
Primary Reviewer: **M. Kluzik**

- 2/22/13: Addition of several rooms in the Allen Center approved by BSO.

2. *Protocol Number:* **1069-005** *Principal Investigator:* **Lewis, Norman**
Protocol Title: **Product Diversification Strategies for a New Generation of Biofuels/Bioproducts and Medicinals**
Primary Reviewer: **M. Kluzik**

- 2/28/13: Amendment to add FMIC to the facilities list approved by BSO.

3. *Protocol Number:* **1150-003** *Principal Investigator:* **Sengupta, Parijat**
Protocol Title: **Probing Neuronal Network Activity with Light in Real Time**
Primary Reviewer: **M. Kluzik**

- 3/5/13: Personnel amendment approved by BSO.

4. *Protocol Number:* **1163-002** *Principal Investigator:* **Knodler, Leigh**
Protocol Title: **Probing Neuronal Network Activity with Light in Real Time**
Primary Reviewer: **M. Kluzik**

- 3/5/13: Amendment to add *Shigella flexneri* to the list of agents approved by BSO.

B. Other Approvals:

1. *Protocol Number:* **1103-003** *Principal Investigator:* **Chew, Boon**
Protocol Title: **Uroepithelial Cell Bacteria Adhesion Assay Development**
Facilities: **inspections assigned to ORA 2.12** *BSM:* **Under Review**
Primary Reviewer: **P. Butterfield** *Second Reviewer:* **A. Nkwonta**

- 2/25/13: deferred pending revisions to the BAF, facility review and approval of the BSM.

- 3/5/13: BAF approved after revision and approval of the facilities and BSM.

2. *Protocol Number:* **825-005** *Principal Investigator:* **Davis, William**
Protocol Title: **Role of IL-17, IL-22, IL-23 and Regulatory T-Cells in Pathogenesis of Johne's Disease and Crohn's Disease**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Dan Bradway** *Second Reviewer:* **Steve Russell**

- 12/17: deferred by convened IBC, pending revisions

- 12/21: PI requested to defend the BAF as submitted. BAF review carried forward to January Agenda.

- 1/28/13: PI was unavailable for IBC Meeting. Re-review tabled until Feb 25 meeting.

- 2/25/13: BAF deferred by convened IBC, pending revision.
 - 3/6/13: Revisions approved by reviewers. BAF approved.
3. *Protocol Number: 983-004* *Principal Investigator: Campbell, Bonnie*
Protocol Title: Sequencing and Cloning of Canine and Feline Trefoil Peptides
Primary Reviewer: Eric Shelden *Second Reviewer: Adi Nkwonta*
- 12/17: deferred by convened IBC, pending revisions to the BAF and approval of the BSM and facilities.
 - 2/8/13: Request for FR and BSM sent to PI.
 - 2/25/13: FR and BSM received and forwarded to BSO for review and approval.
 - 3/8/13: BAF after revision, BSM and FR approved.

VI. Deferred BAFs

1. *Protocol Number: 934-005* *Principal Investigator: Hines, Stephen*
Protocol Title: Immunity to Rhodococcal Pneumonia in Foals: Lipids as Immune Targets and Adjuvant
Primary Reviewer: D. Bradway *Second Reviewer: M. Kluzik*
- 6/25/12: Deferred by IBC pending clarification on the host PG-13.
 - 3/25/13: The PI will be contacted for the final time to make the requested revisions. If not completed, the BAF will be withdrawn and deactivated.
2. *Protocol Number: 1154-001* *Principal Investigator: Walker, Brendan*
Protocol Title: Viral Vector-Mediated Conditional Gene Excision
Primary Reviewer: E. Sheldon *Second Reviewer: S. Russell*
- 8/27/12: deferred by the IBC, pending updated abstract, approval of the BSM and lab facilities.
 - 3/25/13: As there has been no progress in identification of lab facilities, the PI will be advised to withdraw the BAF and resubmit when prepared to move forward.
3. *Protocol Number: 1157-001* *Principal Investigator: Xu, Jun*
Protocol Title: Rodent Models for Human Neuropsychiatric Disorders
Primary Reviewer: D Bradway *Second Reviewer: S. Russell*
- 9/24/12: Deferred by IBC pending revision to the BAF and approval of the facilities and Biosafety Manual.
 - 3/25/13: The PI has not yet obtained a BSC, which is necessary for approval.
4. *Protocol Number: 991-004* *Principal Investigator: Li, Hong*
Protocol Title: Immunological intervention of malignant catarrhal fever virus-induced disease in ruminants
Primary Reviewer: Steve Russell *Second Reviewer: Grant Trobridge*
- 12/17: Deferred by convened IBC, pending clarifications.
 - 2/12/13: Clarification requested of APHIS.
5. *Protocol Number: 989-007* *Principal Investigator: Dhingra, Amit*

Protocol Title: Plant Genomics and Biotechnology for Crop Improvement
Facilities: Inspections requested 1/23 *BSM: update requested 1/23*
Primary Reviewer: L. Thomashow *Second Reviewer: E. Shelden*

- 1/28/13: Deferred by convened IBC, pending more complete information in the BAF.

6. Protocol Number: 1101-002 *Principal Investigator: Pavek, Mark*

Protocol Title: Potato Variety Research

Facilities: Current

BSM: N/A

Primary Reviewer: L. Thomashow

Secondary Reviewer: M. Kluzik

- 2/25/13: BAF deferred pending submission of the APHIS permit and clarification of the method of deactivation.
- 3/25/13: The APHIS permit has been received, but does not resolve the question regarding deactivation. BSO will follow-up with PI.

VII. Old Business

A. Continuing discussion on BSO administrative approvals of BSL-1 Submissions.

1. All BSL-1, or restrict to III-D and III-F? Just III-F?
2. Example: New BAF received from Sue Marsh.

Discussion: The IBC concluded that these types of submissions were not onerous to review, and that they preferred to look at all protocols that were submitted.

VIII. Adjournment

The meeting adjourned at 13:37.

WSU IBC Minutes
April 22, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Grant Trobridge	Interim Chair; College of Pharmacy
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Adi Nkwonta	Community Member; Pullman Regional Hospital
6.	Steve Russell	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Daniel Bradway	Molecular Diagnostics
3.	Mike Heston	Community Member; Pullman Fire Department
4.	Hanu Pappu	Plant Pathology
5.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:12, with a quorum (6 members) present. In the absence of E. Shelden, G. Trobridge agreed to serve as Chair.

II. Minutes – March 25, 2012

Approve. Motion was proposed by P. Butterfield and seconded by M. Kluzik
Total: 6 In Favor: 6 Opposed: 0 Motion Carried (6-0)

III. BSL – 1 BAFs

A. Renewals:

1. Protocol Number: 992-004 Principal Investigator: Kennedy, Ann
Protocol Title: Naturally Occurring Cheatgrass-Suppressive Bacteria in Rangeland Restoration
Facilities: Current BSM: Current

Primary Reviewer: H. Pappu Secondary Reviewer: M. Kluzik

Discussion: there were no concerns voiced or changes required.

Approve. Motion was proposed by M. Kluzik and seconded by S. Russell.
Total: 6 In Favor: 6 Opposed: 0 Motion Carried (6-0)

IV. BSL – 2 BAFs

A. New Protocols:

1. *Protocol Number:* **1166-001** *Principal Investigator:* **Court, Michael**
Protocol Title: **Pharmacogenomic studies of drug response using healthy human tissues, cell lines, and hepatocytes**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **G. Trobridge** *Secondary Reviewer:* **A. Nkwonta**

Discussion: The only concern was a contradiction between Sections 3 and 5 of the BAF. Section 3 says that there are no vaccinations available for the agents used, and that no vaccinations will be required. However, Section 5 says that there is a plan in place to provide Hep B vaccinations. Given that the research involves human tissues, this contradiction is the result of errors in Section 3.

Required Changes:

- **BAF:**
 - Section 3, Infectious Agent table: change the human vaccination answers regarding the human Blood, liver and hepaticites from ‘No’ to ‘Yes.’
 - Section 3.3: Change the final sentence, “No vaccines will be required” to read, “HPV vaccines will be offered.”

These changes can be made administratively with PI approval.

Defer, pending completion of the required changes. Changes can be evaluated and approval granted by the BSO. Motion was proposed by G. Trobridge and seconded by D. Clark.

Total: 6 In Favor: 6 Opposed: 0 **Motion Carried (6-0)**

B. Renewals:

1. *Protocol Number:* **1108-005** *Principal Investigator:* **Beyenal, Haluk**
Protocol Title: **Multiple projects on biofilms**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **P. Butterfield** *Secondary Reviewer:* **A. Nkwonta**

Discussion: there were no concerns voiced or changes required.

Approve. Motion was proposed by P. Butterfield and seconded by A. Nkwonta.

Total: 6 In Favor: 6 Opposed: 0 **Motion Carried (6-0)**

V. Approved in the Interim

A. Administrative Approvals:

1. *Protocol Number:* **1054-003** *Principal Investigator:* **Thomashow, Linda**
Protocol Title: **Biological control and molecular genetics of root diseases of wheat, barley and biofuel brassicas**
Primary Reviewer: **M. Kluzik**

- 3/26/13: Revision to procedures approved administratively by BSO.

2. *Protocol Number:* **1167-001** *Principal Investigator:* **Lazarus, Phil**
Protocol Title: **Exemestane metabolic study for the personal treatment of breast cancer patients.**

Primary Reviewer: **M. Kluzik**

- 3/29/13: New BAF received.
- 4/5/13: BAF administratively approved by BSO.

3. *Protocol Number:* **205-010** *Principal Investigator:* **Browse, John**
Protocol Title: **Molecular Genetics of Lipid Synthesis in Plants**

Primary Reviewer: **M. Kluzik**

- 4/15/13: Amendment to add FMIC to the approved facilities approved by BSO.

B. Other Approvals:

1. *Protocol Number:* **1100-004** *Principal Investigator:* **Stanton, James**
Protocol Title: **Identifying Cofactors for Prion Accumulation**

Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **D. Bradway** *Secondary Reviewer:* **E. Shelden**

- 3/25/13: BAF Deferred by convened IBC, pending change to the NIH category for rDNA.
- 4/2/13: PI clarified the reasoning behind the original NIH category. BSO confirmed the reasoning with the NIH and approved the BAF.

VI. Deferred BAFs

1. *Protocol Number:* **934-005** *Principal Investigator:* **Hines, Stephen**
Protocol Title: **Immunity to Rhodococcal Pneumonia in Foals: Lipids as Immune Targets and Adjuvant**

Primary Reviewer: **D. Bradway** *Second Reviewer:* **M. Kluzik**

- 6/25/12: Deferred by IBC pending clarification on the host PG-13.
- 3/25/13: The PI will be contacted for the final time to make the requested revisions. If not completed, the BAF will be withdrawn and deactivated.

2. *Protocol Number:* **1154-001** *Principal Investigator:* **Walker, Brendan**
Protocol Title: **Viral Vector-Mediated Conditional Gene Excision**

Primary Reviewer: **E. Sheldon** *Second Reviewer:* **S. Russell**

- 8/27/12: deferred by the IBC, pending updated abstract, approval of the BSM and lab facilities.
- 3/25/13: As there has been no progress in identification of lab facilities, the PI will be advised to withdraw the BAF and resubmit when prepared to move forward.

3. *Protocol Number:* **1157-001** *Principal Investigator:* **Xu, Jun**
Protocol Title: **Rodent Models for Human Neuropsychiatric Disorders**

Primary Reviewer: **D Bradway** Second Reviewer: **S. Russell**

- 9/24/12: Deferred by IBC pending revision to the BAF and approval of the facilities and Biosafety Manual.
- 3/25/13: The PI has not yet obtained a BSC, which is necessary for approval.

4. Protocol Number: 991-004 Principal Investigator: Li, Hong

Protocol Title: Immunological intervention of malignant catarrhal fever virus-induced disease in ruminants

Primary Reviewer: Steve Russell Second Reviewer: Grant Trobridge

- 12/17: Deferred by convened IBC, pending clarifications.
- 2/12/13: Clarification requested of APHIS.

5. Protocol Number: 989-007 Principal Investigator: Dhingra, Amit

Protocol Title: Plant Genomics and Biotechnology for Crop Improvement

Facilities: Inspections requested 1/23 BSM: update requested 1/23

Primary Reviewer: L. Thomashow Second Reviewer: E. Shelden

- 1/28/13: Deferred by convened IBC, pending more complete information in the BAF.

6. Protocol Number: 1101-002 Principal Investigator: Pavek, Mark

Protocol Title: Potato Variety Research

Facilities: Current BSM: N/A

Primary Reviewer: L. Thomashow Secondary Reviewer: M. Kluzik

- 2/25/13: BAF deferred pending submission of the APHIS permit and clarification of the method of deactivation.
- 3/25/13: The APHIS permit has been received, but does not resolve the question regarding deactivation. BSO will follow-up with PI.

VII. Adjournment

The meeting adjourned at 13:30.

WSU IBC Minutes
May 20, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Daniel Bradway	Molecular Diagnostics
4.	David Clark*	Research Compliance
5.	Mike Heston	Community Member; Pullman Fire Department
6.	Mike Kluzik	Biosafety Officer; Research Compliance
7.	Hanu Pappu	Plant Pathology
8.	Steve Russell	Office of the Campus Vet
9.	Linda Thomashow	USDA/ARS; Plant Pathology
10.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Adi Nkwonta	Community Member; Pullman Regional Hospital

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Hong Li	PI, BAF #991
3.	Don Knowles	Co-PI BAF #991

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:11, with a quorum (9 members) present.

II. Announcements:

Hong Li and Don Knowles will be attending the meeting in order to answer questions regarding their BAF renewal.

III. Minutes – April 22, 2013

Approve as submitted. The motion was proposed by G Trobridge, and seconded by M Kluzik
Total: 9 In Favor: 9 Opposed: 0 **Motion Carried (9-0)**

IV. BSL – 1 BAFs

A. New Protocols:

1. *Protocol Number:* **1168-001** *Principal Investigator:* **Crespi, Erica**
Protocol Title: **Experimental infection of amphibians with Batrachochytrium dendrobatidis**
Primary Reviewer: **M. Kluzik** *Secondary Reviewer:* **S. Russell**

During the discussion, D. Clark arrived at the meeting (10 members).

Discussion: While there was some concern that dehydration was not an effective means of deactivation of the fungus, no changes to the BAF were required.

Approve as submitted. The motion was proposed by G Trobridge, and seconded by M Kluzik
Total: 10 In Favor: 10 Opposed: 0 **Motion Carried (10-0)**

2. *Protocol Number:* **1170-001** *Principal Investigator:* **Chandra, Murali**
Protocol Title: **Mechanistic understanding of troponin T role in cardiac thin filament activation**
Primary Reviewer: **E. Shelden** *Secondary Reviewer:* **L. Thomashow**

Discussion: Section 2 of the BAF contains confusing or incomplete information. Both human and transgenic vertebrate animal subjects are indicated, but these subjects role in the research is not described. The scope of work is also confusing. It is written in very technical language, and there is frequent use of undefined acronyms.

Required changes:

1. Revise the scope of work to use lay language and spell out acronyms.
2. Revise Section 2, Item B to include the ASAF number regarding vertebrate animal use.
3. Revise Section 2, Item D to include the IRB number regarding human participant use.
4. Revise Section 2, table G to list the animal species housed in the Veterinary Medical Research Building Vivarium.
5. Revise Section 2, list H to indicate the use of human participants.
6. Complete Section 5 of the BAF for the involvement of human participants.

Defer, pending completion of the above changes. The revised BAF will be reviewed and approved by the assigned reviewers and BSO. The motion was proposed by E. Shelden and seconded by D. Bradway.

Total: 10 In Favor: 10 Opposed: 0 **Motion Carried (10-0)**

V. **BSL – 2 BAFs**

A. **New Protocols:**

1. *Protocol Number:* **1169-001** *Principal Investigator:* **Fox, Lawrence**
Protocol Title: **Teat disinfectant efficacy against common mastitis pathogen types using an excised teat model: A test of 4 different products.**
Primary Reviewer: **D. Bradway** *Second Reviewer:* **A. Nkwonta**

Discussion: The only concern was that the BAF contended that the agents used were non-pathogenic to humans, while the IBC saw the potential for human infection (with the exception of *mycoplasma bovis*). The committee decided that the “Human Hazard” columns of the Infectious Agent table, with the exception of *mycoplasma bovis*, must be changed to ‘Yes,’ and the statement that there was no human hazard be removed from the answers to the questions following the table. The committee decided that these changes could be made administratively by the coordinator, and the BAF approved with PI agreement.

Approve with the administrative changes. The motion was proposed by D. Bradway, and seconded by P. Butterfield.

Total: 10 In Favor: 10 Opposed: 0 **Motion Carried (10-0)**

B. **Renewals:**

1. *Protocol Number:* **991-004** *Principal Investigator:* **Li, Hong**
Protocol Title: **Immunological intervention of malignant catarrhal fever virus-induced disease in ruminants**
Primary Reviewer: **S. Russell** *Second Reviewer:* **G. Trobridge**

Hong Li and Don Knowles were present to provide information and answer questions during the review.

Discussion: This is a re-review. The main reason that the BAF was not approved the first time was that an agent used in the research has been removed from the Select Agent list, but the BMBL has not changed the Biosafety Level from BSL-3. Historically, it was listed as a BSL-1 agent until the events of 9/11/2001, when it was added to the SA list and bumped to BSL-3. However, as the PI pointed out, the agent is only

easily transmissible from sheep to sheep, or sheep to cow, but not from cow to cow, except when injected. As a compromise, the PI has agreed to BSL-2, ABSL-2 containment. The committee agreed that this was reasonable, as APHIS is not anticipated to require BSL-3 containment in the next edition of the BMBL. The committee also felt that the Bison, housed in Wyoming, could be removed from the BAF, as no work with bison or bison tissue will be conducted at WSU. The only real concern was the selection of the NIH category III-D, D-4 on the BAF. The committee saw the D-3 category as more accurate, with the indications that the experiment would not enhance pathogenicity nor extend the host range. The researchers agreed to this change, as well as the removal of the bison and Wyoming facility. These changes can be made administratively, and the protocol can be approved.

Approve with the administrative changes. The motion was proposed by M. Kluzik and seconded by D. Bradway.

Total: 10 In Favor: 10 Opposed: 0 **Motion Carried (10-0)**

2. *Protocol Number:* **1106-003** *Principal Investigator:* **Lahmers, Kevin**
Protocol Title: **Molecular basis of nontyphoidal salmonella emergence**
Primary Reviewer: **P. Butterfield** *Second Reviewer:* **D. Bradway**

Discussion: The main concerns were that the research involves rDNA, but section 4 does not include the BSL of the DNA used. Additionally, the use of HEK-293 cells is considered involvement of human participants, but Section 5 was not included with the BAF. The BSO has already contacted the PI regarding Section 5, but has received a response as yet.

Required Changes:

1. Revise the Host/Vector portion of Section 4 to indicate the BSL of the DNA in use.
2. Complete and submit Section 5 of the BAF.

Defer, pending completion of the required changes. The motion was proposed by P. Butterfield, and seconded by D. Bradway.

Total: 10 In Favor: 10 Opposed: 0 **Motion Carried (10-0)**

C. Amendments:

1. *Protocol Number:* **1126-002** *Principal Investigator:* **Oatley, Jon**
Protocol Title: **Mechanisms of Spermatogonial Stem Cell Fate Decisions**
Primary Reviewer: **A. Nkwonta** *Second Reviewer:* **M. Kluzik**

Discussion: The Scope of Work is not sufficient. The procedures and aims are not well described. There is no location identified for the microscopy procedures. These must be improved for the IBC to be able to make specific recommendations for approval. The research will involve Macaque tissue, which is to be treated as containing Herpes B virus. BSL-2+ containment is needed and no sharps are to be present. Additionally, area health care facilities need to be informed of the Herpes B potential, in order to prepare treatment, in the event of exposure.

Required Changes:

1. Revise the Scope of Work to better describe the Aims and procedures
2. Revise the facilities list to include the microscopy room(s).

Defer, pending completion of the required changes. The revised BAF will be brought back to the convened IBC. The motion was proposed by M. Kluzik, and seconded by E. Shelden.

Total: 10 In Favor: 10 Opposed: 0 **Motion Carried (10-0)**

VI. BSL – 3 BAFs

A. Renewals:

1. *Protocol Number:* **824-005** *Principal Investigator:* **McElwain, Terry**
Protocol Title: **NAHLN: WA**

Primary Reviewer: **M. Kluzik** Secondary Reviewer: **D. Clark**

Member D. Bradway is a co-researcher for this project and abstained from the motion and vote.

Discussion: There were no concerns or changes required.

Approve. The motion was proposed by M. Kluzik and seconded by D. Clark

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

VII. Approved in the Interim

A. Administrative Approvals:

1. Protocol Number: **1122-002** Principal Investigator: **Brunner, Jesse**
Protocol Title: **Fear and Infections: Linking Host Behavior to Ranavirus Transmission in Amphibian Larvae**
Primary Reviewer: **M. Kluzik**

- 5/8/13: Amendment to add personnel and rooms in Heald Hall approved by BSO

B. Other Approvals:

1. Protocol Number: **1101-002** Principal Investigator: **Pavek, Mark**
Protocol Title: **Potato Variety Research**
Facilities: **Current** BSM: **N/A**
Primary Reviewer: **L. Thomashow** Secondary Reviewer: **M. Kluzik**
 - 2/25/13: BAF deferred pending submission of the APHIS permit and clarification of the method of deactivation.
 - 3/25/13: The APHIS permit has been received, but does not resolve the question regarding deactivation. BSO will follow-up with PI.
 - 5/6/13: After discussion, the reviewers were satisfied that the method of deactivation was acceptable, the BSM was approved and BAF approved.
2. Protocol Number: **1166-001** Principal Investigator: **Court, Michael**
Protocol Title: **Pharmacogenomic studies of drug response using healthy human tissues, cell lines, and hepatocytes**
Primary Reviewer: **G. Trobridge** Secondary Reviewer: **A. Nkwonta**
 - 4/22/13: Deferred by IBC, pending revisions to Section 3.
 - 5/7/13: PI agrees to the required changes.
 - 5/13/13: BAF approved.

VIII. Deferred BAFs

1. Protocol Number: **934-005** Principal Investigator: **Hines, Stephen**
Protocol Title: **Immunity to Rhodococcal Pneumonia in Foals: Lipids as Immune Targets and Adjuvant**
Primary Reviewer: **D. Bradway** Second Reviewer: **M. Kluzik**
 - 6/25/12: Deferred by IBC pending clarification on the host PG-13.
 - 3/25/13: The PI will be contacted for the final time to make the requested revisions. If not completed, the BAF will be withdrawn and deactivated.
 - 5/13/13: The PI must complete the requirements by the end of the week.
2. Protocol Number: **1154-001** Principal Investigator: **Walker, Brendan**
Protocol Title: **Viral Vector-Mediated Conditional Gene Excision**
Primary Reviewer: **E. Sheldon** Second Reviewer: **S. Russell**
 - 8/27/12: deferred by the IBC, pending updated abstract, approval of the BSM and lab facilities.
 - 3/25/13: As there has been no progress in identification of lab facilities, the PI will be advised to withdraw the BAF and resubmit when prepared to move forward.

- 5/13/13: The labs have been identified and are being eontaminated.
3. Protocol Number: **1157-001** Principal Investigator: **Xu, Jun**
 Protocol Title: **Rodent Models for Human Neuropsychiatric Disorders**
 Primary Reviewer: **D Bradway** Second Reviewer: **S. Russell**
 - 9/24/12: Deferred by IBC pending revision to the BAF and approval of the facilities and Biosafety Manual.
 - 3/25/13: The PI has not yet obtained a BSC, which is necessary for approval.
 4. Protocol Number: **991-004** Principal Investigator: **Li, Hong**
 Protocol Title: **Immunological intervention of malignant catarrhal fever virus-induced disease in ruminants**
 Primary Reviewer: **Steve Russell** Second Reviewer: **Grant Trobridge**
 - 12/17: Deferred by convened IBC, pending clarifications.
 - 2/12/13: Clarification requested of APHIS.
 - 5/6/13: Revised BAF assigned for re-review. BSL changed to 2 and ABSL-2. The re-review will occur during the 5/20 meeting.
 5. Protocol Number: **989-007** Principal Investigator: **Dhingra, Amit**
 Protocol Title: **Plant Genomics and Biotechnology for Crop Improvement**
 Facilities: **Inspections requested 1/23** BSM: **update requested 1/23**
 Primary Reviewer: **L. Thomashow** Second Reviewer: **E. Shelden**
 - 1/28/13: Deferred by convened IBC, pending more complete information in the BAF.

- IX. Biosafety Program Update
- X. Old Business
- XI. New Business
- XII. Bio-Incident Reports

COMPLETE DESCRIPTION OF WHAT THE PARTY WAS DOING JUST BEFORE THE INCIDENT OCCURED I was inoculating apples into a bucket of generic e.coli	
COMPLETE DESCRIPTION OF INCIDENT, INCLUDE SPECIFIC ACTIVITY DURING INCIDENT When picking up the bag to close it, I was shot in both eyes with an unknown amount of inoculum. Which contained 3 strains at 10 ^7 of generic e.coli and horse serum.	
SPECIFY INJURY OR ILLNESS AND BODY PARTS AFFECTED Contamination event of biological and chemical elements into both eyes.	
DESCRIBE THE OBJECT OR SUBSTANCE THAT DIRECTLY HARMED THE PARTY generic e. coli	
EXACT LOCATION OF INCIDENT BSL 1 lab	
NAMES AND PHONE NUMBERS OF WITNESSES OR OTHERS INVOLVED IN THE INCIDENT kyle, tonia, achyut, patricia, kate	
INJURY/ILLNESS SEVERITY First Aid or Medical Treatment Performed: Cleaning, flushing or soaking surface wounds	
NAME AND ADDRESS OF MEDICAL PROVIDER I don't know if I will have to get treatment yet...	TREATED IN EMERGENCY ROOM? No
	HOSPITALIZED OVERNIGHT AS INPATIENT? No

Discussion: The only thing discussed was if the tech had been wearing eye protection. She was not, merely her personal corrective lenses. There were no corrective actions required by the IBC.

XIII. Adjournment

The meeting adjourned at 14:48.

WSU IBC Minutes
June 24, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Sheldon	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Mike Heston	Community Member; Pullman Fire Department
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Adi Nkwonta*	Community Member; Pullman Regional Hospital
6.	Hanu Pappu	Plant Pathology
7.	Steve Russell	Office of the Campus Vet
8.	Linda Thomashow	USDA/ARS; Plant Pathology
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	David Clark	Research Compliance

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:11, with a quorum (8 members) present.

II. Announcements:

1. D. Bradway has resigned from the IBC.

III. Minutes – May 20, 2013

Approve. The motion was proposed by L Thomashow and seconded by M. Kluzik.

Total: 8 In Favor: 8 Opposed: 0 **Motion Carried (8-0)**

IV. BSL – 1 BAFs

A. *Nkwonta arrived at 13:13 (9 members)*

A. Renewals:

1. Protocol Number: 1107-002 Principal Investigator: Cooper, Cynthia
Protocol Title: Melanophore Function and Development in Danio rerio zebrafish
Facilities: Current BSM: Current

Primary Reviewer: P. Butterfield Secondary Reviewer: S. Russell

Discussion: there were no concerns voiced, nor changes required.

Approve. Motion by P. Butterfield; 2nd by S. Russell.

Total: 9 In Favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. *Protocol Number: 998-004* *Principal Investigator: Steber, Camille*
Protocol Title: Characterization of stress resistance genes and mechanisms, and improvement of genotyping of wheat
Facilities: Current *BSM: Current*

Primary Reviewer: H. Pappu *Secondary Reviewer: L. Thomashow*

Discussion: there were no concerns voiced, nor changes required.

Approve. Motion by H. Pappu; 2nd by L. Thomashow.

Total: 9 In Favor: 9 Opposed: 0 **Motion Carried (9-0)**

V. **BSL – 2 BAFs**

A. **New Protocols:**

1. *Protocol Number: 1171-001* *Principal Investigator: Liu, David*
Protocol Title: Regulation and function of ATF5
Facilities: Not current *BSM: Not current*

Primary Reviewer: E. Shelden *Secondary Reviewer: G. Trobridge*

Discussion: In Section 2 of the BAF, the PI has indicated that both vertebrate and non-vertebrate animals, human subjects or samples and plants will be involved in the research. However, the rest of the BAF does not address any of these, with the exception of human samples. This is possibly a typo that is the result of the formatting of these questions. In Section 3, the PI has indicated that the HeLa cells are a source of HPV. This has been discussed by the IBC before, and should say that the cells contain HPV genes, but are not a source of the actual virus. Additionally, the research uses Adenovirus, while the BAF indicates Adeno-Associated Virus. This must be change. Finally, in Section 4, the sub category E-1 (under NIH category III-E) is not accurate and can be removed (per OBA guidance, the subcategories are not necessary).

Required Changes:

- BAF Section 2: Review the biological materials indicated by items B-E and revise to reflect the research.
- BAF Section 3: Revise the infectious agent table to indicate that the HeLa cells are a source of HPV genes, not HPV.
- BAF Section 3: Revise the infectious agent table to indicate that the research uses Adenovirus, rather than AAV.
- BAF Section 4: Unselect NIH subcategory E-1, as well as the ‘No’ answer to the subsequent question.
- Approval of the BSM and facilities.

Defer, pending successful completion of the required changes. The approval to be granted by the assigned reviewers. The motion was proposed by E. Sheldon, and seconded by G Trobridge.

Total: 9 In Favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. *Protocol Number: 1109-012* *Principal Investigator: Trobridge, Grant*
Protocol Title: Retroviral vector gene transfer to stem cells for gene therapy and cancer research
Facilities: Current *BSM: Current*

Primary Reviewer: S. Russell *Secondary Reviewer: L. Thomashow*

Due to the conflict of interest, G. Trobridge recused himself from the deliberation and vote. Quorum was maintained (8 Members).

Discussion: The only concern that the committee had was that, in Section 3 of the BAF, double containment of potentially infectious blood/tissue when being transported between facilities was not described. There was some concern that the cloning expression of libraries could extend the host range. G. Trobridge was recalled into the meeting to address this concern (as a PI, quorum was not affected). G. Trobridge clarified that extension of the host range was extremely unlikely, approaching impossible (after addressing this question, G. Trobridge again left the meeting). The committee was satisfied by this and required no additional revisions.

Required Changes:

- BAF Section 3: Revise Item 4 to indicate that double containment will be used when transporting potentially infectious materials within and between facilities.

Defer, pending successful completion of the required changes. The approval to be granted by the BSO. The motion was proposed by L. Thomashow, and seconded by E. Sheldon.

Total: 8 In Favor: 8 Opposed: 0 **Motion Carried (8-0)**

G. Trobridge returned to the meeting (9 members).

VI. Approved in the Interim

A. Administrative Approvals:

1. *Protocol Number: 814-011* *Principal Investigator: Call, Doug*
Protocol Title: Gene Knockouts and Recombinant Proteins
Primary Reviewer: P. Conner

- 5/17/13: Personnel amendment approved by Coordinator.

2. *Protocol Number: 923-011* *Principal Investigator: Call, Doug*

Protocol Title: Detection and Characterization of Bacterial Isolates & Comparative Genomics

Primary Reviewer: P. Conner

- 5/17/13: Personnel amendment approved by Coordinator.

3. *Protocol Number: 1114-003* *Principal Investigator: Scoles, Glen*

Protocol Title: Determinants of Anaplasma marginale transmission at the vector/pathogen interface AND Immunologic and Pharmacological Interventions of Vector-Borne Babesiosis

Primary Reviewer: M. Kluzik

- 5/29/13: Amendment to add 2 additional strains of C. burnetti to the agent list approved by BSO.

4. *Protocol Number: 1121-003* *Principal Investigator: Brown, R Lane*

Protocol Title: Retinal circuitry

Primary Reviewer: M. Kluzik

- 6/14/13: Amendment to move labs and animal housing to the Vet Med Research building, add new infectious agents and vectors approved by BSO.

B. Other Approvals:

1. *Protocol Number: 1157-001* *Principal Investigator: Xu, Jun*

Protocol Title: Rodent Models for Human Neuropsychiatric Disorders

Primary Reviewer: D Bradway *Second Reviewer: S. Russell*

- 9/24/12: Deferred by IBC pending revision to the BAF and approval of the facilities and Biosafety Manual.
- 3/25/13: The PI has not yet obtained a BSC, which is necessary for approval.
- 6/5/13: BSO approved BAF after revision.

2. *Protocol Number: 1106-003* *Principal Investigator: Lahmers, Kevin*

Protocol Title: Molecular basis of nontyphoidal salmonella emergence

Primary Reviewer: P. Butterfield *Second Reviewer: D. Bradway*

- 5/20/13: Deferred by convened IBC, pending revisions to the BAF.
- 6/4/13: Revised BAF approved.

VII. Deferred BAFs

1. *Protocol Number: 934-005* *Principal Investigator: Hines, Stephen*

Protocol Title: Immunity to Rhodococcal Pneumonia in Foals: Lipids as Immune Targets and Adjuvant

Primary Reviewer: D. Bradway *Second Reviewer: M. Kluzik*

- 6/25/12: Deferred by IBC pending clarification on the host PG-13.
- 3/25/13: The PI will be contacted for the final time to make the requested revisions. If not completed, the BAF will be withdrawn and deactivated.
- 5/13/13: The PI must complete the requirements by the end of the week.
- 6/10/13: PI given guidance and a 6/21 deadline.

- 6/24/13: The PI has submitted the revised BAF and the Chair and BSO approved the BAF.
2. Protocol Number: **1154-001** Principal Investigator: **Walker, Brendan**
 Protocol Title: **Viral Vector-Mediated Conditional Gene Excision**
 Primary Reviewer: **E. Sheldon** Second Reviewer: **S. Russell**
 - 8/27/12: deferred by the IBC, pending updated abstract, approval of the BSM and lab facilities.
 - 3/25/13: As there has been no progress in identification of lab facilities, the PI will be advised to withdraw the BAF and resubmit when prepared to move forward.
 - 5/13/13: The labs have been identified and are being decontaminated.
 - 5/29/13: Revised BAF submitted and forwarded to reviewers for review.
 3. Protocol Number: **989-007** Principal Investigator: **Dhingra, Amit**
 Protocol Title: **Plant Genomics and Biotechnology for Crop Improvement**
 Primary Reviewer: **L. Thomashow** Second Reviewer: **E. Sheldon**
 - 1/28/13: Deferred by convened IBC, pending more complete information in the BAF.
 4. Protocol Number: **1170-001** Principal Investigator: **Chandra, Murali**
 Protocol Title: **Mechanistic understanding of troponin T role in cardiac thin filament activation**
 Primary Reviewer: **E. Sheldon** Second Reviewer: **L. Thomashow**
 - 5/20/13: Deferred by convened IBC, pending revisions to the BAF.
 5. Protocol Number: **1126-002** Principal Investigator: **Oatley, Jon**
 Protocol Title: **Mechanisms of Spermatogonial Stem Cell Fate Decisions**
 Primary Reviewer: **A. Nkwonta** Second Reviewer: **M. Kluzik**
 - 5/20/13: Deferred by convened IBC, pending revisions to the BAF.

VIII. Bio-Incident Reports

COMPLETE DESCRIPTION OF WHAT THE PARTY WAS DOING JUST BEFORE THE INCIDENT OCCURED

I was in the freezer/autoclave room, ETRL 343 putting samples into the freezer when the box I was using became full. I put the full sample box into the freezer and moved towards the table in the room to look for another box. I stepped toward the table located in the room to look for another small freezer box, since the sample box I was using became full. As I stepped next to the table I felt something poke my shin. I looked down and saw that I had brushed up against an orange biohazard bag. I stepped back and lifted my jean pant leg and noticed a drop of blood forming on my shin. I looked at the bag and there was an uncapped syringe needle poking out of the bag. I immediately went to my lab in ETRL and told Taimur Khan, an assistant research professor, and [REDACTED] 38, an undergraduate researcher, both from my lab group what had just happened. I told them where it happened and that I didn't know where the bag and needle were from. I received first aid treatment from Taimur and [REDACTED] 38. I also emailed Dr. Haluk Beyenal, my lab professor, at that time. Then [REDACTED] 38 and Taimur went to find out where the bag was from. They were able to determine that the bag came from Dr. Nehal Abu-Lail's lab. I then emailed Dr. Abu-

Lail to let her know the situation. Then I went with Taimur and 38 to the Health and Wellness Center.
SPECIFY INJURY OR ILLNESS AND BODY PARTS AFFECTED Right upper shin, just below the knee.
DESCRIBE THE OBJECT OR SUBSTANCE THAT DIRECTLY HARMED THE PARTY Used syringe needle contaminated with bacteria that had not been autoclaved.
EXACT LOCATION OF INCIDENT ETRL 343
NAMES AND PHONE NUMBERS OF WITNESSES OR OTHERS INVOLVED IN THE INCIDENT Taimur Khan 406-579-4757 38
INJURY/ILLNESS SEVERITY First Aid or Medical Treatment Performed: Use of bandages, Cleaning, flushing or soaking surface wounds, Prescription medications*

NAME AND ADDRESS OF MEDICAL PROVIDER Dr. Jeff Radakovich WSU Health and Wellness	TREATED IN EMERGENCY ROOM? No	
	HOSPITALIZED OVERNIGHT AS INPATIENT? No	
SUPERVISOR NAME Haluk Beyenal	SUPERVISOR EMAIL beyenal@wsu.edu	PHONE 509-335-6607

Discussion: this is the third needle stick that has been reported to EH&S this year. It is the first that involved biological agents. The Committee saw this as a training issue and the BSO will work to emphasize sharps disposal training in the Biosafety Manual templates in order to prevent similar incidents in the future.

IX. Adjournment

The meeting adjourned at 13:50.

WSU IBC Minutes
July 22, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	David Clark	Research Compliance
3.	Mike Heston	Community Member; Pullman Fire Department
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Steve Russell	Office of the Campus Vet
6.	Linda Thomashow	USDA/ARS; Plant Pathology
7.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital
3.	Hanu Pappu	Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:07, with a quorum (7 members) present.

II. Announcements:

1. An updated IBC manual has been posted to the IBC website.

III. Minutes – June 24, 2013

Approve. The motion was proposed by M. Kluzik and seconded by S. Russell.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

IV. BSL – 1 BAFs

A. New Protocols:

1. *Protocol Number:* **1172-001** *Principal Investigator:* **Ritter, Robert**

Protocol Title: **The role of glutamate in the control of food intake**

Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **H. Pappu**

Secondary Reviewer: **E. Shelden**

Discussion: the major concern that the committee had was whether or not the research involved the production of the Adeno-Associated Viral (AAV) vectors, as opposed to merely obtaining them. If the vectors were not being produced in the course of this research, committee had no problem with approval at BSL-1.

However, if the research involves the production of the vectors, BSL-2 containment is necessary.

Defer, pending clarification regarding the production of the AAV vectors.

Follow-up by the BSO. If there is no vector production, BSO may grant approval at BSL-1. If there is vector production, the BSO will assist the PI to revise the BAF at BSL-2 and then grant approval. The motion was proposed by M. Kluzik and seconded by E. Shelden..

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

V. BSL – 2 BAFs

A. New Protocols:

1. Protocol Number: 1173-001 *Principal Investigator: Nicola, Anthony*

Protocol Title: Bovine herpesvirus 1 entry into host cells

Facilities: Current BSM: Current

Primary Reviewer: P. Butterfield

Secondary Reviewer: A. Nkwonta

Discussion: This research is very similar to another BAF by this PI that involves human herpesvirus and is consistent with that work. The committee had no concerns and no changes were required.

Approve. The motion was proposed by S. Russell and seconded by M. Kluzik.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

B. Renewals:

1. Protocol Number: 1094-004 *Principal Investigator: Wayman, Gary*

Protocol Title: Regulation of Neuronal Development

Facilities: Current BSM: Current

Primary Reviewer: G. Trobridge

Secondary Reviewer: M. Kluzik

Discussion: The submitted BAF did not include the description of the Scope of Work. Section 3 of the BAF contains some errors and omissions. It erroneously indicates that human vaccines are available for the lentiviral vectors and the Adenovirus-5 associated with the use of HEK-293 was not listed among the infectious agents (for which there are also no human vaccines).

Required Changes:

- Submit the Scope of Work.
- Section 3: Regarding human vaccines for the lentiviral vectors, change the response from 'Yes' to 'No.'
- Section 3: Add Adenovirus-5 to the list of infectious agents (human hazard: Yes; vaccines available: No).

Defer, pending completion of the required changes. Follow-up by the BSO. The motion was proposed by M. Kluzik and seconded by E. Shelden.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *Protocol Number: 871-005* *Principal Investigator: Knowles, Donald*
Protocol Title: Pathogenesis, transmission, and diagnosis of North American ruminant transmissible spongiform encephalopathies
Facilities: Current BSM: Current
Primary Reviewer: S. Russell *Secondary Reviewer: L. Thomashow*

Discussion: This research is also covered by an APHIS Permit, and has recently passed an USDA inspection. The containment level is appropriate. The only concerns that the committee had were that Section 3 did not describe the containment procedures for the transfer of infected tissue between lab facilities. Additionally, the transfer of infected animals between is stated to occur in a “sealed truck.” The committee was not clear on what this meant

Required Changes:

- Section 3: Clarify what is meant by “sealed truck” in reference to animal transport.
- Section 3: Add the containment procedures that will be used to transport infected tissues between facilities.

Defer, pending completion of the required changes. Follow-up by the BSO. The motion was proposed by S. Russell and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

L. Thomashow left the meeting at 13:57. Quorum was maintained (6 members).

C. Amendments:

1. *Protocol Number: 1126-002* *Principal Investigator: Oatley, Jon*
Protocol Title: Mechanisms of Spermatogonial Stem Cell Fate Decisions
Facilities: Current BSM: Current
Primary Reviewer: A. Nkwonta *Second Reviewer: M. Kluzik*

Discussion: The PI has revised the amendment per the committee’s requirements from the 5/20/13 meeting. The committee debated whether or not this could be approved as an amendment or if a separate BAF, specifically for the macaque tissue, was necessary, eventually deciding that, as long as the BSM was sufficient, it could be an amendment. Given the hazards posed by the macaque tissue, the committee decided that personnel working with the tissue should provide documentation that they are familiar with the BSM, CDC fact sheet and the list of instructions to be followed in the event of exposure.

Required Change:

- Submit a sheet for study personnel to sign as an acknowledgement that they have read and will comply with the Biosafety Manual, CDC Fact Sheet and list of exposure instructions.

Defer, pending completion of the required change. Follow-up by the BSO. The motion was proposed by M. Kluzik and seconded by G. Trobridge.

Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

2. *Protocol Number: 1156-002* *Principal Investigator: Noratto, Giuliana*
Protocol Title: Foods as Source of Bioactive Compounds That Can Protect from Obesity and Chronic Diseases
Facilities: Current *BSM: Current*
Primary Reviewer: M. Kluzik *Second Reviewer: E. Shelden*

Discussion: There is an indication that the research involves human tissue, no description was included. This, however, may be a typo. Additionally, the BSM has not yet been received from the PI.

Defer, pending clarification on the use of human tissue and submission and approval of the BSM. Follow-up by the BSO. If the indication of human tissue is an error, the BSO will correct and approve. If not, the amendment form must be revised to describe the human tissue inclusion and will be returned to the convened IBC. The motion was proposed by E. Shelden and seconded by M. Kluzik.

Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

VI. Approved in the Interim

A. Other Approvals:

1. *Protocol Number: 1109-012* *Principal Investigator: Trobridge, Grant*
Protocol Title: Retroviral vector gene transfer to stem cells for gene therapy and cancer research
Primary Reviewer: S. Russell *Secondary Reviewer: L. Thomashow*

- 6/24/13: Deferred by IBC, pending revision to Section 3.
- 6/25/13: PI has agreed to the suggested changes. BAF approved.

VII. Deferred BAFs

1. *Protocol Number: 989-007* *Principal Investigator: Dhingra, Amit*
Protocol Title: Plant Genomics and Biotechnology for Crop Improvement
Primary Reviewer: L. Thomashow *Second Reviewer: E. Shelden*

- 1/28/13: Deferred by convened IBC, pending more complete information in the BAF.

- 6/11/13: BSO sent reminder to PI and lab contact, reminding them that comments still need to be addressed.
 - 7/1/13: BSO sent another reminder.
2. *Protocol Number: 1170-001* *Principal Investigator: Chandra, Murali*
Protocol Title: Mechanistic understanding of troponin T role in cardiac thin filament activation
Primary Reviewer: E. Shelden *Second Reviewer: L. Thomashow*
- 5/20/13: Deferred by convened IBC, pending revisions to the BAF.
3. *Protocol Number: 1126-002* *Principal Investigator: Oatley, Jon*
Protocol Title: Mechanisms of Spermatogonial Stem Cell Fate Decisions
Primary Reviewer: A. Nkwonta *Second Reviewer: M. Kluzik*
- 5/20/13: Deferred by convened IBC, pending revisions to the BAF.
 - 7/9/13: Revisions will be reviewed at the 7/22 meeting
4. *Protocol Number: 1171-001* *Principal Investigator: Liu, David*
Protocol Title: Regulation and function of ATF5
Primary Reviewer: E. Shelden *Secondary Reviewer: G. Trobridge*
- 6/24/13: Deferred by IBC pending revision to the BAF, approval of the facilities and approval of the BSM.
 - 7/8/13: Comments sent to PI.
 - 7/9/13: BAF submission re-sent to PI.

VIII. Bio-Incident Reports

- A fire alarm went off in one of the Vet Quarantine facilities. There was no fire. The alarm was apparently set off by a formaldehyde-based chemical fog used to disinfect the facility. The researcher has used this method of disinfection before without incident, but recent thunderstorm activity may have raised the humidity and caused the alarm to go off. The facility was empty at the time and there were no animal or human injuries.

IX. Adjournment

The meeting adjourned at 14:12.

WSU IBC Minutes
August 26, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Diaz-Campos, Dubraska	College of Veterinary Medicine
5.	Mike Heston	Community Member; Pullman Fire Department
6.	Mike Kluzik	Biosafety Officer; Research Compliance
7.	Hanu Pappu	Plant Pathology
8.	Steve Russell	Office of the Campus Vet
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Adi Nkwonta	Community Member; Pullman Regional Hospital
2.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:13, with a quorum (9 members) present.

II. Announcements:

- Dr. Dubraska Diaz-Campos has been appointed to the IBC. The other members introduced themselves and Dr. Diaz-Campos summarized her background.

III. Minutes – July 22, 2013

There is a typo on page one of the Minutes (caused by the voice to text program).

Approve with correction of the typo. The motion was proposed by D. Clark and seconded by M. Kluzik.

Total: 9 In Favor: 8 Opposed: 0 Abstained: 1 **Motion Carried (8-0-1)**
D. Diaz-Campos abstained from the vote.

IV. BSL – 1 BAFs

A. New Protocols:

1. *Protocol Number: 1174-001* *Principal Investigator: Lavine, Laura*

Protocol Title: Genetic mechanisms underlying nutrition-dependent trait growth in insects

Primary Reviewer: G. Trobridge

Secondary Reviewer: D. Clark

Discussion: The Summary of Work is missing. It is difficult to determine what the researcher is doing and if the research involves creating recombinant organisms or merely studying them. The PI has been out of country and was not able to resolve these questions prior to the meeting.

Required Changes:

- Submit the Summary of Work, describing the work performed and whether or not rDNA is being added to the germ line.

Defer, pending the required revisions. Follow-up by the BSO and Assigned Reviewers. The motion was proposed by G. Trobridge and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. *Protocol Number: 1008-003* *Principal Investigator: Bose, Susmita*

Protocol Title: Developing Materials and Scaffolds for Bone Implants

Primary Reviewer: P. Butterfield

Secondary Reviewer: A. Nkwonta

Discussion: The only concern was that one of the bone cell lines listed contained viral fragments and it is not clear if the fragments are infectious or how easily they can recombine to become infectious. If the fragments are infectious or are easily recombined, the research requires BSL-2 containment. The PI and BSO have requested clarification from the supplier, but have not yet received a response.

Required Changes:

- Clarify the specific cell lines and appropriate BSL of the human bone samples. If BSL-2, remove from the BAF and submit as a separate BAF.

Defer, pending completion of the required change. Follow-up by the BSO. The motion was proposed by P. Butterfield and seconded by D. Clark.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. *Protocol Number: 989-007* *Principal Investigator: Dhingra, Amit*

Protocol Title: Plant Genomics and Biotechnology for Crop Improvement

Primary Reviewer: H. Pappu

Second Reviewer: M. Kluzik

Discussion: There were no concerns or required changes.

Approve. The motion was proposed by H. Pappu and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

3. *Protocol Number: 827-007* *Principal Investigator: Thorgaard, Gary*
Protocol Title: Genetic investigations of trout and salmon
Primary Reviewer: S. Russell *Second Reviewer: E. Shelden*

Discussion: The BAF is very broad and general, and does not specify what work will be done. In Section 3, it is not clear if the PI will be receiving or sending the fish eggs or juveniles, and whether they will be infected, or surviving offspring of infected fish. Section 4 does not specify the genes to be cloned. Section 7 needs to specify if the entire fish will be used for the analysis, or if only a tissue sample will be collected. In the latter case, the BAF needs to specify the method of disposal of the remnants.

Required Changes:

- Section 3: Specify if you will be receiving eggs/juveniles from Cold Spring, or transporting eggs/juveniles to Cold Spring.
- Section 3: Specify if the eggs/juveniles are infected.
- Section 4: Specify the genes to be cloned.
- Section 7: Specify if the entire fish will be used for the analysis, or a sample will be harvested from the fish. If only a sample will be used, specify the method of disposal of the remnants.

Defer, pending the required revisions. Follow-up by the BSO and Assigned Reviewers. The motion was proposed by S. Russell and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

4. *Protocol Number: 1112-002* *Principal Investigator: Bradley, Vicki*
Protocol Title: Storage and distribution of seed of T-DNA tagged mutant lines of the grass Brachypodium distachyon.
Facilities: FR Unneeded *BSM: BSM Unneeded*

Primary Reviewer: L. Thomashow *Second Reviewer: H. Pappu*

Discussion: This BAF does not involve true research or the creation of GMO plants, but has been submitted to the IBC primarily for documentation of biosecurity. There were no concerns or changes required.

Approve. The motion was proposed by M. Kluzik and seconded by H. Pappu.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

V. **BSL – 2 BAFs**

A. **Renewals:**

1. *Protocol Number: 876-006* *Principal Investigator: Mealey, Robert*
Protocol Title: Lentivirus control by CTL and Neutralizing Antibody
Primary Reviewer: S. Russell *Second Reviewer: G. Trobridge*

Discussion: There were no concerns. However the facilities and BSM are still under review.

Defer, pending approval of the facilities and BSM. Follow-up by the BSO. The motion was proposed by S. Russell and seconded by D. Clark.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

VI. Approved in the Interim

A. Other Approvals:

- 1. Protocol Number: 1156-002** *Principal Investigator: Noratto, Giuliana*
Protocol Title: Foods as Source of Bioactive Compounds That Can Protect from Obesity and Chronic Diseases
Primary Reviewer: M. Kluzik *Second Reviewer: E. Shelden*
 - 7/22/13: Deferred by IBC pending submission and approval of the BSM and a clarification of the indication that human tissues will be used.
 - 7/24/13: PI clarified that human feces will be included in the research.
 - 7/29/13: PI has agreed to add Human materials by another amendment at a later time. BSO approved BSM and Amendment.
- 2. Protocol Number: 1170-001** *Principal Investigator: Chandra, Murali*
Protocol Title: Mechanistic understanding of troponin T role in cardiac thin filament activation
Primary Reviewer: E. Shelden *Second Reviewer: L. Thomashow*
 - 5/20/13: Deferred by convened IBC, pending revisions to the BAF.
 - 8/7/13: Revisions approved by assigned reviewers. BAF approved.
- 3. Protocol Number: 1126-002** *Principal Investigator: Oatley, Jon*
Protocol Title: Mechanisms of Spermatogonial Stem Cell Fate Decisions
Primary Reviewer: A. Nkwonta *Second Reviewer: M. Kluzik*
 - 5/20/13: Deferred by convened IBC, pending revisions to the BAF.
 - 7/9/13: Revisions will be reviewed at the 7/22 meeting.
 - 7/22/13: deferred by the IBC pending the addition of an acknowledgement sheet for personnel to sign.
 - 8/5/13: BAF Approved.
- 4. Protocol Number: 1172-001** *Principal Investigator: Ritter, Robert*
Protocol Title: The role of glutamate in the control of food intake
Facilities: Current **BSM: Current**
Primary Reviewer: H. Pappu *Secondary Reviewer: E. Shelden.*
 - 7/22/13: Deferred by convened IBC pending clarification regarding the production of AAV vectors.
 - 7/29/13: Clarification received, BAF approved.
- 5. Protocol Number: 871-005** *Principal Investigator: Knowles, Donald*
Protocol Title: Pathogenesis, transmission, and diagnosis of North American ruminant transmissible spongiform encephalopathies

Facilities: Current BSM: Current
Primary Reviewer: S. Russell Secondary Reviewer: L. Thomashow

- 7/22/13: Deferred by IBC pending clarification of the transport procedures.
- 7/29/13: BAF updated to reflect required changes.
- 8/16/13: BAF approved.

VII. Deferred BAFs

1. Protocol Number: 1171-001 Principal Investigator: Liu, David
Protocol Title: Regulation and function of ATF5
Primary Reviewer: E. Shelden Secondary Reviewer: G. Trobridge

- 6/24/13: Deferred by IBC pending revision to the BAF, approval of the facilities and approval of the BSM.
- 7/8/13: Comments sent to PI.
- 7/9/13: BAF submission re-sent to PI.
- 7/30/13: Revised BAF received from PI, along with Penn State's determination that the research does not involve human subjects.
- 8/15/13: PI has informed BSO that BSCs are having HEPA filters replaced.

2. Protocol Number: 1094-004 Principal Investigator: Wayman, Gary
Protocol Title: Regulation of Neuronal Development
Facilities: Current BSM: Current
Primary Reviewer: G. Trobridge Secondary Reviewer: M. Kluzik

- 7/22/13: deferred by IBC pending submission of the Scope of Work and revision to Section 3 of the BAF.
- 8/26/13: PI is on sabbatical and will address requirements for approval upon his return.

VIII. New Business

- A. Self-assessment and training session planned for September 23 meeting**
- a. The committee elected to begin the meeting at noon, lunch will be provided.**

IX. Adjournment

The meeting adjourned at 13:49.

WSU IBC Minutes
September 23, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Adi Nkwonta	Community Member; Pullman Regional Hospital
6.	Steve Russell	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	College of Veterinary Medicine
2.	Mike Heston	Community Member; Pullman Fire Department
3.	Hanu Pappu	Plant Pathology
4.	Linda Thomashow	USDA/ARS; Plant Pathology
5.	Grant Trobridge	College of Pharmacy

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Steve Potratz	Facilities Operations
3.	Dan Dreesman	CAHNRS Plant Growth Facilities
4.	Patrick Reisenauer	Crop and Soil Sciences

I. Call to Order:

The meeting was called to order at 12:11, with a quorum (6 members) present.

II. IBC Member Training

A. NIH Self-Assessment Checklist

- M. Kluzik went over the majority of the checklist with the board. WSU currently utilizes most of the suggestions from the checklist. M. Kluzik took notes related to those that are not, with the goal of exploring the feasibility of implementation.

III. Minutes – July 22, 2013

Approve, with a revision to replace “order food from Jimmy John’s...” with “lunch will be provided.” The motion was proposed by S. Russell and seconded by D. Clark.

Total: 6 In favor: 6 Opposed: 0 Motion carried (6-0)

IV. BSL – 1 BAFs

A. New Protocols:

1. *Protocol Number: 1175-001* *Principal Investigator: Brown, Wendy*
Protocol Title: The Role of CD4+ T-Cell Responses in Protective Immunity to Theileria parva
Facilities: Current *BSM: Current*

Primary Reviewer: S. Russell

Secondary Reviewer: M. Kluzik

Discussion: Section 3 of the BAF does not describe the methods of transportation of infected tissues and fluids between laboratory facilities. There was also some concern over the disposal of inoculated animals. The intent stated in the BAF is to render them, but this may be prohibited by NIH guidelines. The guidelines are not clear if inoculated animals may be rendered once cleared of infectious agents, or if they must be disposed of by incineration, composting, etc.

Required Changes:

- Section 3: Add a description of the containment procedures used when transporting infected samples between facilities.

Additionally, the BSO will follow-up with the NIH on disposal of inoculated animals. If rendering is allowed, no revisions are needed. If not, the disposal methods in Section 7 must be revised.

Defer, pending revision to Section 3, clarification from the NIH and subsequent revisions to Section 7, if necessary. Follow-up by the BSO. The motion was proposed by M. Kluzik and seconded by S. Russell.

Total: 6 In favor: 6 Opposed: 0 **Motion carried (6-0)**

B. Renewals:

1. *Protocol Number: 1105-002* *Principal Investigator: Gang, David*
Protocol Title: Control of Natural Product Production in Aromatic Herbs, Spices and Biofuel Plants
Facilities: Requested 9/10 *BSM: Requested 9/10*

Primary Reviewer: H. Pappu

Secondary Reviewer: P. Butterfield

Discussion: There were no concerns with the BAF or changes required, The only barrier to approval were the absence of the facility review and BSM approvals.

Defer, pending approval of the facility reviews and BSM. Follow-up by the BSO. The motion was proposed by P. Butterfield and seconded by M. Kluzik.

Total: 6 In favor: 6 Opposed: 0 **Motion carried (6-0)**

2. *Protocol Number: 1039-005* *Principal Investigator: Wang, Susan*
Protocol Title: Radical mechanisms for methylation in Antibiotic Biosynthesis
Facilities: Current *BSM: Current*

Primary Reviewer: **M. Kluzik**

Secondary Reviewer: **A. Nkwonta**

Discussion: There were no concerns or changes required.

Approve. The motion was proposed by M. Kluzik and seconded by A. Nkwonta.

Total: 6 In favor: 6 Opposed: 0 **Motion carried (6-0)**

V. BSL – 2 BAFs

A. New Protocols:

- 1. Protocol Number: 1176-001 Principal Investigator: Omsland, Anders**
Protocol Title: Coxiella and Chlamydia Metabolism, Physiology and ex vivo
Virulence
Facilities: Inspected 9/13 BSM: Requested by BSO

Primary Reviewer: **E. Shelden**

Secondary Reviewer: **M. Kluzik**

Discussion: Section 3 incorrectly indicates that Coxiella is not a human hazard. The description of the genes in Section 4 to be cloned is vague. This may mean that the NIH category designation of III-D, D-1 may be incorrect, as you cannot say the pathogenicity will not be increased, if you do not know the genes involved. Additionally, the concentration of the bacteria is listed, per PI's communications with BSO, but it is not clear if this constitutes a "high concentration" or "low concentration," as referenced in the BMBL.

Required Changes:

- Section 3: Revise to indicate that Coxiella is a human hazard, and indicate if vaccines are available.
- Section 3: Revise to indicate if the concentration of the bacteria is high or low, per BMBL.
- Section 4: Specify the genes to be cloned. If this invalidates the III-D, D-1 NIH category, update the NIH category.

Defer, pending required changes and approval of the facilities and BSM.

Revisions to be reviewed by the Convened IBC. The motion was proposed by E. Shelden and seconded by D. Clark.

Total: 6 In favor: 6 Opposed: 0 **Motion carried (6-0)**

- 2. Protocol Number: 1177-001 Principal Investigator: Hardy, Michele**
Protocol Title: Molecular biology of rotavirus replication and immune responses to enteric infection
Facilities: Requested by BSO BSM: Requested by BSO

Primary Reviewer: **S. Russell**

Secondary Reviewer: **D. Clark**

Discussion: There were no concerns with the BAF or changes required, The only barrier to approval were the absence of the facility review and BSM approvals.

Defer, pending approval of the facility reviews and BSM. Follow-up by the BSO. The motion was proposed by S. Russell and seconded by D. Clark.

Total: 6 In favor: 6 Opposed: 0 **Motion carried (6-0)**

B. Renewals:

1. *Protocol Number:* **1008-003** *Principal Investigator:* **Bose, Susmita**
Protocol Title: **Developing Materials and Scaffolds for Bone Implants**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **P. Butterfield**

Secondary Reviewer: **A. Nkwonta**

Discussion: The BAF has been upgraded to BSL-2 due to the containment needs for one strain of bone cells. The upgraded BAF does not contain the specific strains of bone cells used in the research.

Required Changes:

- Section 5: List the specific strains of cells used.

Defer, pending completion of the required change. Follow-up by the Assigned Reviewers. The motion was proposed by member and seconded by member.

Total: 6 In favor: 6 Opposed: 0 **Motion carried (6-0)**

VI. **Approved in the Interim**

A. Administrative Approvals: None

B. Other Approvals:

1. *Protocol Number:* **876-006** *Principal Investigator:* **Mealey, Robert**
Protocol Title: **Lentivirus control by CTL and Neutralizing Antibody**
Primary Reviewer: **S. Russell** *Second Reviewer:* **G. Trobridge**

- 8/26/13: BAF deferred pending FR and BSM approval
- 9/3/13: FR and BSM approved. BAF approved.

2. *Protocol Number:* **1174-001** *Principal Investigator:* **Lavine, Laura**
Protocol Title: **Genetic mechanisms underlying nutrition-dependent trait growth in insects**
Primary Reviewer: **G. Trobridge** *Secondary Reviewer:* **D. Clark**

- 8/26/13: Deferred, pending submission of a complete Summary of Work.
- 9/16/13: BAF revised and approval obtained from Reviewers and BSO.

VII. **Deferred BAFs**

1. *Protocol Number:* **1171-001** *Principal Investigator:* **Liu, David**
Protocol Title: **Regulation and function of ATF5**
Primary Reviewer: **E. Shelden** *Secondary Reviewer:* **G. Trobridge**

- 6/24/13: Deferred by IBC pending revision to the BAF, approval of the facilities and approval of the BSM.
- 7/8/13: Comments sent to PI.
- 7/9/13: BAF submission re-sent to PI.
- 7/30/13: Revised BAF received from PI, along with Penn State's determination that the research does not involve human subjects.
- 8/15/13: PI has informed BSO that BSCs are having HEPA filters replaced.

2. *Protocol Number: 1094-004* *Principal Investigator: Wayman, Gary*

Protocol Title: Regulation of Neuronal Development

Facilities: Current *BSM: Current*

Primary Reviewer: G. Trobridge *Secondary Reviewer: M. Kluzik*

- 7/22/13: deferred by IBC pending submission of the Scope of Work and revision to Section 3 of the BAF.

3. *Protocol Number: 827-007* *Principal Investigator: Thorgaard, Gary*

Protocol Title: Genetic investigations of trout and salmon

Primary Reviewer: S. Russell *Second Reviewer: E. Shelden*

- 8/26/13: Deferred pending revisions to Sections 3 (infectious agents), 4 (rDNA), and 7 (transgenic animals).

VIII. Bio-Incident Reports

- A. ETRL 328- the main door of the room had biohazard signage, while the door adjoining the lab to another was not. A FacOps employee entered the lab through the unsigned door and became concerned about exposure. The lab was not in use at the time and had been used for imaging purposes only. There is a very low probability of exposure.

IX. Adjournment

The meeting adjourned at 14:12

WSU IBC Minutes
October 28, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Mike Heston*	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Adi Nkwonta	Community Member; Pullman Regional Hospital
7.	Hanu Pappu	Plant Pathology
8.	Steve Russell	Office of the Campus Vet
9.	Linda Thomashow	USDA/ARS; Plant Pathology
10.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	College of Veterinary Medicine

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

- The meeting was called to order at 13:12, with a quorum (9 members) present.

II. Minutes – September 23, 2013

Approve. The motion was proposed by G. Trobridge and seconded by A. Nkwonta.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

M. Heston arrived at 13:14 (10 memvbers).

III. BSL – 1 BAFs

A. Renewals:

- 1. Protocol Number: 1034-004 Principal Investigator: Hellmann, Hanjo**
Protocol Title: E3 ligases as Key Regulators of Plant Physiology and Plant Development
Facilities: Current BSM: Current
Primary Reviewer: H. Pappu Secondary Reviewer: E. Shelden

Discussion: There were no concerns with the BAF, nor changes required.

Approve. The motion was proposed by H. Pappu and seconded by E. Shelden.

Total: 10 In favor: 10 Opposed: 0 **Motion Carried (10-0)**

H. Pappu departed the meeting at 13:19. Quorum was maintained (9 members).

IV. **BSL – 2 BAFs**

A. New Protocols:

1. *Protocol Number: 1178-001* *Principal Investigator: Resat, Haluk*
Protocol Title: Receptor Signaling Pathways in Mammary Epithelial Cells
Facilities: ORA to Inspect *BSM: Under Review*

Primary Reviewer: G. Trobridge *Secondary Reviewer: M. Kluzik*

Discussion: There is no BSL-2 work to be performed at this time. The PI has no immediate plans to conduct transgenic work. The BAF is not approvable at BSL-2 at this time, as the vectors have not been identified and the BSC has not arrived yet. However, with some revision, it can be approved at BSL-1 and then amended to BSL-2 when the PI is prepared to conduct that level of work.

Required Changes:

- Change the overall BSL to 1
- Section 2: Uncheck “Infectious Agents.”
- Remove Section 4 from the BAF

Defer, pending completion of the required changes and approval of the FR and BSM. Follow-up by the BSO. The motion was proposed by G. Trobridge and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. *Protocol Number: 1179-001* *Principal Investigator: Owen, Jeb*
Protocol Title: Physiological responses of the ground squirrel flea, Oropsylla montana to abiotic and biotic manipulations
Facilities: Current *BSM: Current*
Primary Reviewer: S. Russell *Secondary Reviewer: P. Butterfield*

Discussion: Much of the work is performed in collaboration with another researcher, and under that researcher’s BAF. The major concern regarding this BAF was the containment of the fleas and prevention of escape during feeding.

Required Changes:

- Clarify the containment of the fleas and how you will prevent escape when containers must be opened to feed

Defer, pending the required clarification. Follow-up by the BSO and Assigned Reviewers. The motion was proposed by S. Russell and seconded by P. Butterfield.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

3. *Protocol Number: 1180-001* *Principal Investigator: Jansen, Heiko*
Protocol Title: Dissection of cellular rhythms using lentiviral techniques
Facilities: Current *BSM: Current*

Primary Reviewer: **E. Shelden**

Secondary Reviewer: **G. Trobridge**

Discussion: There were no concerns with the BAF, nor changes required.

Approve. The motion was proposed by E. Shelden and seconded by G. Trobridge.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

D. Clark departed the meeting at 13:50. Quorum was maintained (8 members)

4. *Protocol Number: 1176-001* Principal Investigator: **Omsland, Anders**
Protocol Title: Coxiella and Chlamydia Metabolism, Physiology and ex vivo Virulence
Facilities: Current BSM: **Current**

Primary Reviewer: **E. Shelden**

Secondary Reviewer: **M. Kluzik**

Discussion: This is a re-review. All of the concerns that were raised the last time this BAF came before the board have been addressed. The only point of debate was whether the sub-category of the III-D NIH category should be D-1, as indicated, or D-3 (with both supplemental questions answered “No”). However, there was no debate that the main category was appropriate and there was no barrier to approval.

The BSO will follow up with the PI to determine the most appropriate sub-category.

Approve. The motion was proposed by M. Kluzik and seconded by E. Shelden.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

B. Renewals:

1. *Protocol Number: 1113-003* Principal Investigator: **Ueti, Massaro**
Protocol Title: Immunologic and pharmacologic control of tick-borne pathogens that affect horses and cattle
Facilities: Current BSM: **Current**

Primary Reviewer: **S. Russell**

Secondary Reviewer: **P. Butterfield**

Discussion: The animal work is not well described in the BAF. However all of this work will occur at the University of Idaho (UI), and does not need to be on the WSU BAF. The list of genes to be cloned is vague and needs to be more specific. Additionally, the III-F NIH category does not appear to be appropriate. Specificity in the genes to be cloned is key to determining the appropriate category.

Required Changes:

- Remove the descriptions of the animal work that will occur at UI from Section 3.
- Section 4: Specify the list of genes to be cloned.
- Section 4: Select the appropriate NIH category, based upon the genes to be cloned.

Defer, pending completion of the required changes. Follow-up by the BSO. The motion was proposed by M. Kluzik and seconded by E. Shelden.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

2. *Protocol Number: 1114-004* *Principal Investigator: Scoles, Glen*
Protocol Title: Determinants of Anaplasma marginale transmission at the vector/pathogen interface AND Immunologic and Pharmacological Interventions of Vector-Borne Babesiosis
Facilities: Current *BSM: Current*

Primary Reviewer: M. Kluzik *Secondary Reviewer: S. Russell*

Discussion: This is another BAF that conducts animal work at UI, which need not be included in the WSU BAF. There are a few typos in the BAF that need correction

Required Changes:

- Section 2: Change the indication of vertebrate animal use to ‘yes’ and remove the UI IACUC number.
- Section 4: In the Host/Vector table, change the BSL to 2
- Remove the descriptions of work performed at UI from the BAF

Defer, pending completion of the required changes. Follow-up by the BSO. The motion was proposed by S. Russell and seconded by G. Trobridge.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

V. **Approved in the Interim**

A. **Administrative Approvals:**

1. *Protocol Number: 923-012* *Principal Investigator: Call, Douglas*
Protocol Title: Detection and Characterization of Bacterial Isolates & Comparative Genomics
Primary Reviewer: M. Kluzik
- 9/26/13: Request to add *Klebsiella pneumoniae* to the approved agents received and approved by BSO.
2. *Protocol Number: 1139-004* *Principal Investigator: Pru, James*
Protocol Title: Mechanisms of Maternal-Embryonic Signaling and Uterine Physiology
Primary Reviewer: M. Kluzik
- 10/8/13: Request to add gammaviral vector system (BSL-2), a new lab and animal room in EALB, and new lab assignments in VBRB received and approved by BSO.
3. *Protocol Number: 1034-005* *Principal Investigator: Hellmann, Hanjo*

Protocol Title: **E3 ligases as Key Regulators of Plant Physiology and Plant Development**

Primary Reviewer: **M. Kluzik**

- 10/10/13: Request to add FMIC to the approved facilities received and approved by BSO.

B. Other Approvals:

1. *Protocol Number:* 1177-001 *Principal Investigator:* Hardy, Michele

***Protocol Title:* Molecular biology of rotavirus replication and immune responses to enteric infection**

***Primary Reviewer:* S. Russell**

***Secondary Reviewer:* D. Clark**

- 9/23/13: Deferred pending approval of the BSM and FRs
- 10/23/13: BSO approved BSM, FR, and BAF.

VI. Deferred BAFs

1. *Protocol Number:* 1171-001 *Principal Investigator:* Liu, David

***Protocol Title:* Regulation and function of ATF5**

***Primary Reviewer:* E. Shelden *Secondary Reviewer:* G. Trobridge**

- 6/24/13: Deferred by IBC pending revision to the BAF, approval of the facilities and approval of the BSM.
- 7/8/13: Comments sent to PI.
- 7/9/13: BAF submission re-sent to PI.
- 7/30/13: Revised BAF received from PI, along with Penn State's determination that the research does not involve human subjects.
- 8/15/13: PI has informed BSO that BSCs are having HEPA filters replaced.

2. *Protocol Number:* 1094-004 *Principal Investigator:* Wayman, Gary

***Protocol Title:* Regulation of Neuronal Development**

***Facilities:* Current *BSM:* Current**

***Primary Reviewer:* G. Trobridge *Secondary Reviewer:* M. Kluzik**

- 7/22/13: deferred by IBC pending submission of the Scope of Work and revision to Section 3 of the BAF.

3. *Protocol Number:* 827-007 *Principal Investigator:* Thorgaard, Gary

***Protocol Title:* Genetic investigations of trout and salmon**

***Primary Reviewer:* S. Russell**

***Second Reviewer:* E. Shelden**

- 8/26/13: Deferred pending revisions to Sections 3 (infectious agents), 4 (rDNA), and 7 (transgenic animals).

2. *Protocol Number:* 1175-001 *Principal Investigator:* Brown, Wendy

Protocol Title:* The Role of CD4+ T-Cell Responses in Protective Immunity to *Theileria parva

***Primary Reviewer:* S. Russell**

***Secondary Reviewer:* M. Kluzik**

- 9/23/13: Deferred pending revision to Section 3 and NIH guidance on disposal of inoculated animals
3. *Protocol Number: 1105-002* *Principal Investigator: Gang, David*
Protocol Title: Control of Natural Product Production in Aromatic Herbs, Spices and Biofuel Plants
Primary Reviewer: H. Pappu *Secondary Reviewer: P. Butterfield*
- 9/23/13: Deferred pending approval of the BSM and FRs.
4. *Protocol Number: 1008-003* *Principal Investigator: Bose, Susmita*
Protocol Title: Developing Materials and Scaffolds for Bone Implants
Primary Reviewer: P. Butterfield *Secondary Reviewer: A. Nkwonta*
- 9/23/13: deferred pending revisions to section 5; List the specific strains of cells used.

VII. New Business

1. Proposed IBC Meeting Schedule for 2014:

MONTH	DEADLINE	MEETING
<i>January</i>	13	27
<i>February</i>	10	24
<i>March</i>	10	24
<i>April</i>	14	28
<i>May</i>	5	19
<i>June</i>	9	23
<i>July</i>	14	28
<i>August</i>	11	25
<i>September</i>	8	22
<i>October</i>	13	27
<i>November</i>	3	17
<i>December</i>	1	15

2. By consensus, the IBC has resolved to review and oversee only work that will be performed in WSU facilities.

VIII. Adjournment

The meeting adjourned at 14:37

WSU IBC Minutes
November 18, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Steve Russell	Office of the Campus Vet
7.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Members Absent:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	College of Veterinary Medicine
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital
3.	Hanu Pappu	Plant Pathology
4.	Grant Trobridge	College of Pharmacy

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The Meeting was called to order at 13:12, with a quorum (7 members) present.

II. Minutes – October 28, 2013

Approve. The motion was proposed by P. Butterfield and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

III. BSL – 1 BAFs

A. Renewals:

1. *Protocol Number: 1040-006* *Principal Investigator: Neff, Michael*
Protocol Title: Translating fundamental plant research into improved agronomic traits in crops.

Primary Reviewer: H. Pappu *Secondary Reviewer: L. Thomashow*

Discussion: There were no concerns regarding the BAF. The FR and BSM have been received and approved by the BSO.

Approve. The motion was proposed by L. Thomashow and seconded by E. Shelden.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *Protocol Number: 1048-003* *Principal Investigator: Inglis, Debra*

*Protocol Title: **Biology and control of soil borne fungal and Oomycete pathogens effecting Washington's specialty potato industry***

*Primary Reviewer: **L. Thomashow***

*Secondary Reviewer: **H. Pappu***

Discussion: There were no concerns with the BAF. The FR and BSM have not been submitted for review.

Defer, pending approval of the FR and BSM. Follow-up by the BSO. The motion was proposed by L. Thomashow and seconded by P. Butterfield.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

IV. BSL – 2 BAFs

A. New Protocols:

1. Protocol Number: 1181-001 *Principal Investigator: **Resat, Haluk***

*Protocol Title: **Receptor Signaling Pathways in Mammary Epithelial Cells***

*Primary Reviewer: **G. Trobridge***

*Secondary Reviewer: **E Shelden***

Discussion: The only concern with the BAF was that the Scope of Work does not clarify if the research procedures include transfecting. The Scope must specifically state whether this occurs as part of the research or not. The BSM has been approved, but the FR cannot be, as the BSC has not been inspected yet.

Required Changes:

- Section 2A: Revise the Scope of Work to specifically describe all transfecting procedures.

Defer, pending BAF revisions and facility approval. Follow-up by the BSO and IBC Chair. The motion was proposed by E. Shelden and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

B. Renewals:

1. Protocol Number: 1052-004 *Principal Investigator: **Neiberger, Holly***

*Protocol Title: **Genetic Resistance to Johne's Disease in Cattle***

*Primary Reviewer: **S. Russell***

*Secondary Reviewer: **P Butterfield***

Discussion: There were no concerns with the BAF. The FR and BSM have not been submitted for review.

Defer, pending approval of the FR and BSM. Follow-up by the BSO. The motion was proposed by S. Russell and seconded by P. Butterfield.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

V. Approved in the Interim

A. Administrative Approvals:

1. Protocol Number: 793-007 *Principal Investigator: **Wyrick, John***

Protocol Title: Gene-specific and Genome-wide Analysis of Chromatin, Histone Modifications, and DNA repair

Primary Reviewer: M. Kluzik

- 11/5/13: Amendment to add a vector received.
- 11/6/13: Amendment approved by BSO.

2. Protocol Number: 1131-001 Principal Investigator: Kostyukova, Alla

Protocol Title: Role of Flis/FlgM Interaction in Flagella Formation

Primary Reviewer: M. Kluzik

- 11/5/13: Amendment to add a plasmid received.
- 11/6/13: Amendment approved by BSO.

3. Protocol Number: 814-012 Principal Investigator: Call, Doug

Protocol Title: Gene Knockouts and Recombinant Proteins

Primary Reviewer: P. Conner

- 11/1/13: Personnel amendment received
- 11/6/13: Amendment approved by Coordinator

4. Protocol Number: 923-013 Principal Investigator: Call, Doug

Protocol Title: Detection and Characterization of Bacterial Isolates & Comparative Genomics

Primary Reviewer: P. Conner

- 11/1/13: Personnel amendment received
- 11/6/13: Amendment approved by Coordinator

B. Other Approvals:

1. Protocol Number: 1178-001 Principal Investigator: Resat, Haluk

Protocol Title: Receptor Signaling Pathways in Mammary Epithelial Cells

Facilities: ORA to Inspect BSM: Under Review

Primary Reviewer: G. Trobridge Secondary Reviewer: M. Kluzik

- 10/28/13: Deferred pending revision, FR and BSM
- 11/1/13: BSO approved BAF after revision and approval of the FR and BSM.

2. Protocol Number: 1113-003 Principal Investigator: Ueti, Massaro

Protocol Title: Immunologic and pharmacologic control of tick-borne pathogens that affect horses and cattle

Facilities: Current BSM: Current

Primary Reviewer: S. Russell Secondary Reviewer: P. Butterfield

- 10/28/13: Deferred pending revision to the BAF.
- 11/15/13: Revised BAF approved by BSO.

VI. Deferred BAFs

1. Protocol Number: 1171-001 Principal Investigator: Liu, David

Protocol Title: Regulation and function of ATF5

Primary Reviewer: E. Shelden Secondary Reviewer: G. Trobridge

- 6/24/13: Deferred by IBC pending revision to the BAF, approval of the facilities and approval of the BSM.
- 7/8/13: Comments sent to PI.
- 7/9/13: BAF submission re-sent to PI.
- 7/30/13: Revised BAF received from PI, along with Penn State's determination that the research does not involve human subjects.
- 8/15/13: PI has informed BSO that BSCs are having HEPA filters replaced.

2. Protocol Number: 1094-004 Principal Investigator: Wayman, Gary

Protocol Title: Regulation of Neuronal Development

Facilities: Current BSM: Current

Primary Reviewer: G. Trobridge Secondary Reviewer: M. Kluzik

- 7/22/13: deferred by IBC pending submission of the Scope of Work and revision to Section 3 of the BAF.

3. Protocol Number: 827-007 Principal Investigator: Thorgaard, Gary

Protocol Title: Genetic investigations of trout and salmon

Primary Reviewer: S. Russell Second Reviewer: E. Shelden

- 8/26/13: Deferred pending revisions to Sections 3 (infectious agents), 4 (rDNA), and 7 (transgenic animals).

4. Protocol Number: 1175-001 Principal Investigator: Brown, Wendy

Protocol Title: The Role of CD4+ T-Cell Responses in Protective Immunity to Theileria parva

Primary Reviewer: S. Russell Secondary Reviewer: M. Kluzik

- 9/23/13: Deferred pending revision to Section 3 and NIH guidance on disposal of inoculated animals

5. Protocol Number: 1105-002 Principal Investigator: Gang, David

Protocol Title: Control of Natural Product Production in Aromatic Herbs, Spices and Biofuel Plants

Primary Reviewer: H. Pappu Secondary Reviewer: P. Butterfield

- 9/23/13: Deferred pending approval of the BSM and FRs.

6. Protocol Number: 1008-003 Principal Investigator: Bose, Susmita

Protocol Title: Developing Materials and Scaffolds for Bone Implants

Primary Reviewer: P. Butterfield Secondary Reviewer: A. Nkwonta

- 9/23/13: deferred pending revisions to section 5; List the specific strains of cells used.

7. Protocol Number: 1114-004 Principal Investigator: Scoles, Glen

Protocol Title: Determinants of Anaplasma marginale transmission at the vector/pathogen interface AND Immunologic and Pharmacological Interventions of Vector-Borne Babesiosis

Facilities: Current BSM: Current

Primary Reviewer: M. Kluzik Secondary Reviewer: S. Russell

- 10/28/13: Deferred pending revision to the BAF.

VII. New Business

1. The IBC meeting schedule for 2014 has been finalized and a Spokane location secured through July.
2. Beginning in January 2014, BAFs will be organized on the Agenda in descending order of BSL (starting at BSL-3), rather than ascending from BSL-1 to BSL-3.

VIII. Adjournment

The meeting adjourned at 13:47

WSU IBC Minutes
December 9, 2013

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Adi Nkwonta*	Community Member; Pullman Regional Hospital
7.	Steve Russell	Office of the Campus Vet
8.	Linda Thomashow	USDA/ARS; Plant Pathology
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	College of Veterinary Medicine
2.	Hanu Pappu	Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

- The meeting was called to order at 13:07, with a quorum (8 members) present.

II. Announcements:

- A. New IBC-RMS System for updating national IBC registrations. Need a current CV, Biosketch or Resume sent in to ibc@wsu.edu from each member.

III. Minutes – November 18, 2013

Approve. The motion was proposed by L. Thomashow and seconded by S. Russell.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

A. Nkwonta arrived at the meeting at 13:11 (9 members)

IV. BSL – 1 BAFs

A. New Protocols:

- 1. Protocol Number: 1182-001 Principal Investigator: McCubbin, Andrew**
Protocol Title: Investigation into the molecular regulation of floral heteromorphy in *Primula vulgaris*
Primary Reviewer: H. Pappu Secondary Reviewer: P. Butterfield

Discussion: The only concerns with the BAF were in Section 4. The PI has indicated NIH category III-E, but did not indicate any sub-category. The reviewer felt that, for

specificity's sake, the E-2 sub-category should be selected. Additionally, the description of the genes to be cloned is insufficient. The Facilities and Biosafety Manual are still outstanding.

Required Changes:

- Section 4: Check sub-category E-2 (under NIH category III-E)
- Section 4: Revise the description of the genes to be cloned to specifically list the genes.

Defer, pending completion of the required changes and approval of the FRs and BSM. Follow-up by the BSO . The motion was proposed by P. Butterfield and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. Protocol Number: 1184-001 Principal Investigator: Lokensgard, Rita

Protocol Title: AAV-induced expression of light-sensitive ion channels and DREADDs

Primary Reviewer: G. Trobridge

Secondary Reviewer: E. Shelden

Discussion: The AAV used should be indicated as an infectious agent, and that section of the BAF must be completed. However, the III-D NiH category in Section 4 may be too restrictive. The IBC determined that III-E, E-1, No was appropriate. Finally, the IBC was not comfortable with the lack of a spill protocol for the AAV that got outside the surgical site, but still on the animal. The Facilities and Biosafety Manual are still outstanding.

Required Changes:

- Section 2: Add a description of your protocol to decontaminate the animal, should the AAV get on the animal, but outside the incision.
- Section 2: indicate that the research involves infectious agents.
- Section 3: Complete and submit this section.
- Section 4: Change the NIH Category to III-E, E-1 and check "No" to the subsequent question

Defer, pending completion of the required changes and approval of the FRs and BSM. Follow-up by the BSO. The motion was proposed by G. Trobridge and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

3. Protocol Number: 1185-001 Principal Investigator: Lokensgard, Rita

Protocol Title: Establishment of cfos-LacZ transgenic rat colony

Primary Reviewer: S. Russell

Secondary Reviewer: M. Kluzik

Discussion: This BAF does not require review by the IBC, as it is merely maintaining a breeding colony of rats.

Classify the work described in the BAF as exempt and withdraw from IBC consideration. The motion was proposed by S. Russell and seconded by M. Kluzik.
Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. *Protocol Number: 1043-003* *Principal Investigator: McCubbin, Andrew*
Protocol Title: Investigation into the role of calcium-dependent protein kinases in pollen tube growth and pollen-pistil interactions
Primary Reviewer: P. Butterfield *Secondary Reviewer: L. Thomashow*

Discussion: The only concern was that there was no sub-category selected under the III-E NIH category. The Facilities and Biosafety Manual are still outstanding.

Required Changes:

- Section 4: Check sub-category E-2 (under NIH category III-E)

Defer, pending completion of the required change and approval of the FRs and BSM. Follow-up by the BSO . The motion was proposed by P. Butterfield and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. *Protocol Number: 1047-003* *Principal Investigator: Glass, Jenny*
Protocol Title: WSU Puyallup plant and insect diagnostic laboratory
Primary Reviewer: H. Pappu *Secondary Reviewer: M. Kluzik*

Discussion: As a diagnostic protocol, this is a grey area regarding the need for IBC review. There were no concerns regarding the BAF. The Facilities and Biosafety Manual are under review.

Defer, pending approval of the FRs and BSM. Follow-up by the BSO . The motion was proposed by M. Kluzik and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

Coordinators note: The ORA had the necessary materials and the BAF was approved.

3. *Protocol Number: 1115-002* *Principal Investigator: Gill, Kulvinder*
Protocol Title: Characterizing genes involved in dwarfing, stress tolerance, and yield in wheat and other cereals
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*

Discussion: The only concern was the discussion of the vectors in Section 4, and that describing them as “commercially available” was not appropriate. The Facilities and Biosafety Manual are still outstanding.

Required Changes:

- Section 4: Revise the vector information to specify the vectors used.

Defer, pending completion of the required change and approval of the FRs and BSM. Follow-up by the BSO and Primary Reviewer. The motion was proposed by P. Butterfield and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

C. Amendments:

1. *Protocol Number: 1153-002* *Principal Investigator: Kahn, Michael*
Protocol Title: The Rhizobial Nitrogen Stress Response and Effective Nitrogen Fixation

Primary Reviewer: M. Kluzik *Secondary Reviewer: L. Thomashow*

Discussion: The amendment includes a non-virulent strain of Listeria. The concern that the IBC had was how the Listeria DNA was obtained and whether the PI was culturing Listeria in order to harvest DNA, which would change the BSL. The facilities and BSM are current and appropriate for BSL-1 work.

Defer, pending clarification on how the Listeria DNA is obtained. Follow-up by the BSO. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

V. BSL – 2 BAFs

A. New Protocols:

1. *Protocol Number: 1183-001* *Principal Investigator: Lokensgard, Rita*
Protocol Title: Gene silencing using intra-cranial infusion of siRNA
Primary Reviewer: E. Shelden *Secondary Reviewer: G. Trobridge*

Discussion: This research may not involve infectious agents or involve the creation of transgenic organisms, and therefore may not need IBC review. The animal containment needs to be clarified. The Facilities and Biosafety Manual are still outstanding.

Additionally, The BSO will seek guidance from the NIH regarding the proper NIH category for this research, which may end up being exempt.

Required Changes:

- Section 2: Revise the animal containment description to clarify how the animals will be contained/isolated during research procedures.

Defer, pending completion of the required change and approval of the FRs and BSM. Follow-up by the BSO. The motion was proposed by P. Butterfield and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. *Protocol Number: 867-011* *Principal Investigator: Konkel, Michael*

Protocol Title: A novel approach to identify the virulence proteins secreted by Campylobacter jejuni

Primary Reviewer: S. Russell

Secondary Reviewer: M. Kluzik

Discussion: The facilities list includes locations for work that has been discontinued. There are formatting changes in the BAF (due to the PI's use of a Mac) that result in some confusion in Section 4 regarding the NIH category and sub-categories. The Facilities (due to the BSCs) and Biosafety Manual are still outstanding.

Required Changes:

- Section 2: Remove the Steer housing (ARU and Wegner Hall) from the facilities.
- Section 4: clarify if the III-D NIH category is correct and if D-1 or D-2 is the correct sub-category.

Defer, pending completion of the required changes and approval of the FRs and BSM. Follow-up by the BSO. The motion was proposed by S. Russell and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. Protocol Number: 1117-002 Principal Investigator: Jasmer, Douglas

Protocol Title: Intestinal genes of nematodes

Primary Reviewer: P. Butterfield

Secondary Reviewer: A. Nkwonta

Discussion: The facilities list does not include the housing locations for the sheep and goats. Section 3 does not describe the work performed on mice. Section 4 incorrectly indicates that the vectors and source of DNA are BSL-1 (the correct BSL is 2). The Facilities and Biosafety Manual are current.

Required Changes:

- Section 2: Add the locations for sheep and goats to the facilities list.
- Section 3: Revise question #2 to describe the work performed on mice.
- Section 4: Revise the matrix containing the vector, host, genes and DNA sources to indicate that the materials require BSL containment

Defer, pending completion of the required changes. Follow-up by the BSO and assigned reviewers. The motion was proposed by M. Kluzik and seconded by P. Butterfield.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

VI. Approved in the Interim

A. Administrative Approvals:

1. Protocol Number: 1177-002 Principal Investigator: Hardy, Michele

Protocol Title: Molecular biology of rotavirus replication and immune responses to enteric infection

Primary Reviewer: P. Conner

- 11/26/13: Personnel amendment received
- 12/2/13: Amendment approved by coordinator.

B. Other Approvals:

1. *Protocol Number:* **1181-001** *Principal Investigator:* **Resat, Haluk**
Protocol Title: **Receptor Signaling Pathways in Mammary Epithelial Cells**
Primary Reviewer: **G. Trobridge** *Secondary Reviewer:* **E Shelden**

- 11/18/13: deferred pending revision to the BAF and FR approval.
- 11/21/13: BSC inspected, FR approved and revised BAF approved.

2. *Protocol Number:* **1114-004** *Principal Investigator:* **Scoles, Glen**
Protocol Title: **Determinants of Anaplasma marginale transmission at the vector/pathogen interface AND Immunologic and Pharmacological Interventions of Vector-Borne Babesiosis**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **M. Kluzik** *Secondary Reviewer:* **S. Russell**

- 10/28/13: Deferred pending revision to the BAF.
- 11/20/13: Revised BAF approved by BSO.

3. *Protocol Number:* **1008-003** *Principal Investigator:* **Bose, Susmita**
Protocol Title: **Developing Materials and Scaffolds for Bone Implants**
Primary Reviewer: **P. Butterfield** *Secondary Reviewer:* **A. Nkwonta**

- 9/23/13: deferred pending revisions to section 5; List the specific strains of cells used.
- 11/26/13: BSO sent comments to PI.
- 12/2/13: PI response to comments.
- 12/3/13: BAF approved by BSO.

VII. Deferred BAFs

1. *Protocol Number:* **1171-001** *Principal Investigator:* **Liu, David**
Protocol Title: **Regulation and function of ATF5**
Primary Reviewer: **E. Shelden** *Secondary Reviewer:* **G. Trobridge**

- 6/24/13: Deferred by IBC pending revision to the BAF, approval of the facilities and approval of the BSM.
- 7/8/13: Comments sent to PI.
- 7/9/13: BAF submission re-sent to PI.
- 7/30/13: Revised BAF received from PI, along with Penn State's determination that the research does not involve human subjects.
- 8/15/13: PI has informed BSO that BSCs are having HEPA filters replaced.

2. *Protocol Number:* **1094-004** *Principal Investigator:* **Wayman, Gary**
Protocol Title: **Regulation of Neuronal Development**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **G. Trobridge** *Secondary Reviewer:* **M. Kluzik**

- 7/22/13: deferred by IBC pending submission of the Scope of Work and revision to Section 3 of the BAF.

3. Protocol Number: 827-007 Principal Investigator: Thorgaard, Gary
Protocol Title: Genetic investigations of trout and salmon
Primary Reviewer: S. Russell Secondary Reviewer: E. Shelden

- 8/26/13: Deferred pending revisions to Sections 3 (infectious agents), 4 (rDNA), and 7 (transgenic animals).

4. Protocol Number: 1175-001 Principal Investigator: Brown, Wendy
Protocol Title: The Role of CD4+ T-Cell Responses in Protective Immunity to Theileria parva
Primary Reviewer: S. Russell Secondary Reviewer: M. Kluzik

- 9/23/13: Deferred pending revision to Section 3 and NIH guidance on disposal of inoculated animals

5. Protocol Number: 1105-002 Principal Investigator: Gang, David
Protocol Title: Control of Natural Product Production in Aromatic Herbs, Spices and Biofuel Plants
Primary Reviewer: H. Pappu Secondary Reviewer: P. Butterfield

- 9/23/13: Deferred pending approval of the BSM and FRs.
-

6. Protocol Number: 1048-003 Principal Investigator: Inglis, Debra
Protocol Title: Biology and control of soil borne fungal and Oomycete pathogens effecting Washington's specialty potato industry
Primary Reviewer: L. Thomashow Secondary Reviewer: H. Pappu

- 11/18/13: Deferred pending approval of BSM and FRs.

7. Protocol Number: 1052-004 Principal Investigator: Neiberghs, Holly
Protocol Title: Genetic Resistance to Johne's Disease in Cattle
Primary Reviewer: S. Russell Secondary Reviewer: P Butterfield

- 11/18/13: Deferred pending approval of BSM and FRs.

VIII. Adjournment

The meeting adjourned at 14:23.

WSU IBC Minutes
January 27, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Adi Nkwonta	Community Member; Pullman Regional Hospital
7.	Hanu Pappu	Plant Pathology
8.	Steve Russell	Office of the Campus Vet
9.	Linda Thomashow	USDA/ARS; Plant Pathology
10.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	David Clark	Research Compliance

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:11, with a quorum (10 members) present.

II. Announcements:

A. FDA audit of the IRB and how it effects the IBC minutes.

- One comment the FDA inspector had was that the deferred protocols were never recorded as approved in the minutes, and future versions of the minutes should read similar to “the protocol may be approved when the required changes are completed to the satisfaction of the BSO.” The specific phrase will vary, depending upon the specific requirements and who will evaluate those changes, contained in the motion. One member asked if this was necessary, given the “Approved in the Interim” section in both the Agenda and Minutes. The coordinator will follow up with the ORA Director regarding this question.

III. Minutes – December 9, 2013:

Approve. The motion was proposed by H. Pappu and seconded by E. Shelden.

Total: 10 In favor: 10 Opposed: 0 **Motion Carried (10-0)**

The agenda order was revised to accommodate members who needed to leave early.

IV. BSL – 2 BAFs

A. Renewals:

1. **BAF Number:1054-004** *Principal Investigator: Thomashow, Linda*
Title: Biological control and molecular genetics of root diseases of wheat, barley and biofuel brassicas
Facilities: Assigned to ORA **BSM: Update Requested 1/6**

Primary Reviewer: H. Pappu *Secondary Reviewer: E. Shelden*

As she is the PI of the BAF under review, L. Thomashow recused herself from the discussion and vote, due to the conflict of interest. Quorum was maintained (9 members).

Discussion:

The only concern was that the NIH categories selected (III-E, E-2 and III-F) were not appropriate to the rDNA used in the research, as it requires BSL-2 containment. The appropriate category, and sub-category, are III-D, D-2. Additionally, the Facilities and BSM have yet to be approved.

Required Changes:

- Section 4: Remove the III-E, E2 and III-F NIH categories for rDNA, and replace with III-D, D-2.

Defer, pending completion of the required change and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by M. Kluzik and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

L. Thomashow returned to the meeting (10 members)

B. New Protocols:

1. **BAF Number: 1186-001** *Principal Investigator: Van Wie, Bernard*
Title: A Novel Centrifugal Bioreactor for Investigating Synergistic Influences of Pressure and Growth Factor on Chondrogenesis, and for Establishing Laboratory Cell Lines for Prostate Cancer Therapy Studies
Facilities: Inspected (awaiting BSC cert. to approve) BSM: Under Review

Primary Reviewer: P. Butterfield *Secondary Reviewer: A. Nkwonta*

Discussion:

The BAF indicates that vertebrate animals are involved in the research, but there is no information on the animal housing or containment. However, it appears that blood will be drawn from animals and there are no procedures subject to the IBC involving animals. If this is the case, the indication that animals are involved can be removed. If not, the description of procedures must be revised to include the animal procedures, and the animal facilities and containment must be added. Additionally, the location

where flow cytometry will occur was not included. The facilities have been inspected and can be approved, once the BSC is re-certified. The BSM is under review.

Required Changes:

- Section 2B: Change the indication of vertebrate animal use from 'Yes' to 'No.'
- Section 2G: Add the facility where the flow cytometry will occur to the facilities table.

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by P. Butterfield and seconded by L. Thomashow.

Total: 10 In favor: 10 Opposed: 0 **Motion Carried (10-0)**

H. Pappu and A. Nkwonta left the meeting. Quorum was maintained (8 members).

C. Renewals:

2. **BAF Number: 856-007** *Principal Investigator: Rodgers, Buel (Dan)*
Title: Molecular Regulation of Skeletal Muscle Growth and Development
Facilities: Current BSM: Current

Primary Reviewer: S. Russell Secondary Reviewer G. Trobridge

Discussion:

The discussion centered on an apparent contradiction in the BAF regarding animal containment; some locations list ABSL-2, and others ABSL-1. However, the AAV used in this research is not infectious, and does not require BSL-2 containment, unless it has helper viruses. Once purified, it will be helper free. The committee determined that, rather than require an increase in the ABSL in order to be consistent at ABSL-2 and a revision to the BAF, the PI could implement a SOP to maintain ABSL-2 containment from the point that the animals are injected through the following week, and then ABSL-1 containment will be sufficient.

Defer, pending approval of the SOP for animal containment. The BAF may be approved when this is completed, to the satisfaction of the BSO. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

3. **BAF Number: 1058-004** *Principal Investigator: Alderete, John*
Title: The study of Trichomonas vaginalis Serodiagnostic Targets
Facilities: Current BSM: Current

Primary Reviewer: L. Thomashow Secondary Reviewer: D. Clark

Discussion:

The only concern was that the NIH subcategory, listed as III-E, E-1, is more appropriately described as III-E, E-2. The BSO spoke with the PI earlier in the day about this, and the PI agreed to this change.

Required Changes:

- Section 4: Revise the NIH category from III-E, E-1 to III-E, E-2. This can be performed administratively, as the PI has already agreed to this change.

Approve, once the administrative change has been made. The motion was proposed by L. Thomashow and seconded by M. Kluzik.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

4. *BAF Number:* **1060-005** *Principal Investigator:* **Mealey, Katrina**
Title: **Functional studies of feline, canine and human ABC Transporters**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **D. Clark**

Secondary Reviewer: **M. Kluzik**

Discussion:

The PI is transfecting plasmids, which are not DNA/RNA viruses. Therefore, the III-D, D-3 NIH category is not necessary, but rather, III-E, E-1 is more appropriate. The IBC also confirmed that there are no infectious agents, and Section 3 of the BAF is not needed.

Required Changes:

- Section 4: Revise the NIH category from III-D, D-3 to III-E, E-1. This can be performed administratively, as it a lesser category.

Approve, once the administrative change has been made. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

5. *BAF Number:* **1116-002** *Principal Investigator:* **Jones, Jeffrey**
Title: **Aldehyde Oxidase**
Facilities: **Inspected, not approved** *BSM:* **Current**

Primary Reviewer: **P. Butterfield**

Secondary Reviewer **M. Kluzik**

Discussion:

There were no concerns regarding the BAF, nor changes required. The only barrier to approval is the facility approvals.

Defer, pending approval of the facilities. The BAF may be approved when this condition is completed, to the satisfaction of the BSO.

The motion was proposed by M. Kluzik and seconded by P. Butterfield.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

D. Amendments:

1. *BAF Number:* **825-008** *Principal Investigator:* **Davis, William**
Title: **Role of IL-17, IL-22, IL-23 and Regulatory T-Cells in Pathogenesis of Johne's Disease, Crohn's Disease and bovine tuberculosis**

Facilities: Current *BSM: Update requested 1/27*

Primary Reviewer: G. Trobridge *Secondary Reviewer: S. Russell*

Discussion:

The amendment request does not do a good job of describing the amended procedures. It appears as if all but the final 2 paragraphs of the amendment description describe work that has prior approval and can be removed from the amendment. Also not clear is the source of the BCG used in the research. A revised BSM for the amended research has been requested, but not yet received.

Required Changes:

- Clarify the amended procedures and agents. It may be possible to fulfil this required change by removing all but the last two paragraphs of the amendment description.
- Clarify the source of the BCG.

Defer, pending completion of the required changes and approval of the BSM.

The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by M. Kluzik and seconded by G. Trobridge.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

V. BAFs Approved in the Interim

A. Administrative Approvals:

M. Kluzik: There are several researchers moving their research to Wegner Hall in the wake of the School of Pharmacy moving to the Spokane Campus. This will result in multiple administrative amendment approvals in both Wegner and the new facilities in Spokane in the near future.

VI. Adjournment

The meeting adjourned at 14:30.

WSU IBC Minutes
February 24, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Diaz-Campos, Dubraska	College of Veterinary Medicine
5.	Mike Heston	Community Member; Pullman Fire Department
6.	Mike Kluzik	Biosafety Officer; Research Compliance
7.	Steve Russell	Office of the Campus Vet
8.	Linda Thomashow	USDA/ARS; Plant Pathology
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Adi Nkwonta	Community Member; Pullman Regional Hospital
2.	Hanu Pappu	Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:11, with a quorum (9 members) present.

II. Announcements:

A. The IBC-RMS submission was accepted by the NIH/OBA on 2/3/2014. There was no discussion.

III. Minutes – January 27:

Approve. The motion was proposed by S. Russell and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

IV. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number:* **1187-001** *Principal Investigator:* **Palmer, Guy**
Title: **Genetic characterization of a Chlamydia-like organism’s DNA**
Primary Reviewer: **E. Shelden** *Secondary Reviewer:* **P. Butterfield**

Discussion:

There were no concerns voiced or changes required. The biosafety manual is not yet complete or approved.

Defer, pending approval of the BSM. The BAF may be approved when this condition is completed, to the satisfaction of the BSO. The motion was proposed by E. Shelden and seconded by P. Butterfield.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. *BAF Number: 891-007* *Principal Investigator: Rayapati, Naidu*
Title: Characterization, Molecular Biology, and Epidemiology of Viral Diseases in Horticultural Crops
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*

Discussion:

There was concern that Sections 3 did not specify the viruses used and that section 4 needed to specify the strain of E-coli and the genes to be cloned. The Facility Inspection Reports and BSM have yet to be submitted. Historically, the BAF has also included an APHIS permit. The current permit has been requested by the BSO, but not received yet.

Required Changes:

- Section 3: Specify the viruses used in the research.
- Section 4: Specify the strain of E-coli used as host for the rDNA.
- Section 4 : Specify the genes to be cloned in the research.

Defer, pending completion of the required changes, submission of the APHIS Permit, and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. *BAF Number: 1118-002* *Principal Investigator: Besser, Thomas*
Title: Mycoplasma Ovipneumoniae in Domestic and Bighorn Sheep
Primary Reviewer: S. Russell *Secondary Reviewer: D. Diaz-Campos*

Discussion:

The only concern was the description of the animal containment facilities lists them as ABSL-1, when listing them as ‘Other’ seems more appropriate. The BSO has spoken to the PI about this, and the PI has agreed to make the change. The change can be made administratively and need not delay approval. The facilities and BSM are current.

Required Changes:

- Section 2: Revise the biosafety levels of the animal pens from “ABSL-1” to “Other.” This has been agreed to by the PI and can be performed administratively.

Approve, once the administrative change has been made. The motion was proposed by S. Russell and seconded by D. Diaz-Campos.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

V. Biosafety Program Update

- The BSO has been seeking guidance regarding SiRNA, and whether it is subject to the NIH guidelines. The NIH has said that SiRNA are recombinant molecules, but that only their generation is covered. Mere use of SiRNA is exempt. There is the possibility that the ORA could generate a one page form that is specifically tailored to those only using exempt recombinant DNA.

VI. Adjournment

The meeting was adjourned at 13:38.

WSU IBC Minutes
March 24, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	David Clark	Research Compliance
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Hanu Pappu*	Plant Pathology
7.	Steve Russell	Office of the Campus Vet
8.	Linda Thomashow	USDA/ARS; Plant Pathology
9.	Grant Trobridge*	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:10, with a quorum (7 members) present.

II. Minutes – February 24

Approve. Motion was proposed by D. Clark, and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

Members G. Trobridge and H. Pappu arrived at the meeting at 13:13 and 13:15, respectively (9 members).

III. BSL – 2 BAFs

A. New Protocols:

1. **BAF Number:1188-001** *Principal Investigator: Cornejo, Omar*

Title: Ecology and Evolution of Clonal Suicide: when is the cost of bacteriocin production not too high?

Facilities: Current BSM: Current

Primary Reviewer: P. Butterfield

Secondary Reviewer: A. Nkwonta

Discussion:

The biggest concern was that the PI wants glove use to be optional in the laboratory when work on the open bench is performed, saying that their use around open flames constitutes a fire hazard, and

this hazard exceeds the risk of biological contamination. The committee members did not agree and saw glove use as mandatory, although the fire hazard was acknowledged. Another concern was that the principle investigator has indicated that vaccines are available for the infectious agents used in this research, but will not be offered to research personnel. The IBC contended that if vaccines were available, they should be offered to laboratory personnel or adequate justification for not offering the vaccinations must be provided. Additionally, the external parts of the Chemostat needed secondary containment, in order to contain any spills or drips. Finally, laboratory personnel must wear respirators when working with materials outside of the biosafety cabinet (BSC).

Required Changes:

- Section 3, item 1: Revise to include a description of secondary containment procedures for the external portions of the Chemostat.
- Section 3, Item 2: Revise to include the source(s) of the Streptococcus pyogenes, Streptococcus mitis and Streptococcus oralis.
- Section 3, Item 3: Remove the statement that the use of gloves is discouraged. The IBC requires glove be worn at all times when working with biological agents in the laboratory. To mitigate the risk of burns, the IBC suggested electrical, flameless heaters be used, rather than open flame.
- Section 3, Item 3: provide justification why vaccinations are not being offered to personnel, or revise to indicate that vaccines will be offered, and how personnel will go about obtaining these vaccinations.
- Section 3, Item 3: Revise to indicate that, for all work with biologicals that occurs outside of a BSC, laboratory personnel will wear respiratory protection.
- Section 3, Item 4: Specify that all transportation between facilities, including across the hall to the autoclave facilities, will occur in double contained, leak-proof containers.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers.

The motion was proposed by M. Kluzik and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. *BAF Number:***1189-001** *Principal Investigator:* **Cornejo, Omar**
Title: **Population dynamics of the genomic architecture of Plasmodium vivax and the host response to the infection**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **L. Thomashow** *Secondary Reviewer:* **D. Diaz-Campos**

Discussion:

The major concern was that it was not clear whether or not the DNA extracted from the blood samples would be directly analyzed as-is, or if it would be cloned or amplified before analysis. There were also some technical details in the BAF that required revision, such as a question of whether the infectious agents used required a permit, and whether the blood samples contained a characterized agent.

Required Changes:

- Clarification: Clarify if the extracted DNA is going to be analyzed directly or will it be cloned or amplified before analysis. If cloning or amplification will occur, complete and submit Section 4 of the BAF (rDNA).

- Section 3, Item 7: revise to list all materials that require federal permits, if any. Additionally, submit all required permits.
- Section 5, Item 6: Change the answer to this question from ‘No’ to ‘Yes.’

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers.

The motion was proposed by L. Thomashow and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

3. *BAF Number:* **1190-001** *Principal Investigator:* **Desouza, Cleverson**
Title: **Immunological studies with Mycobacterium avium subspecies paratuberculosis**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **D. Clark**

Secondary Reviewer: **S. Russell**

Discussion:

There is some confusion on the BAF on the involvement of animals in the research (both invertebrate and vertebrate). It is not clear from the BAF what is the source of leukocytes and macrophage cells, nowhere is the source of bovine blood (drawn from the living animal world change from a “blood bank”) described. Finally, the 70% ethanol solution is not adequate for disinfection/ deactivation. The other methods described, however, are adequate and revision is not necessary.

Required Changes:

- Section 2, Item C: Are invertebrate animals involved in the research? If not, revise the answer to this question. If so, then add them to the table in G, and describe their involvement in your Scope of Work.
- Section 2, Table G: double check the room location in the ADBF. Revise if necessary (The IBC has no record of a room 432 in the ADBF, the majority of ADBF rooms having 4 digits).
- Section 3, Item 2: revise to include the source of the leukocytes and macrophage cells, and how you will be obtaining the bovine blood (i.e. Drawn from a living animal by research personnel or if it is obtained from stored samples).
- Section 3, Item 5: Delete “or 70% ethanol” from the method of terminal inactivation. No other revision is necessary, as the remaining methods are sufficient.
- Section 3, Item 6: clarify what is meant by “Inoculated animals will not be handled in WSU facilities.” If this phrase is intended to mean that no animals are involved in the research, simply replace the statement with “N/A.”

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by S. Russell and seconded by D. Clark.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

4. *BAF Number:1191-001* *Principal Investigator: Ritter, W Sue*
Title: Neural Pathways for Metabolic Controls of Ingestion (R01 DK040498); Mechanisms of Fatty Acid Control of Feeding Behavior (R01 DK097437-01)
Facilities: Not current *BSM: Under review*

Primary Reviewer: E. Shelden *Secondary Reviewer: G. Trobridge*

Discussion:

There were two major concerns with the BAF. First, from the description of the procedures, it does not appear that all work will be done in a biosafety cabinet or was appropriate respiratory protection. The second concern was that the “Bartha” strain of the pseudorabies virus is described as not being an animal hazard. The IBC decided that justification was needed for this contention.

Required Changes:

- Clarification: Clarify why the Bartha strain of the pseudorabies virus is not an animal hazard.
- Section 2, Plan of Work: in the section you have entitled **Procedures for Use of Viruses,** include a statement that all procedures will be performed inside a biosafety cabinet, or, when a biosafety cabinet is not available, respiratory protection will be employed.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers.

The motion was proposed by E. Shelden and seconded by G. Trobridge.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. *BAF Number:1121-004* *Principal Investigator: Brown, R Lane*
Title: Retinal & Brain Circuitry
Facilities: Not current *BSM: Update requested 3/12*

Primary Reviewer: G. Trobridge *Secondary Reviewer E. Shelden*

Discussion:

The BAF was mostly complete. The IBC just needed some clarifications/specifications in certain areas.

Required Changes:

- Section 2, Plan-of-Work: revise to indicate that inoculated animals will be maintained at ABSL-2 containment.
- Section 3, Item 3: revise to include whether or not vaccinations for SAD-B19 modified rabies virus will be offered to laboratory personnel, and, if not, why.
- Section 4: revise to include the biosafety level of the genes to be cloned and the DNA/RNA source(s).

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by G. Trobridge and seconded by E. Shelden.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

IV. BSL – 1 BAFs:

A. New Protocols:

1. BAF Number:1192-001 *Principal Investigator: Karatsoreos, Ilia*

Title: Genetic Control of Homeostatic Function

Facilities: Current *BSM: Under Review*

Primary Reviewer: G. Trobridge

Secondary Reviewer: S. Russell

Discussion:

The only concern was that, in Section 2, the PI listed the animal containment as “none,” when it should be listed as ABSL-1. This need not delay the approval and can be revised administratively.

Required Changes:

- Section 2: change the level of animal containment from “none” to ABSL-1. This can be done administratively, with PI approval.

Approve with the above administrative change. The motion was proposed by G. Trobridge and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. BAF Number:1119-003 *Principal Investigator: Knowles, Donald*

Title: Domestic and bighorn sheep pneumonia - immunological correlates, intervention, and prevention

Facilities: Current *BSM: possibly needs upgrading to BSL-2*

Primary Reviewer: S. Russell

Secondary Reviewer: M. Kluzik

Discussion:

The cholera toxin is a BSL-2 toxin, but the BAF was submitted at BSL-1. Some clarification is needed. Additionally, the animal housing areas cannot truly be listed as ABSL-1, and should be RE classified as “other.”

Required Changes:

- Section 2, Item G: Revise to indicate the containment level of the USDA Endo Disease farms (197H and 197E) and the Veterinary Ruminant Barn (160B) from ABSL-1 to “other.”
- Section 3: check and verify that the cholera toxin (holotoxin) requires BSL-2 containment. If so, the BAF must be revised and resubmitted at BSL-2.

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers.

The motion was proposed by M. Kluzik and seconded by S. Russell.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. **BAF Number:1061-006** *Principal Investigator: Vonwettstein, Dietrich Holger*
Title: Wheat for Celiac Patients and Advances in Human Nutrition Across All Age Groups
Facilities: Current BSM: Current

Primary Reviewer: H. Pappu

Secondary Reviewer: L. Thomashow

Discussion:

There were no concerns regarding the BAF. The BSO just needs to check and ensure that the APHIS permit is current.

Approve, provided that the APHIS permit is current (if not, the approval process can be completed as soon as a current permit is on file). The motion was proposed by H. Pappu and seconded by L. Thomashow.

Total: 9 In favor: 9 Opposed: 0

Motion Carried (9-0)

V. Bio-Incident Reports

1. WADDL incident – Mellick 3/13
2. ChemE&B – Harrington 3/11

The BSO will follow up regarding both of these incidents.

VI. Adjournment

The meeting was adjourned at 14:55.

WSU IBC Minutes
April 28, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	David Clark	Research Compliance
4.	Diaz-Campos, Dubraska	College of Veterinary Medicine
5.	Mike Heston	Community Member; Pullman Fire Department
6.	Mike Kluzik	Biosafety Officer; Research Compliance
7.	Adi Nkwonta	Community Member; Pullman Regional Hospital
8.	Steve Russell	Office of the Campus Vet
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Hanu Pappu	Plant Pathology
2.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:10, with a quorum (8 members) present.

II. Minutes – March 24, 2014

Approve. The motion was proposed by G. Trobridge, and seconded by M. Heston.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

III. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1193-001* *Principal Investigator: Zhu, Jiyue*

Title: Repression of hTERT gene during cell differentiation

Primary Reviewer: G. Trobridge *Secondary Reviewer: H. Pappu*

Discussion:

There are several minor changes that need to be made in the BAF. Section 5, however, needs a more major change. This section needs to indicate that the HeLa

cells do contain characterized agents. Additionally, this will require revision to Section 3.

In the future, this research will involve the creation of transgenic mice and will need to be amended.

Required Changes:

- Section 2: revise the answer to the question about the use of a vertebrate animals from no to yes, and provide the ASAF number.
- Section 3: Revise to include the HeLa cells in the table of infectious agents, and addressed in the questions below.
- Section 4: change the NIH category to III-D, D-3 and answer both the supplemental questions 'No'.
- Section 5: revise the answer to question six (characterized agents) from no to yes.

Defer, pending completion of the required changes. The changes may be completed administratively and sent to the PI for approval. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by M. Kluzik and seconded by G. Trobridge.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

2. *BAF Number: 1195-001* *Principal Investigator: Bose, Santanu*

Title: Viral innate immunity

Facilities: Current *BSM: None on Record*

Primary Reviewer: S. Russell

Secondary Reviewer: E. Shelden

Discussion:

The only concern with the BAF was the vague description of the protective measures used during infection procedures. The BSO also felt that an animal husbandry and care SOP would be a good idea, but stopped short of requiring this change.

Required Changes:

- Section 2: revise to clarify the protective measures used by the personnel during infection procedures. Pay special attention to personal protective equipment (PPE) and if sharps will be used.

Recommendations (not required):

- Work with the BSO to develop and animal care and husbandry SOP.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by E. Shelden and seconded by S. Russell.
Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

B. Renewals:

1. **BAF Number: 1067-005** *Principal Investigator: Lau, Audrey*
Title: Loss of virulence in a model apicomplexan parasite

Primary Reviewer: M. Kluzik *Secondary Reviewer: D. Diaz-Campos*

Discussion:

The only problem with the BAF was that the NIH category for recombinant DNA was incorrect.

Required Changes:

- Section 4: Revise to indicate the NIH category III-E, E-1 and answer 'no' in the supplemental question.

Defer, pending completion of the required changes. The changes may be completed administratively and sent to the PI for approval. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by M. Kluzik and seconded by D. Diaz-Campos.
Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

IV. **BSL – 1 BAFs**

A. New Protocols:

1. **BAF Number: 1194-001** *Principal Investigator: Wang, Zhenjia*
Title: Nanoparticle Drug Delivery

Primary Reviewer: P. Butterfield *Secondary Reviewer: M. Kluzik*

Discussion:

Primarily, this BAF was submitted at the wrong biosafety level. The agents used in this research indicate BSL-2 level of containment is necessary. Section 5 needs to indicate that the HeLa cells do contain characterized agents. Additionally, this will require revision to Section 3. The biosafety Manual must still be approved.

Required Changes:

- Section 2.F: change the biosafety level to BSL-2.
- Section 2.G: add the location where the mice are housed.
- Section 2.H: revise to indicate that the research involves infectious agents.
- Section 3: complete and submit this section in order to reflect the HeLa cells as containing an infectious agent.
- Section 5.6: revise the answer to question six (characterized agents) from no to yes.

Defer, pending completion of the required changes and approval BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by M. Kluzik and seconded by P. Butterfield.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

V. Bio-Incident Reports

1. Hof Incident

Discussion:

The exposure did not include cells that had been transfected. No exposure to recombinant DNA. However, the NIH was informed of the incident. The IBC took no action regarding this incident.

2. Nazempour Incident

Discussion:

The HEPA filters in this biosafety cabinet had never been removed from their original wrappings, merely circulating the air without filtering out potentially infectious particles. There have been made no reports of any illness or symptoms related to use of this biosafety cabinet. The IBC took no action regarding this incident.

3. Rae Incident

Discussion:

The HVA/C in the building failed, negating the exhaust fans from the biosafety cabinets (B2 model), while the supply fans remained in operation. This resulted in the lab generating positive pressure. None of the cabinets in the lab has been used was bio-materials for at least 18 hours and he had been properly cleaned per the Biosafety Manual. The IBC directed the biosafety officer to follow-up with the cabinet manufacturer to determine if these types of cabinets are equipped with backflow dampers (and redundancies) to prevent the production of potentially infectious aerosols in the event of exhaust failure. The BSO will also monitor the situation regarding the HVA/C.

VI. Open Discussion:

G. Trobridge that raised a concern regarding the weighing of powder within a fume hood. The SOP calls for this, but the air movement within the hood may aerosolize dangerous dust particles. He inquired whether personal protective equipment would be sufficient and the powder could be weighed on the open bench. M. Kluzik said that they were fume hoods that were designed specifically with this problem in mind, and that WSU had procured several. One would be made available for the Trobridge lab.

VII. Adjournment

The meeting adjourned at 14:17.

WSU IBC Minutes
June 2, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Steve Russell	Office of the Campus Vet
6.	Linda Thomashow	USDA/ARS; Plant Pathology
7.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	David Clark	Research Compliance
2.	Mike Heston	Community Member; Pullman Fire Department
3.	Adi Nkwonta	Community Member; Pullman Regional Hospital
4.	Hanu Pappu	Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:07, with a quorum (7 members) present.

II. Minutes – April 28, 2014

Approve. The motion was proposed by S. Russell and seconded by M. Kluzik.

Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

L. Thomashow abstained from the vote, citing absence at the meeting in question.

III. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1196-001* *Principal Investigator: Crespo, Rocio*
Title: Inactivation of infectious bursal disease virus through compost of litter from poultry houses
Facilities: Current *BSM: Current*

Primary Reviewer: S. Russell *Secondary Reviewer: D. Diaz-Campos*

Discussion:

Although filed with WSU, the USDA is the primary agency overseeing this research. There were no concerns nor changes required.

Approve. The motion was proposed by S. Russell and seconded by D. Diaz-Campos.
Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *BAF Number: 1197-001* *Principal Investigator: Li, Weimin*
Title: Nuclear signaling regulation of cell growth and tumorigenesis
Facilities: Current BSM: Current
- Primary Reviewer: P. Butterfield* *Secondary Reviewer: E. Sheldon*

Discussion:

Initially, there was some concern that vaccinations were not being offered for exposure to HeLa cells. However, the BSO clarified that the NIH has stated that commercially available HeLa does not contain sufficient genetic material to be infectious. There were no other concerns, nor changes required.

Approve. The motion was proposed by E. Sheldon and seconded by P. Butterfield.
Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

B. Renewals:

1. *BAF Number: 1123-002* *Principal Investigator: Nicola, Anthony*
Title: Herpes simplex virus entry into host cells
Facilities: Current BSM: Under review
- Primary Reviewer: D. Diaz-Campos* *Secondary Reviewer: G. Trobridge*

Discussion:

Human papilloma virus (HPV) is listed among the infectious agents, but its use is not described among the procedures. The board questioned whether it was included simply because of the use of HeLa. The biosafety level of the host, vector, and genes to be cloned was not addressed. Additionally, the NIH category III-D, D-3 was more appropriate to the research than the III-E classification.

Required Changes:

- Section 3.1: Explain how the Human papilloma virus 18 will be used in the research.
- Section 4: Change the NIH category for rDNA use to III-D, D-3.
- Section 4: In the "Host, vector and gene biosafety information" matrix, indicate the BSL of the host, vector, and genes to be cloned.

Defer, pending completion of the required changes and approval of the BSM.

The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers. The motion was proposed by M. Kluzik and seconded by D. Diaz-Campos.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *BAF Number: 899-011* *Principal Investigator: Srikumaran, Subramaniam (Sri)*
Title: Host Cell Receptors for Mannheimia (Pasteurella) Haemolytica
Leukotoxin
Facilities: Current *BSM: Current*

Primary Reviewer: S. Russell

Secondary Reviewer: M. Kluzik

Discussion:

The PI is using an outdated version of the BAF. However, the information is sufficient to complete the review. In Section 2, when requested to provide an abstract, the BAF says “see attached.” However, no abstract was attached. In Section 3, transport of bacteria must be done within double contained leak proof containers. As an additional requirement, the IBC would like a positive statement as part of the BAF that the transgenic animals (which are not to be euthanized at the end of the research, but, rather, used in future research projects) will never leave WSU Property.

Required Changes:

- Section 2.A: Submit the abstract that is listed as "Attached."
- Section 3.4: Revise to indicate that bacteria will be double-contained in leak-proof containers when transported between facilities.
- Section 3.6: Add a statement that the cloned cattle will not be removed from WSU property.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by S. Russell and seconded by D. Diaz-Campos.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

3. *BAF Number: 900-012* *Principal Investigator: Srikumaran, Subramaniam (Sri)*
Title: Virulence Factors of Mannheimia (Pasteurella) Haemolytica
Facilities: Assigned to ORA 5/6/14 *BSM: Current*

Primary Reviewer: M. Kluzik

Secondary Reviewer: S. Russell

Discussion:

The PI is using an outdated version of the BAF. However, the information is sufficient to complete the review. In Section 2, when requested to provide an abstract, the BAF says “see attached.” However, no abstract was attached. The agents used in this research require ABSL-2 containment. Additionally, anti-biotic resistant bacteria are being created as part of the research, and this may result in the most restrictive kind of recombinant DNA work. In Section 3, the bacteria need to be listed in the opening table individually, rather than by group, and transport of bacteria must be done within double contained leak proof containers.

Required Changes:

- Section 2.A: Submit the abstract that is listed as "Attached."
- Section 2.F.2: Change the Animal containment level to ABSL-2.
- Section 2.G: Revise the ABSL of the animal housing facilities to ABSL-2. If the current facilities listed cannot support that level, new locations will need to be designated.
- Section 3: in the table at the head of the section, list each strain of bacteria separately, each on its own line.
- Section 3.1: Clarify the number of antibiotics to which the bacteria will be made resistant and if this generation of resistance will hamper the treatment of animals.
- Section 3.4: Revise to indicate that bacteria will be double-contained in leak-proof containers when transported between facilities.
- Section 4: Work with the BSO to determine if the research should not be classified with the NIH as III-A.
- Section 4: Add D-1 under III-D to the subcategories.

Defer, pending completion of the required changes. The revised BAF will be reviewed by the convened IBC. The motion was proposed by M. Kluzik and seconded by S. Russell.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

IV. BSL – 1 BAFs

A. Renewals:

1. BAF Number: 1122-003 *Principal Investigator: Brunner, Jesse*

*Title: **Ranavirus ecology***

*Facilities: **Current** BSM: **Current***

*Primary Reviewer: **M. Kluzik***

*Secondary Reviewer: **H. Pappu***

Discussion:

This research is submitted to the IBC for review of the containment procedures, as there is no recombinant work performed. There were no concerns, nor changes required.

Approve. The motion was proposed by M. Kluzik and seconded by E. Sheldon.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. BAF Number: 1124-002 *Principal Investigator: Cousins, Asaph*

*Title: **Creating the Second Green Revolution By Supercharging Photosynthesis: C4-Rice***

*Facilities: **FRs Requested 5/9** BSM: **Update requested 5/9***

*Primary Reviewer: **H. Pappu***

*Secondary Reviewer: **M. Kluzik***

Discussion:

This research newly analyses plants and seeds that are developed elsewhere. There is no recombinant work performed at WSU. The PI does have an APHIS permit.

Required Changes:

- Revise the scope of work to describe the work performed at WSU.

Defer, pending completion of the required change and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and Assigned Reviewers. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 Motion Carried (7-0)

V. Bio-Incident Reports

1. Follow-up on Rae Incident – the circumstances of the incident have not been replicated as yet, despite repeated attempts. The BSO will be in Spokane on June 3, and will continue to follow up.

VI. Adjournment

The meeting adjourned at 14:04.

WSU IBC Minutes
June 23, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	David Clark	Research Compliance
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Adi Nkwonta	Community Member; Pullman Regional Hospital
7.	Hanu Pappu	Plant Pathology
8.	Linda Thomashow	USDA/ARS; Plant Pathology
9.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Steve Russell	Office of the Campus Vet

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:22, with a quorum (9 members) present. In the absence of E. Shelden, H. Pappu agreed to serve as Interim Chair.

II. Minutes – June 2, 2014:

Approve. The motion was proposed by M. Kluzik and seconded by L. Thomashow.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

III. BSL – 2 BAFs

A. New Protocols:

1. **BAF Number: 1198-001** *Principal Investigator: Fuchs Lokensgard, Rita*

Title: Viral tracing of relapse circuitry

Facilities: Current BSM: Requested 6.10

Primary Reviewer: E. Shelden

Secondary Reviewer: D. Diaz-Campos

Discussion:

The application was not completed properly. The PI I will need to re-submit the application for review at the July meeting.

Defer, pending completion and a re-submission of the BAF. The BAF will be reviewed by the convened IBC.

The motion was proposed by M. Kluzik and seconded by D. Diaz-Campos.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

B. Renewals:

1. **BAF Number:1063-006** *Principal Investigator: Bankhead, Troy*
Title: Studies on infectivity and persistence in Lyme disease and Relapsing fever spirochetes.
Facilities: Current BSM: Current

Primary Reviewer: S. Russell

Secondary Reviewer P. Butterfield

Discussion:

There were no concerns and no changes required.

Approve. The motion was proposed by P. Butterfield and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. **BAF Number:1127-004** *Principal Investigator: Du, Min*
Title: AMP-Activated Protein Kinase in Cell Differentiation during Muscle Development Affected by Maternal Obesity
Facilities: Current BSM: Current

Primary Reviewer: S. Russell

Secondary Reviewer P. Butterfield

Discussion:

The only concern was that the PI indicated NIH category III-E for the use of recombinant DNA. This is not appropriate as the PI is performing BSL-2 work. The NIH category should be revised to III-D, subcategory D3, with both follow-up questions answered "No."

Required Changes:

- Section 4: change the NIH category indicated to III-D, with a sub-category of D3, and answer both following questions with No.

Defer, pending completion of the required change. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by P. Butterfield and seconded by M. Kluzik.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

3. **BAF Number:1126-003** *Principal Investigator: Oatley, Jon*

Title: Mechanisms of Spermatogonial Stem Cell Fate Decisions
Facilities: Inspected *BSM: Under review*

Primary Reviewer: G. Trobridge *Secondary Reviewer A. Nkwonta*

Discussion:

The only concern was that the PI indicated the use of a risk group one or two virus that infects eukaryotic cells and contains more than 2/3 of the viral genome. Information elsewhere in the BAF reveals this to be an error.

Required Changes:

- Section 4: change the indications you are using a risk group one or two virus that infects eukaryotic cells and contains more than 2/3 of the viral genome from a yes to no.

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by G. Trobridge and seconded by A. Nkwonta.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

4. *BAF Number: 900-012* *Principal Investigator: Srikumaran, Subramaniam (Sri)*

Title: Virulence Factors of Mannheimia (Pasteurella) Haemolytica

Primary Reviewer: M. Kluzik *Secondary Reviewer: S. Russell*

Discussion:

This BAF was submitted for re-review by the IBC. The PI has addressed all the required changes. Additionally, per the NIH, category III-A is not appropriate for this research, and III-D remains the appropriate category. There were no concerns, nor changes required.

Approve. The motion was proposed by M. Kluzik and seconded by D. Diaz-Campos.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

IV. BSL – 1 BAFs

A. Renewals:

1. *BAF Number: 996-003* *Principal Investigator: Roje, Sanja*

Title: Flavin Nucleotide Metabolism in Plants

Facilities: Assigned to ORA *BSM: Under Review*

Primary Reviewer: H. Pappu *Secondary Reviewer: L. Thomashow*

Discussion:

The scope of work does not provide enough detail regarding the experiments. The BAF indicates that the NIH category is III-A, the most restrictive. However, this

appears to be a mistaken assumption and the additional indication of III-E, E2 appears to be the correct one. The BAF also erroneously indicates that she is not introducing RNA or DNA into any cells other than K-12 or derivatives. The ORA will assist the researchers in completing the facility reviews. The PI has indicated that there are no changes to the Biosafety Manual.

Required Changes:

- Section 2: revise the abstract to provide more detail regarding the experiments.
- Section 4: clarify why you have indicated NIH category III-A. If possible, remove this from the BAF.
- Section 4: Change the answer to the question regarding hosts other than E. coli K-12 or derivatives from 'No' to 'Yes.'

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the Assigned Reviewers.

The motion was proposed by L. Thomashow and seconded by H. Pappu.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

2. **BAF Number: 794-008** *Principal Investigator: Gill, Kulvinder*
Title: Genome Analysis of Wheat and Other Grasses
Facilities: Current *BSM: Under review*

Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*

Discussion:

The abstract provided is too vague. Likewise, in section 4, the list of vectors and genes to be cloned also need more details.

Required Changes:

- Section 2: revise the abstract to provide more details regarding the experimental goals, procedures, equipment and containment.
- Section 4: revise the vector lists to specify the vectors.
- Section 4: revise the genes to be cloned to specify the genes.

Defer, pending completion of the required changes and approval of the BSM.

The BAF may be approved when these conditions are completed, to the satisfaction of the Assigned Reviewers.

The motion was proposed by L. Thomashow and seconded by H. Pappu.

Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

V. **Adjournment**

The meeting adjourned at 13:42.

WSU IBC Minutes
July 28, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing; Interim Chair
2.	David Clark	Research Compliance
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Adi Nkwonta	Community Member; Pullman Regional Hospital
7.	Steve Russell	Office of the Campus Vet
8.	Grant Trobridge	College of Pharmacy

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Hanu Pappu	Plant Pathology
3.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:10 with a quorum (8 members) present. In the absence of E. Shelden, P. Butterfield agreed to serve as Chair.

II. Minutes – June 23, 2014

Approve as presented. The motion was proposed by S. Russell and seconded by D. Clark.
Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

III. BSL – 2 BAFs

A. Renewals:

1. *BAF Number: 1128-003* *Principal Investigator: Aguilar-Carreno, Hector*
Title: Role of Nipah and Hendra virus F and G genes in viral entry into host cells
Facilities: Current *BSM: Current*

Primary Reviewer: E. Shelden *Secondary Reviewer: M. Kluzik*

Discussion:

The only concern was that it was not clear if the procedures would extend the host range of the virus

Required Changes:

- Section 4: If the procedures extend the host range of the virus, change the answer this question from a no to yes.

Approve, with the above change made administratively to the BAF. The motion was proposed by M. Kluzik and seconded by D. Clark.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

Note: after the meeting, the BSO contacted the PI and learned that the procedures actually diminish, rather than expand, the host range of the virus. The administrative change was abandoned and the BAF approved.

2. **BAF Number: 1129-003** *Principal Investigator: Spencer, Thomas*
Title: Genetic Regulation of Uterine and Placental Development and Function
Facilities: Current BSM: Current

Primary Reviewer: S. Russell Secondary Reviewer: D. Clark

Discussion:

There were no concerns or changes required.

Approve. The motion was proposed by S. Russell and seconded by M. Kluzik.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

3. **BAF Number: 1046-003** *Principal Investigator: Du Toit, Lindsey J*
Title: Vegetable seed pathology Research and Extension Program at the WSU Mount Vernon, NWREC
Facilities: Current BSM: Current

Primary Reviewer: L. Thomashow Secondary Reviewer: D. Clark

Discussion:

There were no concerns or changes required.

Approve. The motion was proposed by D. Clark and seconded by M. Haberman.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

IV. BSL – 1 BAFs

A. New Protocols:

1. **BAF Number: 1199-001** *Principal Investigator: Kahn, Michael*
Title: Exploring symbiotic nitrogen fixation: integrating the metabolome and proteome profiles of indeterminate Medicago nodule developmental zones
Facilities: Requested 7/22 (2nd notice) BSM: Requested 7/22 (2nd Notice)

Primary Reviewer: E. Shelden Secondary Reviewer: H. Pappu

Discussion:

The BAF does not clearly indicate whether or not the research involves transgenic plants. There were no other concerns.

Required Changes:

- Clarify if transgenic plants will be involved in the research. If so, revise the BAF to provide details on the containment of the plants and your procedures used to deactivate them. If necessary, complete and add Section 6 to the BAF. The biosafety Manual and facility reviews have not yet been submitted.

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by M. Kluzik and seconded by G. Trobridge.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

B. Renewals:

1. **BAF Number: 1069-006** *Principal Investigator: Lewis, Norman*
**Title: Product Diversification Strategies for a New Generation of Biofuels/
Bioproducts and Medicinals**
Facilities: Under Review *BSM: Under Review*

Primary Reviewer: H. Pappu *Secondary Reviewer: P. Butterfield*

Discussion:

There were no concerns or changes required of the BAF. The facility reviews and the BSM have been submitted, but not approved.

Defer, pending approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by P. Butterfield and seconded by M. Kluzik.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

C. Amendments:

1. **BAF Number: 976-009** *Principal Investigator: Eastwell, Kenneth*
**Title: Managing Plant Viruses of Perennial, Vegetatively-Propagated Plants to
Reduce their Economic Impact**
Facilities: Info requested 7/22 *BSM: Update requested 7/22*

Primary Reviewer: H. Pappu *Secondary Reviewer E. Shelden*

Discussion:

There were no concerns regarding the amended procedures. The facilities added by the amendment still need approval and the Biosafety Manual needs an update.

Defer, pending approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by D. Clark and seconded by M. Kluzik.

Total: 8 In favor: 8 Opposed: 0 **Motion Carried (8-0)**

V. **Adjournment**

The meeting was adjourned at 13:42.

WSU IBC Minutes
August 25, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	David Clark	Research Compliance
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Heston	Community Member; Pullman Fire Department
5.	Mike Kluzik	Biosafety Officer; Research Compliance
6.	Hanu Pappu	Interim Chair; Plant Pathology
7.	Steve Russell	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital
3.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 1:13 PM, with a quorum (7 members) present. In the absence of E. Shelden, H. Pappu agreed to serve as interim Chair.

II. Minutes – July 28, 2014

Approve. The motion was proposed by D. Clark and seconded by P. Butterfield.

Total: 7 In Favor: 7 Opposed: 0 **Motion Carried (7-0)**

III. BSL – 2 BAFs

A. New Protocols:

1. BAF Number: 1198-001 *Principal Investigator: Fuchs Lokensgard, Rita*

Title: Viral tracing of relapse circuitry

Facilities: Current *BSM: Current*

Primary Reviewer: E. Shelden

Secondary Reviewer: D. Diaz-Campos

Discussion: There was one concern regarding animal husbandry and whether or not open wounds would be treated with antiviral agents or if the wounds would be disinfected. The host and vector portion of Section 4 of the BAF has been left blank. The Board could not confidently determine if the research involves the creation of recombinant molecules or if the molecules were created elsewhere for use in the research.

Required Changes:

- Section 3, Item 1: Revise to include wound treatment, including any antiviral or disinfectant treatments.
- Section 4: Include the host, vector, gene or genes to be cloned and source of the DNA or rDNA, as well as the biosafety level for each of these.

Defer, pending completion of the required changes. After revision, approval may be granted by the assigned reviewers and the BSO. The motion was proposed by M. Kluzik, and seconded by D. Diaz-Campos.

Total: 7 In Favor: 7 Opposed: 0

Motion Carried (7-0)

B. Amendments:

1. *BAF Number: 730-007* *Principal Investigator: Brayton, Kelly*

Title: Genomic analysis of Anaplasma marginale

Facilities: Current *BSM: Current*

Primary Reviewer: D. Diaz-Campos

Secondary Reviewer: P. Butterfield

Discussion: The only concerns were the NIH category and the biosafety level for the source of DNA indicated on the BAF.

Required changes:

- Section 4: Change the NIH category to III-E, E-1, 'No.'
- Section 4: Change the biosafety level for your source of DNA to BSL-2.

Defer, pending completion of the required changes. After the changes are complete, approval may be granted by the BSO. The motion was proposed by M. Kluzik, and seconded by P. Butterfield.

Total: 7 In Favor: 7 Opposed: 0

Motion Carried (7-0)

IV. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number: 1200-001* *Principal Investigator: Tanaka, Kiwamu*

Title: Investigation of plant-microbe interactions and plant-insect interactions

Facilities: Current *BSM: Current*

Primary Reviewer: H. Pappu

Secondary Reviewer: L. Thomashow

Discussion: There were no concerns and no changes were required.

Approve. The motion was proposed by H. Pappu, and seconded by M. Kluzik.

Total: 7 In Favor: 7 Opposed: 0

Motion Carried (7-0)

B. Renewals:

1. *BAF Number:***1131-005** *Principal Investigator:* **Kostyukova, Alla**
Title: **Structural-functional relationship in protein-protein interactions**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **E. Shelden** *Secondary Reviewer:* **M. Kluzik**

Discussion: There were no concerns and no changes were required.

Approve. The motion was proposed by M. Kluzik, and seconded by D. Clark.

Total: 7 In Favor: 7 Opposed: 0 **Motion Carried (7-0)**

V. BAFs Approved in the Interim

A. Administrative Approvals:

1. *Protocol Number:* **1193-002** *Principal Investigator:* **Zhu, Jiyue**
Protocol Title: **Repression of hTERT gene during cell differentiation**
Primary Reviewer: **M. Kluzik**

- 8/1/14: Amendment to Transgenic animal procedures approved by BSO.

B. Other Approvals:

1. *Protocol Number:* **1105-002** *Principal Investigator:* **Gang, David**
Protocol Title: **Control of Natural Product Production in Aromatic Herbs, Spices and Biofuel Plants**
Primary Reviewer: **H. Pappu** *Secondary Reviewer:* **P. Butterfield**

- 9/23/13: Deferred pending approval of the BSM and FRs.
- 2/17/14: BSO reminded PI of Need for BSM and FRs.
- 2/28/14: Research assistant contacted BSO to initiate the processes to complete the approval.
- 3/11/14 Reminder about FR and BSM sent to PI.
- 3/14/14: Revised BSM under review. Most of the facility reviews have been received, still awaiting a few.
- 7/22/14: BSO has sent another request for FRs.
- 7/30/14: FRs, BSM and BAF approved.

2. *BAF Number:* **1069-006** *Principal Investigator:* **Lewis, Norman**
Title: **Product Diversification Strategies for a New Generation of Biofuels/ Bioproducts and Medicinals**
Facilities: **Under Review** *BSM:* **Under Review**
Primary Reviewer: **H. Pappu** *Secondary Reviewer:* **P. Butterfield**

- 7/28/14: deferred pending review and approval of the BSM and facility reviews. BSO to grant approval.
- 8/5/14: BAF approved.

C. Deactivations:

1. *BAF Number:* **1076-004** *Principal Investigator:* **Chai, Weihang**

Title: Molecular Mechanism for Telomere Maintenance in Human Cells

2. *BAF Number: 1074-010* *Principal Investigator: Call, Doug*
Title: Development of Challenge Models For Vibrio Parahaemolyticus

VI. Deferred BAFs

1. *BAF Number: 1124-002* *Principal Investigator: Cousins, Asaph*
Title: Creating the Second Green Revolution By Supercharging Photosynthesis: C4-Rice
Primary Reviewer: H. Pappu *Secondary Reviewer: M. Kluzik*

- 6/2/14: Deferred pending revision to the BAF, and approvals of the FRs and BSM.
- 6/3/14: Comments sent to PI.
- 7/7/14: FRs and BSM requested again.
- 8/25/14: Necessary information received.

2. *BAF Number: 1198-001* *Principal Investigator: Fuchs Lokensgard, Rita*
Title: Viral tracing of relapse circuitry
Facilities: Current *BSM: Requested 6.10*
Primary Reviewer: E. Shelden *Secondary Reviewer: D. Diaz-Campos*

- 6/23/14: BAF deferred pending completion and re-submission.
- 7/14/14: BSO sent reminder email to PI
- 8/12/14: Placed on agenda for re-review.

3. *BAF Number: 996-003* *Principal Investigator: Roje, Sanja*
Title: Flavin Nucleotide Metabolism in Plants
Facilities: Assigned to ORA *BSM: Under Review*
Primary Reviewer: H. Pappu *Secondary Reviewer: L. Thomashow*

- 6/23/14: BAF deferred pending clarification. Reviewers will evaluate revisions and grant approval.

4. *BAF Number: 1199-001* *Principal Investigator: Kahn, Michael*
Title: Exploring symbiotic nitrogen fixation: integrating the metabolome and proteome profiles of indeterminate Medicago nodule developmental zones
Facilities: Requested 7/22 (2nd notice) *BSM: Requested 7/22 (2nd Notice)*
Primary Reviewer: E. Shelden *Secondary Reviewer: H. Pappu*

- 7/28/14: deferred pending clarification on the use of transgenic plants (and revision to the BAF, if necessary) and submission and approval of the BSM and facility reviews. BSO to grant approval.

5. *BAF Number: 976-009* *Principal Investigator: Eastwell, Kenneth*
Title: Managing Plant Viruses of Perennial, Vegetatively-Propagated Plants to Reduce their Economic Impact
Facilities: Info requested 7/22 *BSM: Update requested 7/22*
Primary Reviewer: H. Pappu *Secondary Reviewer E. Shelden*

- 7/28/14: deferred pending submission and approval of the BSM and facility reviews. BSO to grant approval.
- 8/25/14: Information received from PI.

VII. New Business

A. Annual continuing education scheduled for September 22. The meeting will convene one hour earlier than usual. Lunch will be served.

1. There were no objections to the date, time or order from Jimmy John's.

VIII. Bio-Incident Reports

A. Devendra Shah Incident – A member of the research personnel suffered a needle stick when collecting a sample from a chick cadaver that had been challenged with recombinant salmonella. The researcher received medical treatment and a prophylactic course of antibiotics. Because the salmonella involved recombinant DNA, OBA was notified. The BSO provided counseling to reduce the likelihood of recursion. The committee had no further concern and no changes were required.

IX. Adjournment

The meeting was adjourned at 1:33 PM.

WSU IBC Minutes
September 22, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Hanu Pappu	Plant Pathology
6.	Steve Russell	Office of the Campus Vet
7.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Members Absent:

	Member	Affiliation/Role
1.	David Clark	Research Compliance
2.	Mike Heston	Community Member; Pullman Fire Department
3.	Adi Nkwonta	Community Member; Pullman Regional Hospital

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator

I. Call to Order:

The meeting was called to order at 13:14, with a quorum (7 Members) present.

II. Announcements:

- A. September has been declared “Biosafety Stewardship Month” by the NIH.
- B. D. Clark has submitted his resignation from WSU, effective October 10, 2014. M. Kluzik has been appointed interim director of the ORA.

H. Pappu moved that the IBC officially acknowledge and thank D. Clark for his service as Director of the ORA and member of the IBC. S. Russell seconded the motion.

Total: 7 In favor: 7 Opposed: 0 Motion Carried (7-0)

- C. The VP of Research is strongly considering funding a second BSO and a centralized Select Agent and Toxin Program.

III. Minutes – August 25, 2014

Approve. The motion was proposed by H. Pappu and seconded by D. Diaz-Campos.
Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

IV. BSL – 3 BAFs

A. Amendments:

1. **BAF Number: 1176-002** *Principal Investigator: Omsland, Anders*
Title: Coxiella and Chlamydia Metabolism, Physiology and ex vivo Virulence
Facilities: Current *BSM: Current*

Primary Reviewer: E. Shelden *Secondary Reviewer M. Kluzik*

Discussion:

There was a great deal of discussion regarding the use of rDNA. First, the PI has indicated NIH category III-A, which requires NIH approval (NIH has stated that they want to see WSU IBC approval before granting their own). Second, if the PI is conducting rDNA work with the wild type *C. Burnettii*, the description of genes to be cloned is not sufficient. Finally, there was no information on the antibiotics or alternative treatments for exposure. The IBC decided to contact the PI for clarification. The PI clarified (by phone) that no manipulations of the *C. Burnettii* are planned for at least a year, and all of the recombinant work performed at this time has IBC approval. The PI will submit an additional amendment when planning to initiate the manipulations of the Coxiella.

Required Changes:

- **Section 4:** Change the NIH category from III-A to III-D, D-1.
- **Section 4:** Under the Host Strain, indicate only the 9 Mile Strain, Chlamydia, and K-12 and derivatives are involved in manipulations.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the Assigned Reviewers.

The motion was proposed by E. Shelden and seconded by M. Kluzik.
Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

V. BSL – 2 BAFs

A. Renewals:

1. **BAF Number: 1070-005** *Principal Investigator: An, Wenfeng*
Title: Mechanism and Functional Consequence of Mammalian LINE-1 Retrotransposition
Facilities: Current *BSM: Current*

Primary Reviewer: E. Shelden *Secondary Reviewer D. Diaz-Campos*

Discussion:

There was some discussion about the listing of the HeLa as a human hazard. The BSO clarified that, by itself, the HeLa is not a hazard, but can become one with manipulation (as can HEK-293). This is also why the NIH category III-D, instead of III-E, is appropriate. There were no further concerns or barriers to approval.

Approve. The motion was proposed by E. Shelden and seconded by D. Diaz-Campos.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *BAF Number: 1133-003* *Principal Investigator: Davis, Margaret*
Title: Bacterial genotyping and antimicrobial resistance studies
Facilities: Current BSM: Current

Primary Reviewer: P. Butterfield *Secondary Reviewer: A. Nkwonta*

Discussion:

There were no concerns or barriers to approval.

Approve. The motion was proposed by P. Butterfield and seconded by E. Shelden.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

3. *BAF Number: 1134-003* *Principal Investigator: Mealey, Robert*
Title: Immune Control of Theileria equi
Facilities: Current BSM: Current

Primary Reviewer: S. Russell *Secondary Reviewer: M. Kluzik*

Discussion:

There is an error regarding the cells used containing helper viruses (they do not, but the BAF indicates that they do). The PI has acknowledged this is an error and agreed to changing it.

Required Changes:

- Section 4: Change the helper virus answer (under III-E, E-1) to 'No.' This change can be completed administratively.

Approve with the administrative change. The motion was proposed by M. Kluzik and seconded by S. Russell.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

VI. BSL – 1 BAFs

A. Renewals:

1. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 BSM: Requested 8.27

Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*

Discussion:

The rDNA use is not exempt, and should be changed to III-E, E-2. Additionally, the agrobacterium needs to be listed among the hosts of the rDNA.

Required Changes:

- Section 4: Change the NIH category to III-E, E-2.
- Section 4: Add agrobacterium to the list of hosts for rDNA.

Defer, pending completion of the required changes and approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by L. Thomashow and seconded by H. Pappu.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *BAF Number: 1104-002* *Principal Investigator: Chen, Shulin*
Title: Washington State Algae Alliance: Algae Biofuels Research
Facilities: Current BSM: Current

Primary Reviewer: H. Pappu *Secondary Reviewer P. Butterfield*

Discussion:

There were no concerns or barriers to approval. There is one typo ('genetic medication', rather than 'genetic manipulation') that can be administratively corrected.

Approve. The motion was proposed by H. Pappu and seconded by L. Thomashow.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

3. *BAF Number: 793-008* *Principal Investigator: Wyrick, John*
Title: Gene-specific and Genome-wide Analysis of Chromatin, Histone Modifications, and DNA repair
Facilities: Current BSM: Current

Primary Reviewer: E. Shelden *Secondary Reviewer: D. Clark*

Discussion:

The description of the vectors is vague, and it is not clear if they contain any viral material.

Required Changes:

- Section 4: Clarify the vector systems used and if they contain any viral material.
- Section 4: check E-1 if there is viral material remaining and indicate if there are helper viruses also involved, or E-2 if no viral material remains.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO and primary reviewer.

The motion was proposed by member and seconded by member.
Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

4. **BAF Number: 1056-004** *Principal Investigator: Chen, Shulin*

Title: Biofuel and Biochemical Production

Facilities: Current BSM: Current

Primary Reviewer: L. Thomashow Secondary Reviewer: M. Kluzik

Discussion:

The sub category does not appear to be correct.

Required Changes:

- Change the NIH sub category to E-1, and indicate if there are helper viruses

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO.

The motion was proposed by L. Thomashow and seconded by E. Shelden.

Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

VII. BAFs Approved in the Interim

A. Administrative Approvals:

1. **BAF Number: 923-017** *Principal Investigator: Call, Douglas*

Title: Detection and Characterization of Bacterial Isolates & Comparative Genomics

Primary Reviewer: M. Kluzik

- 9/11/14: amendment to increase volumes of diluted cultures (Note: these cultures will not be subject to high pressure) and updated BSM approved by BSO.

2. **BAF Number: 973-006** *Principal Investigator: Besser, Thomas*

Title E.coli, Salmonella sp. and Campylobacter spp: Comparative microbiology of clinical and veterinary isolates

Primary Reviewer: M. Kluzik

- 9/19/14: Amendment to add *Yersinia enterocolitica* approved by BSO.

B. Deactivations:

1. **BAF Number: 921-007** *Principal Investigator: Nilson, John*

Title: Regulation of Gonadotropin Gene Expression

VIII. Deferred BAFs

1. **BAF Number: 1124-002** *Principal Investigator: Cousins, Asaph*

Title: Creating the Second Green Revolution By Supercharging Photosynthesis: C4-Rice

Primary Reviewer: H. Pappu Secondary Reviewer: M. Kluzik

- 6/2/14: Deferred pending revision to the BAF, and approvals of the FRs and BSM.
 - 6/3/14: Comments sent to PI.
 - 7/7/14: FRs and BSM requested again.
 - 8/25/14: Necessary information received.
2. **BAF Number: 1198-001** *Principal Investigator: Fuchs Lokensgard, Rita*
Title: Viral tracing of relapse circuitry
Facilities: Current *BSM: Requested 6.10*
Primary Reviewer: E. Shelden *Secondary Reviewer: D. Diaz-Campos*
- 6/23/14: BAF deferred pending completion and re-submission.
 - 7/14/14: BSO sent reminder email to PI
 - 8/12/14: Placed on agenda for re-review.
 - 8/25/14: re-reviewed and deferred pending clarification of Wound treatment and host, vector and genes. Assigned Reviewers to assess changes and grant approval.
 - 8/27/14: Response to comments received and forwarded to reviewers.
 - 9/2/14: Approval received from secondary receiver.
 - 9/16/14: Response requested from primary reviewer.
3. **BAF Number: 996-003** *Principal Investigator: Roje, Sanja*
Title: Flavin Nucleotide Metabolism in Plants
Facilities: Assigned to ORA *BSM: Under Review*
Primary Reviewer: H. Pappu *Secondary Reviewer: L. Thomashow*
- 6/23/14: BAF deferred pending clarification. Reviewers will evaluate revisions and grant approval.
 - 9/16/14: Required changes sent to PI (re-sent, possibly).
4. **BAF Number: 1199-001** *Principal Investigator: Kahn, Michael*
Title: Exploring symbiotic nitrogen fixation: integrating the metabolome and proteome profiles of indeterminate Medicago nodule developmental zones
Facilities: Requested 7/22 (2nd notice) *BSM: Requested 7/22 (2nd Notice)*
Primary Reviewer: E. Shelden *Secondary Reviewer: H. Pappu*
- 7/28/14: deferred pending clarification on the use of transgenic plants (and revision to the BAF, if necessary) and submission and approval of the BSM and facility reviews. BSO to grant approval.
 - 9/16/14: Requests for BSM, FR (3rd notice for each)and plant clarification sent to PI
 - 9/19/14: Response to comments received.
5. **BAF Number: 976-009** *Principal Investigator: Eastwell, Kenneth*
Title: Managing Plant Viruses of Perennial, Vegetatively-Propagated Plants to Reduce their Economic Impact
Facilities: Info requested 7/22 *BSM: Update requested 7/22*

Primary Reviewer: H. Pappu

Secondary Reviewer E. Shelden

- 7/28/14: deferred pending submission and approval of the BSM and facility reviews. BSO to grant approval.
- 8/25/14: Information received from PI.

6. *BAF Number: 730-007* *Principal Investigator: Brayton, Kelly*

Title: Genomic analysis of Anaplasma marginale

Facilities: Current BSM: Current

Primary Reviewer: D. Diaz-Campos

Secondary Reviewer: P. Butterfield

- 8/25/14: deferred by IBC, pending revision to the NIH category and BSL of the source DNA. Revisions to be evaluated, and approval granted, by the BSO.

IX. Bio-Incident Reports

A. Follow up on Shah Incident. The incident report was sent to NIH. In their response, they indicated that treatment was not provided in timely manner. The victim was told by Health and Wellness to come by H&W in the morning, when they should have been advised to immediately go to the ED. They also wanted more details regarding cause analysis.

X. National Biosafety Stewardship Month

In response to the recent incidents at the CDC and NIH, they have encouraged all NIH awardees to evaluate their stewardship of biological materials. The plan at WSU is to initially raise awareness of the WSU IBC and then to ensure that all biological materials are covered under an approved BAF or properly disposed of. The BSO requested that the IBC assist in drafting memos to be sent to each department.

XI. Adjournment

The meeting was adjourned at 15:25.