

WSU IBC Minutes
October 27, 2014

IBC Members Present:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Mike Heston	Community Member; Pullman Fire Department
3.	Mike Kluzik	Biosafety Officer; Research Compliance Director
4.	Steve Russell	Office of the Campus Vet
5.	Linda Thomashow	Interim Chair; USDA/ARS; Plant Pathology

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Diaz-Campos, Dubraska	College of Veterinary Medicine
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
2.	Ryan Schwager	Research Compliance

I. Call to Order:

In the absence of E. Shelden, L. Thomashow agreed to serve as Chair. The meeting was called to order at 13:09 with a quorum (5 members) present.

II. Announcements:

M. Kluzik introduced Ryan Schwager, ORA Industrial hygienist, to the committee. It is anticipated that Ryan's role with the IBC will expand in the near future to assist in room and BSM approvals and follow up on deferrals.

III. Minutes – September 22, 2014

The only problem was that the template list of invited guests had not been corrected to omit those not present (only Patrick Conner was present from the list).

Approve with the above revision. Motion by S. Russell, with second by M. Kluzik.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

IV. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1202-001* *Principal Investigator: Fritz, Heather*
Title: Cultivation, characterization and immunopathogenesis of protozoal parasites affecting animals and humans
Facilities: Under review *BSM: Requested 10.15*

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

Discussion:

The description of the procedures is very broad, but this is not a concern. There was some concern that *Hammondia hammondi* was listed as a BSL-2 agent (Section 3), but that it was not a human, animal or plant hazard (IBC Coordinator followed up on this after the meeting; the agent is not a hazard, as the BAF claims and probably only needs BSL-1 treatment, but the PI is likely following BSL-2 procedures consistently). No changes were required.

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 S. Russell and seconded by M. Heston.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

2. *BAF Number: 1204-001* *Principal Investigator: Zambriski, Jennifer*
Title: Pharmacokinetics, Efficacy, and Synergism of Nitazoxanide and Azithromycin in the Treatment of Cryptosporidiosis
Facilities: Under BSO review *BSM: Under BSO review*

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

Discussion:

There were no concerns regarding the BAF and no changes required.

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 member and seconded by member.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

B. Renewals:

1. *BAF Number: 1079-003* *Principal Investigator: Watts, Jennifer*
Title: Molecular Genetics of Lipid Synthesis in C. elegans
Facilities: Current *BSM: Requested 10.15*

Primary Reviewer: P. Butterfield

Secondary Reviewer: M. Kluzik

Discussion:

The updated Plan of Work does not clearly describe the rDNA work performed or who will be performing it. It is also unclear why this is classified as BSL-2, since the Host, Vector, Genes to be Cloned and Source of DNA/RNA in Section 4 are all listed as BSL-1

Required Changes:

- Revise the Plan of work to describe the rDNA work being performed as part of the research, and who will be performing it.

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 M. Kluzik and seconded by P. Butterfield.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

V. BSL – 1 BAFs

A. New Protocols:

1. BAF Number: 1201-001 *Principal Investigator: Glawe, Dean*

Title: Host specificity of powdery mildew

Facilities: Requested 10.15 *BSM: Requested 10.15*

Primary Reviewer: L. Thomashow

Secondary Reviewer: H. Pappu

Discussion:

This BAF may not be necessary, if the only work performed is Microscopy. There is a great deal of missing information on the BAF.

Required Changes:

- Section 2.G: List the specific rooms that you will occupy.
- Section 3, Item 4: describe the procedures that will be employed to maintain containment when transporting the biologicals between facilities.
- Section 4: Select the NIH category and appropriate sub-category (if applicable) and Complete the Host/Vector Section.

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 L. Thomashow and seconded by M. Kluzik.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

B. Renewals:

1. *BAF Number: 915-005* *Principal Investigator: Chen, Weidong*
Title: Genetic Transformation of Fungal Pathogens of Cool Season Grain Legumes
Facilities: Update req 10.15.2014 *BSM: Update req 10.15.2014*

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

Discussion:

In Section 4, the III-E sub-category E-2 was not checked, although the corresponding questions were answered. This can be updated administratively.

Required Changes:

- Section 4: Select the NIH sub-category E-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 L. Thomashow and seconded by M. Kluzik.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

2. *BAF Number: 918-005* *Principal Investigator: Vonwettstein, Dietrich*
Title: Engineering Wheat for Improved Dietary Health (Immature Microspore Transformation)
Facilities: Under Review *BSM: Under Review*

Primary Reviewer: L. Thomashow *Secondary Reviewer: E. Shelden*

Discussion:

There was initially a concern that Section 3 was not completed. However, upon follow-up, the research does not involve infectious agents and Section 3 need not be present at all.

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 L. Thomashow and seconded by P. Butterfield.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

VI. **Adjournment**

The meeting adjourned at 13:45.

WSU IBC Minutes
December 15, 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

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 present (9/9 voting members). P. Butterfield attended via video conference and H. Pappu attended on phone.

II. Announcements:

M. Kluzik informed the committee that the In-Vessel Composter could not maintain sufficient internal temperature for the required 72 hours necessary for it to be utilized as a means of biological deactivation. The university will explore other means of 'green' decontamination, such as an alkaline digester.

III. Minutes – October 27, 2014

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

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

Due to time constraints, H. Pappu's availability is limited. The agenda was re-arranged to accommodate his need to leave by 14:30.

IV. BSL – 1 BAFs

A. New Protocols:

1. **BAF Number: 1203-001** *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*

Primary Reviewer: **L. Thomashow**

Secondary Reviewer: **H. Pappu**

Discussion: The BAF submitted was incomplete. The personnel list does not include their training and experience and the abstract (the BAF was submitted on an older version) is missing.

Required Changes:

- Section 1, Personnel: Revise to include all personnel (including Andrii) and their respective training/experience levels with the procedures performed.
- Section 2A: Submit an abstract that describes your activities with respect to biological agents.

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 L. Thomashow and seconded by E. Shelden.

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

B. Renewals:

1. *BAF Number: 655-007* *Principal Investigator: Poovaiah, B.W.*

Title: Calcium/Calmodulin-mediated Signal Network in Plants

Facilities: requested 11.7 *BSM: requested 11.7*

Primary Reviewer: **H. Pappu**

Secondary Reviewer: **L. Thomashow**

Discussion:

In Section 4, listing the vector as “plasmid” and the source of DNA to be cloned as “plants” does not provide enough detail. There were no other concerns.

Required Changes:

- Section 4: Specify the vector and source of DNA to be cloned.

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 L. Thomashow and seconded by H. Pappu.

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

2. *BAF Number: 205-011* *Principal Investigator: Browse, John*

Title: Molecular Genetics of Lipid Synthesis in Plants

Facilities: Under Review 12.11.14 *BSM: Under Review 12.11.14*

Primary Reviewer: **H. Pappu**

Secondary Reviewer: **E. Shelden**

Discussion:

In Section 3, the method of containment during transport is plastic wrap. The IBC required a second means of containment. There were no other concerns.

Required Changes:

- Section 3: Identify a secondary means of containment for transport of biological materials between facilities.

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 / Assigned Reviewers. The motion was proposed by E. Shelden and seconded by L. Thomashow.

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

3. *BAF Number: 1137-002* *Principal Investigator: Chen, Xianming*
Title: Virus Induced Gene Silencing (VIGS) o High-Temperature Adult Plant (HTAP)-Associated Wheat Transcripts
Facilities: Unknown BSM: Needs update

Primary Reviewer: H. Pappu

Secondary Reviewer: L. Thomashow

Discussion:

There were no concerns with the BAF

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 L. Thomashow and seconded by H. Pappu.

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

V. **BSL-2 Protocols:**

A. **New Protocols:**

1. *BAF Number: 1205-001* *Principal Investigator: Roberts, Steven*

Title: Environmentally-modulated cytosine deamination in genome instability and cancer

Facilities: Assigned to ORA 11.6 BSM: Under Review 12.11.14

Primary Reviewer: E. Shelden

Secondary Reviewer: M. Kluzik

Discussion:

Section 5 of the BAF does not make it clear if the research utilizes characterized or primary human cells. There were no other concerns.

Required Changes:

- Section 5: Clearly indicate whether you will be using characterized or primary human cells in the research.

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 E. Shelden.

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

2. *BAF Number: 1206-001* *Principal Investigator: Zhang, Hui H*
Title: Effects of Alcohol consumption on NK cells and anti-CMV immune response
Facilities: Unknown *BSM: Not Submitted*

Primary Reviewer: D. Diaz-Campos *Secondary Reviewer: P. Butterfield*

Discussion:

The major concern was that the procedures for transporting inoculated animals between facilities did not address how contaminated cages from being brought into the Vivarium. The BSO informed the IBC that, in the past, he had assisted another researcher to develop a SOP for a very similar situation and would be willing to adapt the SOP to address the needs of this protocol. There were no other concerns.

Required Changes:

- Work with the BSO to develop a SOP for the transporting of inoculate animals that will prevent contaminated cages from being brought into the Vivarium. The SOP will be appended to the BSM.

Defer, pending approval of the facilities and BSM with SOP. 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: 9 In favor: 9 Opposed: 0 Motion Carried (9-0)

B. **Renewals:**

1. *BAF Number: 923-018* *Principal Investigator: Call, Douglas*
Title: Detection and Characterization of Bacterial Isolates & Comparative Genomics
Facilities: Current (08/2012) *BSM: Submitted 11.25 (maybe)*

Primary Reviewer: S. Russell *Secondary Reviewer: A. Nkwonta*

Discussion:

In Section 4, the BAF indicates that the NIH category for the use of rDNA is III-A, which requires approval by the NIH Director, RAC (Recombinant DNA Advisory Committee), in addition to an IBC. This is also potentially a typo, and may be able to be removed. The BSM has been approved.

Required Changes:

- Clarify the appropriate NIH category(ies).

Defer, pending the Clarification SM. The BAF may be approved by the BSO if the III-A indication was in error. If not, the BAF will need to be revised heavily and the revised BAF will be reviewed by the convened IBC.

The motion was proposed by S. Russell and seconded by A. Nkwonta.

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

2. **BAF Number: 806-012** *Principal Investigator: White, Stephen*
Title Genetics of susceptibility to ovine pneumonia & epididymitis
Facilities: Unknown BSM: Needs update

Primary Reviewer: D. Diaz-Campos

Secondary Reviewer: M. Kluzik

Discussion:

In Section 2, the description of the Scope of Work does not include a discussion of the Bursella acquisition. There were no other controverted issues.

Required Changes:

- Section 2: Revise your description of the work to clarify the Bursella acquisition.

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 D. Diaz-Campos.

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

C. **Amendments:**

1. **BAF Number: 1197-002** *Principal Investigator: Li, Weimin*
Title: Nuclear signaling regulation of cell growth and tumorigenesis
Facilities: Current (5.30.14) BSM: Current (with SOP)

Primary Reviewer: P. Butterfield

Secondary Reviewer: E. Shelden

During the discussion, M. Heston left the meeting (13:54). Quorum was maintained (8/9 voting members).

Discussion:

The IBC amendment form does not collect sufficient information to perform an adequate review. The changes must be well-described, and incorporated into the current BAF for review.

Required Changes:

- Update the BAF that covers this research to incorporate your changes, using highlighting or font changes to demarcate the revisions.

Defer, pending completion of the required changes. The revised BAF will be reviewed by the convened IBC. The motion was proposed by P. Butterfield and seconded by E. Shelden.

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

2. **BAF Number: 1194-002** *Principal Investigator: Wang, Zhenjia*
Title: Nanoparticle Drug Delivery
Facilities: Current BSM: Current

Primary Reviewer: P. Butterfield

Secondary Reviewer: M. Kluzik

Discussion:

There was information in the BAF that was missing, controverted, or vague. The BAF is not approvable with these problems (specifics will be listed in the required changes).

Required Changes:

- Section 2, Table G: Specify the BSL for your facilities.
- Section 3, Item 3: Remove the claim that the bacteria are not an airborne hazard.
- Section 3, Item 5: Remove antibiotics from your list of terminal deactivation methods.
- Section 3, Item 6: Specify the methods of dead mouse disposal.
- Section 5, Item 5. Pseudomonas aeruginosa and E. coli are not human or primate related. Please identify the appropriate cell lines, blood or tissue being used in the research.

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 P. Butterfield.

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

VI. BSL – 1 BAFs

A. Renewals:

1. BAF Number: 533-011 Principal Investigator: Kim, Kwanhee

Title: Retinoid Signaling and Phthalate Effects on the Testis

Facilities: Assigned to ORA 11.7 BSM: Received 11.12

Primary Reviewer: **E. Shelden**

Secondary Reviewer: **S. Russell**

Discussion:

The BAF is missing some information and is not clear regarding the stem cell transplantation. There was also a question if the COS7 cells required BSL-2 containment

Required Changes:

- Section 2: In your Plan of Work, provide more details on the stem cell transplantation into the mice. Include the source of the stem cells, how and when they are transplanted.
- Section 2: check 'yes' to the use of human/primate materials.
- Section 4: check 'yes' that you are inserting foreign DNA into a cell, other than K-12 or derivative.
- Section 4: Verify with the source of the COS7 cells that they are actually BSL-1. If not, contact the BSO as soon as possible to assist with resubmission at the appropriate biosafety level.
- As you are using primate cells, complete Section 5 of the BAF

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. If the COS7 cells require greater than BSL-1 containment, the BAF must be reviewed by the full IBC.

The motion was proposed by E. Sheldon and seconded by S. Russell.

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

2. *BAF Number: 1136-002* *Principal Investigator: Evans, Raymond*
Title: Stable Isotope Core Laboratory
Facilities: Inspected 11.25 BSM: Current

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

Discussion:

The IBC was not sure if the research fell under the purview of the IBC, as the agent does not appear to be pathogenic to humans, animals or plants.

Required Changes:

- Verify that the agent listed in Section 3 is not a hazard to plants, animals or humans.

Defer, pending clarification. If the agent is not a hazard, the BAF may be withdrawn, as IBC oversight is not necessary. If a hazard, the BAF may be approved by BSO and Assigned Reviewers . The motion was proposed by member and seconded by member.

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

VII. BAFs Approved in the Interim

A. Administrative Approvals:

1. *BAF Number: 1181-002* *Principal Investigator: Resat, Haluk*
Title: Receptor Signaling Pathways in Mammary Epithelial Cells
Primary Reviewer: M. Kluzik
 - 11/20/14: Amendment administratively approved by BSO.
2. *BAF Number: 1200-002* *Principal Investigator: Tanaka, Kiwamu*
Title: Investigation of plant-microbe interactions and plant-insect interactions
Primary Reviewer: P. Conner
 - 11/21/14: Personnel amendment received
 - 11/24/14: Amendment administratively approved by coordinator.
3. *BAF Number: 923-019* *Principal Investigator: Call, Douglas*
Title: Detection and Characterization of Bacterial Isolates & Comparative Genomics
Primary Reviewer: M. Kluzik

- 12/12/2014: Facilities amendment approved by BSO.

B. Other Approvals:

1. **BAF Number: 1202-001** *Principal Investigator: Fritz, Heather*
Title: Cultivation, characterization and immunopathogenesis of protozoal parasites affecting animals and humans
Primary Reviewer: S. Russell *Secondary Reviewer: E. Shelden*
 - 10/27/14: deferred by IBC, pending approval of the facilities and Biosafety Manual.
 - 11/7/14: Biosafety Manual received from PI.
 - 11/13/14: BSM, facilities and BAF approved by BSO.

Facilities: Under BSO review *BSM: Under BSO review*
Primary Reviewer: S. Russell *Secondary Reviewer: M. Kluzik*

- 10/27/14: deferred by IBC, pending approval of the facilities and Biosafety Manual.
- 11/13/14: BSM, facilities and BAF approved by BSO.

2. **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*

- 9/22/14: Deferred by IBC, pending revision. Revisions to be evaluated by Primary reviewer and BSO.
- 9/23/14: response to comments received.
- 9/24/14: Primary reviewer approved of BAF with response.
- 12/12/14: BAF approved.

C. Deactivations:

1. **BAF Number: 1138-002** *Principal Investigator: Chen, Xianming*
Title: Characterization of an PDR-type ABC Transporter Using a Brachypodium Distachion T-Insertion Mutant
2. **BAF Number: 1135-002** *Principal Investigator: Czaja, Krzysztof*
Title: Injury-induced plasticity in the sensory pathways

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.

7. *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

- 9/22/14: Deferred by IBC, pending revision. Revisions will be evaluated by the assigned reviewers.
- 9/24/14: Revisions received and forwarded to reviewers.

8. *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

- 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
- 9/23/14: response to comments received and sent to BSO.

9. *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

- 9/22/14: Deferred by IBC pending revision. Revisions to be evaluated by BSO.
- 9/24/14: Response to comments received and forwarded to BSO.

10. *BAF Number: 1079-003 Principal Investigator: Watts, Jennifer*

Title: Molecular Genetics of Lipid Synthesis in C. elegans

Facilities: Current BSM: Requested 10.15

Primary Reviewer: P. Butterfield

Secondary Reviewer: M. Kluzik

- 10/27/14: deferred by IBC, pending revision to the Plan of Work, describing the recombinant work and who will be performing the work, and approval of the biosafety manual.

11. *BAF Number: 1201-001 Principal Investigator: Glawe, Dean*

Title: Host specificity of powdery mildew

Facilities: Requested 10.15 BSM: Requested 10.15

Primary Reviewer: L. Thomashow

Secondary Reviewer: H. Pappu

- 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.

12. *BAF Number: 915-005 Principal Investigator: Chen, Weidong*

Title: Genetic Transformation of Fungal Pathogens of Cool Season Grain Legumes
Facilities: Update req 10.15.2014 BSM: Update req 10.15.2014
Primary Reviewer: L. Thomashow Secondary Reviewer: H. Pappu

- 10/27/14: deferred by IBC, pending administrative revision to the BAF (Section 4, select “E-2), and approval of the facilities and biosafety manual.

13. BAF Number: 918-005 Principal Investigator: Vonwettstein, Dietrich

Title: Engineering Wheat for Improved Dietary Health (Immature Microspore Transformation)
Facilities: Under Review BSM: Under Review
Primary Reviewer: L. Thomashow Secondary Reviewer: E. Shelden

- 10/27/14: deferred by IBC, pending approval of the facilities and Biosafety Manual.

IX. Adjournment

The meeting adjourned at 14:19.

WSU IBC Minutes
January 26, 2015

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Phillip Butterfield	College of Nursing, attended via teleconference
3.	Mike Heston	Community Member; Pullman Fire Department
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.	Diaz-Campos, Dubraska	College of Veterinary Medicine
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital

IBC 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 13:15, with a quorum (6 members) present. L. Thomashow arrived at 13:16, bringing the number of members to 7.

II. Announcements:

M. Kluzik has been selected to be appointed as Director of the Office of Research Assurances. The members offered congratulations.

III. Minutes – December 15, 2014:

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

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

IV. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1208-001 Principal Investigator: Jones, Jonathan*
Title: Keratinocyte Migration and Wound Healing
Facilities: Current BSM: Requested 1/9/15

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

Discussion:

In Section 3, the BAF indicates that the research collects data from looking at rat wounds, but Section 2 does not indicate that vertebrate animals will be used or how they will be housed. Additionally, the NIH category (III-D/D4) reinforces that vertebrate animals are involved in the research. According to the BAF, there is no exposure control plan in place and no system to train laboratory personnel regarding blood borne pathogens.

Clarification:

- Clarify if the research involves vertebrate animals. If not, revise the BAF to remove this confusion.

Required Changes (if animals are involved):

- Section 2B: change to ‘yes’ and indicate the ASAF number that covers their care and use.
- Section 2G: Add the animal housing facilities to the table.
- Section 5, Item 7a-c: check ‘yes’ to these questions.

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 P. Butterfield and seconded by M. Kluzik.

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

B. Renewals:

1. BAF Number: 814-013 Principal Investigator: Call, Douglas

Title: Gene Knockouts and Recombinant Proteins

Facilities: Current BSM: Update requested 1/6

Primary Reviewer: E. Shelden

Second Reviewer: S. Russell

Discussion:

The BAF is a “blanket protocol,” that covers a great deal of research work done by Dr. Call. However, there are many questions that are unanswered or are answered too vaguely for approval. Additionally, in Section 4, NIH category III-A is indicated. This is most likely a typo, as it is the most restrictive category of recombinant DNA use.

Required Changes:

- Section 2G: Specify the animal housing facilities.
- Section 3.6: specify the means by which inoculated animals will be disposed of.
- Section 4: Verify that you intended to check NIH category III-A. If not, unchecked this box.

- Section 4: Regarding III-D, D-6, provide a list of the experiments that will involve cultures of greater than 10 liters. You may submit this as a separate document.
- Section 4: Specify the 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 Assigned Reviewers.

The motion was proposed by S. Russell and seconded by E. Shelden.

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

2. *BAF Number: 1139-005* *Principal Investigator: Pru, James*
Title: Mechanisms of Maternal-Embryonic Signaling and Uterine Physiology
Facilities: Assigned to ORA 1/13 *BSM: Update requested 1/13*

Primary Reviewer: **D. Diaz-Campos** Second Reviewer: **E. Shelden**

Discussion:

There is no discussion of how vertebrate animals will be involved in the research. The plan of work mentions the use of recombinant DNA but Section 4 was not completed.

Required Changes:

- Section 2A: include a description of how the mice will be used in this research.
- Complete and submit Section 4.

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 E. Shelden and seconded by M. Kluzik.

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

C. Amendments:

1. *BAF Number: 1197-002* *Principal Investigator: Li, Weimin*
Title: Nuclear signaling regulation of cell growth and tumorigenesis
Facilities: Current *BSM: Current*

Primary Reviewer: **P. Butterfield** Secondary Reviewer: **E. Shelden**

Discussion:

In December, the IBC required that the amendment be incorporated into the existing BAF. This requirement was not met.

Update: the PI had responded to the required changes, but the revised BAF was overlooked due to coordinator error.

Required Changes:

- Update the BAF that covers this research to incorporate your changes, using highlighting or font changes to demarcate the revisions.

Defer, pending completion of the required changes. The revised BAF will be reviewed by the convened IBC. The motion was proposed by P. Butterfield and seconded by E. Shelden.

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

V. BSL – 1 BAFs

A. New Protocols:

- 1. BAF Number: 1207-001 Principal Investigator: Mealey, Robert**

Title: Etiology of viral hepatitis in horses

Facilities: Current BSM: Under review

Primary Reviewer: S. Russell

Secondary Reviewer: H. Pappu

Discussion:

There were no concerns nor controverted issues.

Approve. The motion was proposed by S. Russell and seconded by H. Pappu.

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

- 2. BAF Number: 1209-001 Principal Investigator: Sorg, Barbara**

Title: DREADDs and Addiction

Facilities: Requested 12.19 (MK) BSM: Requested 12.19 (MK)

Primary Reviewer: E. Shelden

Secondary Reviewer: L. Thomashow

Discussion:

The researchers will be injecting animals with adenoviral vectors. Despite the fact that these factors are incompetent with regards to reproduction, they are infectious agents. Section 3 was not included in the BAF.

Required Changes:

- Section 2H: check Yes regarding infectious agents.
- Complete and submit Section 3.

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 E. Shelden and seconded by L. Thomashow.

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

- 3. BAF Number: 1210-001 Principal Investigator: Morgan, Michael**

Title: Function of specific classes of periaqueductal gray neurons

Facilities: Requested 1/12 BSM: Requested 1/12

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

Discussion:

The animal housing facilities were not specified. The researchers will be injecting animals with adenoviral vectors. Despite the fact that these factors are incompetent with regards to reproduction, they are infectious agents. Section 3 was not included in the BAF.

Required Changes:

- Section 2G: specify the animal housing facilities.
- Section 2H: check Yes regarding infectious agents.
- Complete and submit Section 3.

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 E. Shelden.

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

4. BAF Number: 1211-001 Principal Investigator: Vogel, Kara

Title: Zebrafish research

Facilities: Expired BSM: None

Primary Reviewer: M. Kluzik

Secondary Reviewer: E. Shelden

Discussion:

This research does not use viral vectors, and the changes to the animals are basically be of mutation. There is, however, a great deal of missing information in the BAF.

Required Changes:

- Supply the missing information and the BAF (Section 2A, in particular) and resubmit.

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 M. Kluzik and seconded by E. Shelden.

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

B. Renewals:

1. BAF Number: 1141-002 Principal Investigator: Coffin, Allison

Title: Hair cell death and protection in the zebrafish lateral line

Facilities: Requested 1/13 BSM: Requested 1/13

Primary Reviewer: M. Kluzik

Secondary Reviewer: E. Shelden

Discussion:

According to the BAF, the research involves known oncogenes. There is no information in the BAF on which these are and how they are dealt with. This is possibly an error, as many of the genes listed appear to be tumor suppressing. It's the research does involve oncogenes, then BSL-2 containment is most likely necessary.

Required Changes:

- Clarify if the research does involve oncogenes. If not, remove the indication that it does. If so, the BSO will assist the researchers to resubmit 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. If the research does involve oncogenes, however, the revised BAF will be reviewed by the convened IBC.

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

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

VI. Adjournment

The meeting was adjourned at 14:17.

WSU IBC Minutes
February 23, 2015

IBC Members Present:

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

IBC Members Absent:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	College of Veterinary Medicine
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
2.	Ryan Schwager	Research Compliance

I. Call to Order:

The meeting was called to order at 13:10 with a quorum (5 members) present.

II. Minutes – January 26, 2015

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

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

III. BSL – 2 BAFs

A. Renewals:

1. **BAF Number: 1143-003** *Principal Investigator: Killinger, Karen*
Title: Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain
Facilities: Requested 2/17 *BSM: Requested 2/17*
Primary Reviewer: S. Russell *Secondary Reviewer D. Diaz-Campos*

Discussion:

The major concerns were with the mention of analyzing drug resistance, but the procedures to do so were not described, and if the research involved only culturing and inoculating with the agents listed in section three, or if it would include all aerobic bacteria.

Required Changes:

- **Section 2A:** Include a description of how you will be “[a]ssessing levels of antimicrobial drug resistance.”
- **Section 2A:** Specify if the 4 “pathogens of interest” listed (as well as appearing in Section 3) are the only agents that will be cultured and used in inoculation.

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 S. Russell and seconded by M. Kluzik.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

B. Amendments:

1. **BAF Number: 1197-002** *Principal Investigator: Li, Weimin*
Title: Nuclear signaling regulation of cell growth and tumorigenesis
Facilities: Current **BSM: Current**
Primary Reviewer: P. Butterfield **Secondary Reviewer: E. Shelden**

Discussion:

There were no concerns or changes required.

Approve. The motion was proposed by P. Butterfield and seconded by E. Shelden.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

IV. **BSL – 1 BAFs**

A. New Protocols:

1. **BAF Number: 1212-001** *Principal Investigator: Sanguinet, Karen*
Title: Investigation root development and architecture in Brachypodium distachyon and wheat
Facilities: Requested 2/17 **BSM: Requested 2/17**
Primary Reviewer: H. Pappu **Secondary Reviewer: L. Thomashow**

Discussion:

There were no concerns with the BAF, or changes required.

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 M. Kluzik and seconded by S. Russell.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

2. **BAF Number: 1214-001** *Principal Investigator: Davis, Christopher*
Title: Optogenetic intracranial self-stimulation
Facilities: Requested 2/17 **BSM: Requested 2/17**

Primary Reviewer: E. Shelden **Secondary Reviewer: L. Thomashow**

Discussion:

The IBC does not have oversight over the transgenic rats, as the researcher is not creating or breeding, merely receiving the animals. Although the AAV is not a hazard, it still needs to be considered an infectious agent. The PI had not submitted the BAF with Section 3. The BSO has sent a proposal of this section for the PI to approve or edit.

Required Changes:

- **Section 2H:** Check ‘Yes’ with regards to Infectious Agents.
- **Section 3:** Complete and Submit.

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 E. Shelden and seconded by L. Thomashow.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

B. Renewals:

1. **BAF Number: 589-007** *Principal Investigator: Murray, Timothy*
Title: Controlling Diseases of Wheat: Eyespot, Caphalosporium Stripe, Speckled Snow Mold and Wheat Streak Mosaic
Facilities: Requested 2.17 **BSM: Under review**
Primary Reviewer: L. Thomashow *Secondary Reviewer A. Nkwonta*

Discussion:

The major concern was the potential for the introduction of non-native species when field planting.

Required Changes:

- Clarify the field experiments and which, if any, non-native species of infectious agents will be present.
- Submit any necessary permits for these agents.

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 M. Kluzik.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

2. **BAF Number: 795-007** *Principal Investigator: Okubara, Patricia*
Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic
Facilities: Under review **BSM: Under review**
Primary Reviewer: H. Pappu *Secondary Reviewer: A. Nkwonta*

As neither of the assigned reviewers were present, the review of this BAF was **Tabled** until the March IBC meeting.

V. Deferred BAFs

Due to the large number of deferred BAFs, the ORA staff that support the IBC will meet three times a week in order to resolve the barriers to approval.

VI. Bio-Incident Reports

1. Listeria Incident on 2/10/2015 – A test tube broke while being opened and cut the researcher through the glove. The researcher was taken to Pullman Regional Hospital and the BSO provided the Canadian version of the MSDS for Listeria to facilitate treatment. Sheets such as this will be included in future versions of the BSM

VII. Adjournment

The meeting adjourned at 14:01.

WSU IBC Minutes
March 30, 2015

IBC Members Present:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	Interim Chair; College of Veterinary Medicine
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.	Steve Russell	Office of the Campus Vet

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

I. Call to Order:

- The meeting was called to order at 13:16, with a quorum (6 of 9) voting members present. In the absence of Eric S., Dubraska D. agreed to serve as Chair. Phil B. attended via PolyCom from WSU Spokane. The other attendees attended in the Pullman location.

II. Announcements:

- The ORA has received a request for IBC minutes, incident reports and general information from USA Today.

III. Minutes – February 23, 2015

IV. BSL – 2 BAFs

A. New Protocols:

- 1. BAF Number:1215-001** *Principal Investigator: Goodman, Alan*
Title: Conserved Immune Response to Sensing Cytosolic DNA
Facilities: Current *BSM: Under review*
Primary Reviewer: Phil B. *Secondary Reviewer Eric S.*

Discussion:

The Scope of Work contains one more vector than is listed in Section 4. The Blood-borne pathogen questions in Section 5 were not answered. Mike K. clarified that the BSM contains the BBP exposure control plan, but has not yet been approved, due to concern over arthropod containment. Additionally, the BAF does not describe disposal of the flies after euthanasia.

Required Changes:

- Section 2: clarify the location where microscopy occurs, and the biosafety level.
- Section 4: Add the vector that is in the plan of work to the final table in the section.
- Section 5: Answer question 7 (a-c). This can be done administratively when the BSM/BBP ECP is approved.
- Section 7: Clarify the means of disposal of the flies after euthanasia. If they are discarded, the IBC recommended incineration.

Defer, pending completion of the required changes and approval of BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Phil B. and seconded by Mike K..

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

B. Renewals:

1. *BAF Number:* **1080-004** *Principal Investigator:* **Hunzicker-Dunn, Mary**
Title: **FSH - Stimulated Signals that Regulate Follicular Maturation**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Dubraska D.** *Secondary Reviewer:* **Mike K.**

Discussion:

The only problem was that the adenovirus was listed twice in Section 3.

Required Changes:

- Section 3: Remove the redundant listing of the adenovirus. With the PI's OK, this can be done administratively.

Defer, pending completion of the required change and approval of the facilities.

The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Mike K. and seconded by Phil B.

[Coordinator's note: the facilities were approved 3/23, but the Agenda was not updated]

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

V. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number:* **1216-001** *Principal Investigator:* **Tang, Juming**
Title: **Thermal inactivation characteristics of non-pathogenic surrogate organisms**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Steve R.** *Secondary Reviewer:* **Linda T.**

Discussion:

There were no concerns regarding approval, nor changes required.

Approve. The motion was proposed by Steve R. and seconded by Mike K.

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

2. *BAF Number: 1217-001* *Principal Investigator: Miller, Lindsey*
Title: Epigenetic regulation of hyperglycemia-induced cardiac inflammation in cultured cells
Facilities: Current *BSM: Current*
Primary Reviewer: Phil B. *Secondary Reviewer: Adi N.*

Discussion:

There was concern over the table at the end of section 4 (all rows were marked 'N/A'). The IBC did not see this as possible if there is any recombinant work going on. This may be the case, if the PI is only silencing genetic expression of the cells.

Required Changes:

- Clarify if the research involves only silencing genetic expression.

Defer, pending clarification. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO if the work only silences genes. If not, approval is deferred to the Assigned Reviewers. The motion was proposed by Mike K. and seconded by Phil B.

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

B. Renewals:

1. *BAF Number: 795-007* *Principal Investigator: Okubara, Patricia*
Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic
Facilities: Under review *BSM: Under review*
Primary Reviewer: Linda T. *Secondary Reviewer: Hanu P.*

Discussion:

There were no concerns, but, in the absence of the assigned reviewers, the IBC was reluctant to grant full approval without consulting them.

Defer, pending approval of the facilities and BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO, unless the Assigned Reviewers have concerns or require changes. The motion was proposed by Mike K. and seconded by Steve R.

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

2. *BAF Number: 800-007* *Principal Investigator: Gloss, Lisa*

Title: Histone and nucleosome stability and dynamics.

Facilities: Current *BSM: Current*

Primary Reviewer: Eric S. *Secondary Reviewer: Mike K.*

Discussion:

There were no concerns, but, as the research is BSL-1, the NIH category III-E (E-1, 'no') is sufficient, rather than III-D, as currently indicated. Additionally, in the absence of the primary reviewer, the IBC was reluctant to grant full approval without consulting him.

Defer, pending revision to the BAF. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO, unless the Primary Reviewer has concerns or requires changes. The motion was proposed by Mike K. and seconded by Steve R.

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

VI. Old Business

The ORA staff has been diligently working on resolving the deferred list.

VII. Adjournment

The meeting adjourned at 14:04.

WSU IBC Minutes
April 27, 2015

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.	Adi Nkwonta	Community Member; Pullman Regional Hospital
6.	Hanu Pappu	Plant Pathology
7.	Steve Russell	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Mike Heston	Community Member; Pullman Fire Department
2.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

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

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:09, with a quorum (6 of 9 members) present. All members and guest were at the Pullman location, except for Phil B., who attended via teleconference from WSU-Spokane.

II. Minutes – March 30, 2015

Approve. The motion was proposed by Hanu P. and seconded by Mike K.

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

III. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1221-001* *Principal Investigator: Chai, Weihang*
Title: Molecular Mechanism for Telomere Maintenance in Human Cells
Facilities: Current *BSM: Current*

Primary Reviewer: Eric S. *Secondary Reviewer: Mike K.*

Discussion:

This research is BSL-2 because of the use of human cancer cells, including HeLa. The concerns regarding the BAF were in Section 4. Only the names, not the nature of

the genes inserted were listed. Additionally, the ninth question about the rDNA should be marked 'yes,' as the host is not *E. coli* K-12 or a derivative.

Required Changes:

- Section 4: change your response to the final yes/no question on page 6 to "yes."
- Section 4: in the next part of the section, revise your response to question 2 to describe the nature of the DNA sequences (example: are any DNA repair proteins?), in addition to the names.

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 Eric S. and seconded by Mike K.

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

Dubraska C. Arrived at the meeting (Pullman location) at 13:15, bringing the number of members attending to 7.

IV. BSL – 1 BAFs

A. New Protocols:

1. **BAF Number: 1218-001** *Principal Investigator: Frank, Marcos*
Title: Mouse transgenics sleep and plasticity
Facilities: Under review BSM: Current

Primary Reviewer: Steve R. *Secondary Reviewer: Eric S.*

Discussion:

There was some discussion about the potential for needle sticks when performing injections (or, more likely, re-capping used needles). This is, however, intrinsic to all research involving injections and is more related to training and proper sharps handling/disposal than to the BAF. There were no concerns with the BAF, nor changes required.

Approve. The motion was proposed by Steve R. and seconded by Eric S..

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

2. **BAF Number: 1219-001** *Principal Investigator: Tang, Juming*
Title: Enhancing Low-Moisture Food Safety by Improving Development and Implementation of Pasteurization Techniques
Facilities: Requested 4/17 BSM: requested 4/17

Primary Reviewer: Phil B. *Secondary Reviewer: Dubraska C.*

Discussion:

There was a great deal of discussion regarding the agent described in Section 3, *Enterococcus Faecium*. It is used in U.S. food processing plants to test the efficacy of their pasteurization methods. However, it is also treated as BSI-2 by other countries,

including Canada and Japan. This strain is described at ATCC as non-pathogenic, but the PI is not getting it from ATCC, but from another research lab. The materials require testing, by either the PI or the source lab, before they can be described as non-pathogenic and are not antibiotic resistant, (vancomycin, in particular). A member pointed out that the desired strain is also available from the USDA.

Required Changes:

- Section 3.2: Revise the Information in the source of the agent to meet one of the criteria below.
 1. Have the source lab at UC Davis test and provide certification that the strain of *Enterococcus Faecium* that you will be receiving is non-pathogenic and not antibiotic resistant.
 2. If the above cannot be done, revise your methods to obtain the agent from either ATCC or the USDA.
 3. Alternately, you could arrange to test the samples received from UC Davis yourself. Be advised that this will require BSL-2 containment during the testing phase and will require revision and resubmission of the BAF.
- Administrative Change to Section 2 H: I will change the answer regarding use of infectious agents back 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 (unless the PI utilizes option #3 regarding the source of the agent; that will require re-review by the convened IBC). The motion was proposed by Phil B. and seconded by Dubraska C.

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

B. Renewals:

1. **BAF Number: 808-007** *Principal Investigator: Pappu, Hanu*
Title: Biological and Molecular Studies on Viruses affecting Annual and Perennial Crops
Facilities: Current BSM: Current

Primary Reviewer: Linda T. Secondary Reviewer: Eric S.

Hanu P. recused himself from the meeting. Quorum was maintained, as 6 of a potential 9 voting members remained. Linda T. was not present, but sent comments via email, which were read to the committee by Mike K.

Discussion:

The only concerns were whether JM-101 was truly K-12 or a derivative, and whether the cells used lacked helper viruses.

Required Changes:

- Have BSO verify that JM-101 is an E. coli K-12 or derivative. If not, change the ninth question in Section 3 to ‘no.’

- Section 4: Indicate if the cells have helper viruses (III-E, E-1).

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 Eric S. and seconded by Adi N.

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

Hanu P. returned to the meeting (7 Members).

2. **BAF Number: 964-005** *Principal Investigator: Carris, Lori*
Title: Systematics and biology of Smut Fungi (Ustilaginomycota) and Morel Mushrooms (Morchella spp)
Facilities: Inspections requested 4.17 BSM: Update requested 4/17

Primary Reviewer: Linda T.

Secondary Reviewer: Mike K.

Linda T. was not present, but sent comments via email, which were read to the committee by Mike K.

Discussion:

The only concern was that the committee decided that the NIH category III-E, E-2 was appropriate (as opposed to III-F).

Required Changes:

- Section 4: Change NIH category to III-E, E-2. This can be done administratively.

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 Mike K. and seconded by Hanu P.

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

V. Bio-Incident Reports

Upon re-certification, 8 Biosafety Cabinets (BSC) in the Spokane Pharmacy and Biosciences building failed to meet specifications. The cause of these failures is under investigation. WSU is working with the contractor who performs the certification tests and the BSC manufacturer to get current on the certifications. The ORA is working on the incident report that will be sent to the NIH.

VI. Adjournment

The meeting adjourned at 13:50.

WSU IBC Minutes
June 29, 2015

IBC Members Present:

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

IBC Members Absent:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
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
2.	Ryan Schwager	Research Compliance; Assistant BSO
3.	Richard Partain	USDA

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:10, with a quorum (6 of 9 members) present. All members and guests were at the Pullman location.

II. Announcements:

1. Richard Partain from the USDA is a new invited attendee.
2. Levi O'Loughlin has been hired as BSO by the ORA. He will start in July.

III. Minutes – April 27, 2015

Approve. The motion was proposed by Mike K. and seconded by Hanu P.

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

IV. BSL – 2 BAFs

A. New Protocols:

1. **BAF Number: 1225-001** *Principal Investigator: Tanner, Bertrand*
Title: Cardiac and Skeletal Muscle Kinetics
Facilities: Clar. Requested 6-24 *BSM: Requested 6-24*
Primary Reviewer: Steve R. *Secondary Reviewer Dubra C.*

Discussion:

The Plan of Work does not explain the work that is performed with the human and animal tissue, or the disposition of the tissues. The recombinant work is not exempt (III-F), as indicated in the BAF, but rather III-E, E-2. As there is human tissue use, the BSM must be supplemented by an exposure control plan.

Required Changes:

- **Section 2:** Revise the Plan of Work to describe the intended use and disposition of the human and animal tissues.
- **Section 2:** Delete the reference to your lab work being exempt from the NIH Guidelines

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

The motion was proposed by Mike K. and seconded by Dubra D.

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

B. Renewals:

1. **BAF Number: 957-005** *Principal Investigator: Chastagner, Gary*
Title: Sudden Oak Death (Phytophthora ramorum)
Facilities: OK by APHIS *BSM: Current*
Primary Reviewer: Mike K. *Secondary Reviewer: Hanu P.*

Discussion:

The research used to be studying an agent that was not present in Washington State, but has since become present in the region (not due to this research). The facilities have not been inspected, because they are specific to this research and the checklists do not really apply. The researcher has obtained an APHIS permit that covers the facilities as well. There were no concerns regarding approval, nor changes required.

Approve. The motion was proposed by Mike K. and seconded by Hanu P.

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

2. **BAF Number: 1152-003** *Principal Investigator: Tang, Juming*
Title: Factors Affecting Pasteurization Efficacy for Salmonella in Low-Moisture Foods
Facilities: Current *BSM: Current*
Primary Reviewer: Mike K. *Secondary Reviewer: Steve R.*

Discussion:

In Section 3, the BAF says that the assessment of the infectious potential does not apply.

Required Changes:

- **Section 3:** Revise question 3 to describe the biohazardous potential of your agents.

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 Steve R. and seconded by Mike K.

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

3. *BAF Number: 973-007* *Principal Investigator: Besser, Thomas*
Title: E.coli, Salmonella sp. and Campylobacter spp: Comparative microbiology of clinical and veterinary isolates
Facilities: Current BSM: Current

Primary Reviewer: Phil B. *Secondary Reviewer: Eric S.*

Discussion:

Previously involving animal procedures, the research has become mainly assay. There were no concerns regarding approval, nor changes required.

Approve. The motion was proposed by Eric S. and seconded by Mike K.

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

V. **BSL – 1 BAFs**

A. New Protocols:

1. *BAF Number: 1222-001* *Principal Investigator: Kunz, Hans*
Title: Ion Transporters of Plant Chloroplasts
Facilities: requested 5/6/15 BSM: requested 5/6/15

Primary Reviewer: Dubra C. *Secondary Reviewer: Hanu P.*

Discussion:

In Section 4, all the NIH categories were checked. Only III-E, E-2 needs to be indicated.

Required Changes:

- **Section 4:** Uncheck all categories other than III-E.

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 Hanu P. and seconded by Mike K.

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

2. *BAF Number: 1223-001* *Principal Investigator: Tegeder, Mechthild*
Title: Integrating Photoassimilate Source to Sink Transport in Legumes to Enhance Seed Development and Nutrition
Facilities: Inspected 6/25 BSM: Current

Primary Reviewer: Eric S. *Secondary Reviewer: Mike K.*

Discussion:

There were no concerns to prevent approval. One change that needed to be made, however, was to change the answer to the question “The host into which I am introducing foreign DNA or RNA is a cell or organism other than E. coli K-12 or its derivatives, (Saccharomyces cerevisiae, S. uvarum, Bacillus subtilis or B. licheniformis)” to “Yes.” This process is well-described elsewhere, and this change can be made administratively.

Required Changes:

- **Section 4:** Change the answer to the K-12 or derivative question to “Yes.” This change can be made administratively.

Approve with the administrative change to Section 4. The motion was proposed by Mike K. and seconded by Eric S.

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

3. **BAF Number: 1224-001** *Principal Investigator: Sablani, Shyam*
Title: Oxygen Stress on Growth and Survival of Microorganisms in Pasteurized Foods
Facilities: Current BSM: Not Submitted

Primary Reviewer: Eric S. Secondary Reviewer: Steve R.

Discussion:

The researchers are culturing a non-pathogenic BSL-1 test bacteria in pasteurized food. There were no concerns or changes required.

Approve, pending approval of the BSM. The motion was proposed by Steve R. and seconded by Eric S.

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

B. **Renewals:**

1. **BAF Number: 961-005** *Principal Investigator: Chen, Xianming*
Title: Improved Control of Stripe Rust in Cereal Crops
Facilities: Current BSM: Current

Primary Reviewer: Hanu P. Secondary Reviewer: P. Butterfield

Discussion:

There were no concerns regarding approval, nor changes required.

Approve. The motion was proposed by Hanu P. and seconded by Mike K.

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

2. **BAF Number: 1085-003** *Principal Investigator: Johnson, Dennis*
Title: Plant Epidemiology and Forecasting of Potato and Mint Diseases
Facilities: requested 6/11 BSM: requested 6/11
Primary Reviewer: Hanu P. Secondary Reviewer: Eric S.

Discussion:

There were no concerns regarding approval, nor changes required.

Approve, pending approval of the Facilities and BSM. The motion was proposed by Hanu P. and seconded by Eric S.

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

3. *BAF Number: 1147-002* *Principal Investigator: Tegeder, Mechthild*
Title: Essential Roles of Organic Nitrogen Transporters In Whole Plant Physiology
Facilities: Current *BSM: Current*

Primary Reviewer: Dubra D.

Secondary Reviewer: Phil B.

Discussion:

In Section 4, the source of DNA is listed only as ‘Microbes.’ This needs to be specified.

Required Changes:

- **Section 4:** Specify the microbes that are the source of DNA for recombinant work.

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 Dubra D. and seconded by Mike K.

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

4. *BAF Number: 1148-002* *Principal Investigator: Tegeder, Mechthild*
Title: Improving Plant Productivity By Altering Nitrogen Transport Processes
Facilities: *BSM: Under review*

Primary Reviewer: Phil B.

Secondary Reviewer: Dubra D.

Discussion:

In Section 4, the source of DNA is listed only as ‘Microbes.’ This needs to be specified.

Required Changes:

- **Section 4:** Specify the microbes that are the source of DNA for recombinant work.

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 Dubra D. and seconded by Mike K.

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

5. **BAF Number: 1086-005** *Principal Investigator: Knoblauch, Michael*
Title: Investigating Phloem Structure Function in vivo
Facilities: Inspections needed *BSM: Under review*
Primary Reviewer: Steve R. *Secondary Reviewer: Mike K.*

Discussion:

The Scope of Work was not included. Also, the PI has indicated that the DNA/RNA to be cloned is in group 1 or 2, infects eukaryotic cells, and contains more than 2/3 of the genome. This does not appear to be true, and, if it were, it is unlikely that the research would remain BSL-1.

Required Changes:

- **Section 2:** Revise to include the Scope of Work.
- **Section 4:** Verify if the DNA or RNA to be cloned is a Risk Group 1 or 2 virus that infects eukaryotic cells and contains more than two-thirds of the viral genome. If not, change the response 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 Steve R and seconded by Mike K.

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

VI. Biosafety Program Update

A. The annual shutdown of the Allen Center will occur in late July or early August.

VII. New Business

A. As Director of the ORA, Mike K. is actively seeking additional members for the IBC, especially those with experience in plant-based research.

VIII. Adjournment

The meeting adjourned at 14:05.

WSU IBC Minutes
July 27, 2015

IBC Members Present:

	Member	Affiliation/Role
1.	Hanu Pappu	Interim Chair; Plant Pathology
2.	Phillip Butterfield	College of Nursing
3.	Diaz-Campos, Dubraska	College of Veterinary Medicine
4.	Mike Kluzik	Biosafety Officer; Research Compliance
5.	Adi Nkwonta*	Community Member; Pullman Regional Hospital
6.	Steve Russell	Office of the Campus Vet
7.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Mike Heston	Community Member; Pullman Fire Department

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Ryan Schwager	Research Compliance; Assistant BSO

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:12, with a quorum (6 of 9 members) present. In the absence of Eric S., Hanu P. agreed to serve as interim Chair. There were no objections. Also present was Levi O'Loughlin, recently hired BSO, who is still awaiting appointment to the IBC.

II. Minutes – June 29, 2015

Approve. The motion was proposed by Steve R. and seconded by Mike K.
Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

III. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1228-001* *Principal Investigator: Carabeo, Rey*
Title: Chlamydia interactions with epithelial cells
Facilities: Assigned to ORA 7/22 *BSM: Requested 7/22*
Primary Reviewer: Phil B. *Secondary Reviewer: Dubra D.*

Midway through the discussion, Adi N. arrived at 13:18, bringing the number of members present to 7 (of 9).

Discussion:

There are some errors on the application. The location of the microscopy is not listed. The NIH category is marked III-F, but the committee felt that III-D, D-1 was correct for this work. Instead. Additionally, Section 5.7 was not completed. There was

discussion over the biosafety level, as Chlymidia L2 does require some practices over and above those typically used at BSL-2, such as respirators. The BSO has counselled the PI on this. There was also concern over the post-exposure treatment plan in the BAF. The BSO will ensure that the BSM addresses this.

Required Changes:

- Section 2G: Include the microscopy location(s).
- Section 3.3: Revise to be consistent with the post-exposure treatment plan from the Biosafety Manual (BSM).
- Section 4: Change the NIH category of rDNA use to III-D (subcategory D-1), rather than III-F.
- Section 5.7: Complete the questions regarding the Blood-Borne Pathogen Exposure Control Plan.

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 Mike K. and seconded by Phil B.

IBC Vote:

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

B. Renewals:

2. *BAF Number:* **1151-004** *Principal Investigator:* **Petrova, Adelina**
Title: **Host-Insect Molecular Interactions**
Facilities: **Awaiting BSC cert.** *BSM:* **Requested 7/15**
Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Mike K.**

Discussion:

The PI had requested that this be considered BSL-1, but the use of human blood (even if it is a researcher using their own blood) requires BSL-2 containment. There were no concerns with the BAF. The BSM needs to be supplemented by a Blood-Borne Pathogen Exposure Control Plan.

Defer, pending approval of the facilities and BSM/ECP. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Mike K. and seconded by Linda T.

IBC Vote:

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

C. Amendments:

1. *BAF Number:* **867-012** *Principal Investigator:* **Konkel, Michael**
Title: **A novel approach to identify the virulence proteins secreted by Campylobacter jejuni**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Steve R.** *Secondary Reviewer:* **Dubra D.**

Discussion:

The surgical area is not clearly listed among the facilities, but is likely to be in the Veterinary Teaching Hospital (VTH). The committee was not certain that the surgical suites in the VTH satisfied the requirements for BSL-2 containment.

Required Changes:

- Section 2G: list the surgical facilities. If these facilities are not appropriate for BSL-2 work, a new location will need to be selected.

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

The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Steve R. and seconded by Dubraska D.

IBC Vote:

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

IV. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number:* **1226-001** *Principal Investigator:* **Shelden, Eric**
Title: **Expression of Fluorescent Fusion Proteins in Zebrafish**
Facilities: **Current** *BSM:* **Reminder sent 7/23**
Primary Reviewer: **Phil. B** *Secondary Reviewer:* **Steve R.**

Discussion:

The only concern was the indication that the rDNA category was III-D (subcategory D4). This category is not usually found with work that is BSL-1

Clarification:

- Clarify that III-D (subcategory D4) is correct, and, if so, why this work is not BSL-2. If not, revise Section 4.

Defer, pending clarification of the NIH category for rDNA work 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 Steve R. and seconded by Mike K.

IBC Vote:

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

2. *BAF Number:* **1227-001** *Principal Investigator:* **Kirchhoff, Helmut**
Title: **Study the Dynamics of Photosynthetic Membranes in Plants**
Facilities: **Requested 7/15** *BSM:* **Requested 7/15**
Primary Reviewer: **Hanu P.** *Secondary Reviewer:* **Linda T.**

Discussion:

The committee believed that the rDNA work was exempt from the NIH guidelines (III-F), as there is no recombinant work performed by the PI (receiving transgenic plants). Mike K. indicated that this specific transgenic plant may not have approval by another

federal agency, so the III-E category may still apply, but this possibility must be investigated.

Clarifications:

- Clarify that III-E is correct, rather than III-F

Defer, pending clarification of the NIH category for rDNA work 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 Steve R. and seconded by Mike K.

IBC Vote:

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

B. Renewals:

1. *BAF Number: 766-007* *Principal Investigator: Brown, Wendy*
Title: Immunogenicity of the type IV secretion system
Facilities: Current BSM: Update requested 7/13
Primary Reviewer: Steve R. Secondary Reviewer: Mike K.

Discussion:

The cattle housing areas cannot be classified as ABSL-1, and should be listed as “other” in 2G. *Anaplasma Marginale* needs to be labeled as an animal hazard in Section 3. As the procedures involve injecting foreign DNA into organisms other than K-12 or derivatives, the NIH category needs to be changed from III-F to III-E (subcategory E-1, without helper viruses) and changing the answer to the k-12 or derivative question in Section 4.

Required Changes:

- Section 2G: Change the containment level for the Dairy Road Cattle Facility (VET FEED LOT), Animal Resource Unit (ARU) and Vet Quarantine Facility (VET QUAR141H) to ‘Other,’ rather than ‘ABSL-1.’
- Section 3: Revise the indication that *Anaplasma Marginale* is not an animal hazard (change to ‘Yes’).
- Section 4: Change the NIH category of rDNA work to III-E, with subcategory E-1, and answering the follow-up question ‘No.’
- Section 4: Revise the answer to the question regarding introducing foreign DNA into organisms other than K-12 or derivatives to indicate ‘Yes.’

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 Mike K. and seconded by Steve R.

IBC Vote:

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

V. **Open Discussion:**

Levi O'Loughlin, recently hired to replace Mike Kluzik as biosafety officer, introduced himself to the committee.

VI. **Adjournment**

The meeting adjourned at 14:04.

WSU IBC Minutes
August 31, 2015

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

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.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Ryan Schwager	Research Compliance; Assistant BSO
3.	Levi O'Loughlin	Research Compliance; BSO

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:17, with a quorum of 5 of 9 members present. All members, except Phil B, attended from Pullman. Phil B. attended via teleconference from Spokane.

II. Announcements:

None.

III. Minutes – July 27, 2015

Approve. The motion was proposed by Steve R. and seconded by Mike K.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

IV. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1229-001* *Principal Investigator: Chung, Chungwon*
Title: Defining protective cytotoxic T cell response in PRRSV infection
Facilities: Clarification requested 8.11 BSM: Requested 8.11

Primary Reviewer: Dubra D. *Secondary Reviewer Steve R.*

Discussion:

The BAF is not specific as to which chemical will be used to deactivate the agent (although BSM should) and, if animal vaccines are available, what is the purpose of this research (a vaccine trial)? There were no required changes arising from these concerns (investigation reveals that there is a vaccine, but only usable on herds that contain PRRSV; use on uninfected populations can spread the vaccine strain). One concern that did result in a required change was that the BAF did not list labs where the virus would be stored and prepared, nor described the procedures.

Required Changes:

- Section 2A: Revise the plan of work to describe the virus culturing and preparation procedures.
- Section 2G: Identify the laboratory facilities where the viral agent will be cultured and prepared.

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 Mike K and seconded by Eric S.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

2. *BAF Number: 1230-001*

Principal Investigator: Sun, Jingru

Title: Neural regulation of innate immunity to microbial infection in C. elegans

Facilities: Expired BSM: Requested 8/19/15

Primary Reviewer: Phil B.

Secondary Reviewer M. Kluzik

Discussion:

The BAF omits a great deal of essential information in Sections 2 and 3. Also, in section 3, the BAF indicates that there is a human vaccines for *Pseudomonas aeruginosa*, but the reviewers, familiar with this agent, were not aware of any such vaccine. There were some concerns over omissions in Section 4, but this was rectified by submission of a revised version of the BAF.

Required Changes:

- Section 2F: Provide an explanation of your animal containment ('Other' is indicated).
- Section 3, Agents Table: You have indicated there are human vaccines for *Pseudomonas aeruginosa*. Provide documentation of this or revise the answer.
- Section 3.3: Revise to describe the biohazard potential of the agent. List any required vaccinations, if any exist.

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 Mike K and seconded by Phil B..

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

3. *BAF Number: 1232-001* *Principal Investigator: Brozik, James*
Title: Model membrane Assemblies and Membrane Proteins
Facilities: Current *BSM: Requested 8/27/15*

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

Discussion:

The BAF contains inaccurate information, or is missing information. Most of the problems with the BAF were technical (reverse answers or missing answers), except the NIH category for rDNA use and the BSL of the vector system.

Required Changes:

- Section 1: Indicate the level of experience for all personnel.
- Section 2H: revise the category answers to reflect your biological work. Yes to infectious agents and human/primate materials and No to Select Agents.
- Section 3: Add HEK 293 to the agents table, and add the hazard, vaccine information and biosafety level.
- Section 4: change the NIH category to III-D-3 and indicate if the experiment increases the host range and/or pathogenicity. If this is not correct, provide documentation justifying the current indication of III-E-1, no helper viruses.
- Section 5.7: Complete these questions a-d.

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 Mike K and seconded by Eric S.
Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

B. Renewals:

1. *BAF Number: 982-005* *Principal Investigator: Van Dongen, Hans*
Title: Research Studies of Sleep and Performance (Multiple Projects)
Facilities: current *BSM: current*

Primary Reviewer: Mike K. *Secondary Reviewer: Adi N.*

Discussion:

This is not truly biological research. The research personnel are collecting blood, urine and saliva samples from human research subjects, but analysis and sample destruction are by an outside lab. The facilities and Exposure Control Plan are current

Approve. The motion was proposed by Mike K. and seconded by Steve R.
Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

V. **BSL – 1 BAFs**

A. Renewals:

1. *BAF Number: 1153-004* *Principal Investigator: Kahn, Michael*
Title: Unbalancing symbiotic nitrogen fixation: Can we make effectiveness more effective?

Facilities: **Requested of PI 8/6/15** *BSM:* **Sent to BSO 8/6/2015**

Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Eric. S**

Discussion:

The IBC was uncertain if the NIH category III-E-2 or III-D-5 (very similar) was more appropriate.

Defer, pending clarification of the appropriate NIH category, 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 Mike K. and seconded by Eric S.

Total: 5 In favor: 5 Opposed: 0 **Motion Carried (5-0)**

VI. Deferred BAFs

There was little discussion regarding the deferred list, but Mike K. informed the committee that Levi O. would soon be trained and begin to work on resolutions for deferred BAFs

VII. Adjournment

The meeting adjourned at 13:58.

Respectfully Submitted by Patrick Conner on September 4, 2015



WSU IBC Minutes
October 12, 2015

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	ORA Director; Research Compliance
6.	Levi O'Loughlin	Biosafety Officer; Research Compliance
7.	Adi Nkwonta	Community Member; Pullman Regional Hospital
8.	Hanu Pappu	Plant Pathology
9.	Steve Russell	Office of the Campus Vet
10.	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 of 10) of voting members present.

II. Announcements:

During the announcements Linda T arrived at 13:12, and Dubraska D arrived 13:15, bringing the number of members present to 10 of 10.

- A. *B. abortus* incident- Mike K updated the committee on the documents that were sent to the NIH and that both personnel who were potentially exposed were advised to seek medical care.
- B. Mike K briefed the committee on new NIH regulations(D.U.R.K.) requiring NIH approval of research that extended host range or impaired treatment of Infectious agents.

III. Minutes – August 31, 2015

Approve. The motion was proposed by Hanu P and seconded by Eric S.

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

IV. BSL – 2 BAFs

A. New Protocols:

- 1. *BAF Number: 1231-001* *Principal Investigator: Winuthayanon, Wipawee*
Title: Analysis of estrogen and progesterone mechanisms of action in female reproductive tract
Facilities: Current *BSM: Current*
Primary Reviewer: Eric S *Secondary Reviewer Steve R*

Discussion:

The research does not require BSL-2 containment. Although such work may be added in the future, it can be accomplished by amendment or a new BAF. The only real concern was that autoclave is not sufficient to dispose of tissues.

Required Changes:

- Section 2A: Change the method of tissue disposal to incineration.
- Section 2F: Change the biosafety level to BSL-1.

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 Eric S and seconded by Linda T.

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

2. *BAF Number: 1234-001* *Principal Investigator: Mancini, Rock*
Title: A Molecular Approach to Subunit Vaccine Development
Facilities: Assigned to ORA 9.14 *BSM: Requested 9.14.15*

Primary Reviewer: Hanu P *Secondary Reviewer: Levi O*

Discussion:

There were no controverted issues or barriers to approval.

Approve. The motion was proposed by Hanu P and seconded by Mike K.

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

B. Renewals:

Eric S recused himself from the meeting. Quorum was maintained (9 of 10 members). Hanu P served as Interim Chair.

1. *BAF Number: 1155-002* *Principal Investigator: Shelden, Eric*
Title: Stress response signaling and gene regulation in tumor cells
Facilities: Current *BSM: Under review*
Primary Reviewer: Phil B *Secondary Reviewer: Mike K*

Discussion:

There were no controverted issues or barriers to approval.

Approve upon the approval of the BSM. The motion was proposed by Mike K and seconded by Phil B.

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

Eric S returned to the meeting (10 members), and resumed the Chair.

2. *BAF Number: 1158-002* *Principal Investigator: Vadyvaloo, Viveka*
Title: Mechanisms of Yersinia pestis transmission from its flea vector

Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Steve R** *Secondary Reviewer:* **Levi O**

Discussion:

The BAF must specify how the mice relate to the research.

Required Changes:

- Section 2A: Add a statement that mice are used as a food source for the fleas only, and are not involved in biological procedures.

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 Mike K and seconded by Steve R.

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

V. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number:***1233-001** *Principal Investigator:* **Piovia-Scott, Jonah**
Title: **The effects of the fungal pathogen *Batrachochytrium dendrobatidis* (Bd) on amphibian hosts**
Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Steve R** *Secondary Reviewer:* **Levi O**

Discussion:

The researcher has a contract with a waste disposal service, and needs to verify that the waste is sent for incineration.

Required Changes:

- Clarify the means of disposal of biohazardous waste.

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 Eric S and seconded by Steve R.

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

2. *BAF Number:***1235-001** *Principal Investigator:* **Gerstner, Jason**
Title: **Neurogenetics and behavioral analytics in *Drosophila melanogaster***
Facilities: **SPO_INNOVATE need inspect** *BSM:* **Current**
Primary Reviewer: **Levi O** *Secondary Reviewer:* **Phil B**

Discussion:

The BAF does not specify the genes to be cloned and all of the means of disposal of the flies.

Required Changes:

- Section 4: Specify the genes to be cloned.
- Section 7: include the vinegar traps among the methods of disposal.

Defer, pending completion of the required changes and approval of the facilities. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Phil B and seconded by Mike K.

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

B. Renewals:

1. *BAF Number: 975-005* *Principal Investigator: Hulbert, Scot*

Title: Wheat - Puccinia Interactions

Facilities: Current until 2/16 BSM: Submitted 10/1/15

Primary Reviewer: Linda T

Secondary Reviewer Hanu P

Discussion:

There were no controverted issues or barriers to approval.

Approve upon the approval of the BSM. The motion was proposed by Linda T and seconded by Levi O.

C. Amendments: None

VI. **BAFs Approved in the Interim**

A. Administrative Approvals:

1. *BAF Number: 814-014* *Principal Investigator: Call, Douglas*

Title: Gene Knockouts and Recombinant Proteins

Primary Reviewer: Levi O

- 10/1/15: Personnel amendment received.
- 10/2/15: Personnel amendment approved by BSO.

2. *BAF Number: 923-021* *Principal Investigator: Call, Douglas*

Title: Gene Knockouts and Recombinant Proteins

Primary Reviewer: Levi O

- 10/1/15: Personnel amendment received.
- 10/2/15: Personnel amendment approved by BSO.

B. Other Approvals:

1. *BAF Number: 1194-002* *Principal Investigator: Wang, Zhenjia*

Title: Nanoparticle Drug Delivery

Facilities: Current BSM: Current

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

- 12/15/14: deferred by IBC, pending revision to the BAF (assigned reviewers and BSO).
- 12/19/14: Response to comments received and forwarded to Assigned reviewers and BSO
- 12/22/14: Reviewer has responded with additional comments.
- 12/23/14: Additional comments sent to PI.
- 1/5/15: response to 12/23 comments received.
- 3/5/15: PI response sent to reviewers.

- 3/6/15: Reviewers have additional comments. Comments sent to PI. PI and coordinator completed requested changes and BAF sent back to reviewer.
- 3/12/15: P. Butterfield indicated approval.
- 9/2/15: M. Kluzik approved; BAF approved.

2. *BAF Number: 766-007* *Principal Investigator: Brown, Wendy*

Title: Immunogenicity of the type IV secretion system

Facilities: Current BSM: Update requested 7/13

Primary Reviewer: Steve R. Secondary Reviewer: Mike K

- 7/27/15: deferred by IBC pending revision to BAF and BSM approve.
- 8/11/15: Revised BAF received.
- 8/13/15: BSM approved.
- 9/4/15: BAF approved.

3. *BAF Number: 1152-003* *Principal Investigator: Tang, Juming*

Title: Factors Affecting Pasteurization Efficacy for Salmonella in Low-Moisture Foods

Facilities: Current BSM: Current

Primary Reviewer: Mike K. Secondary Reviewer: Steve R.

- 6/29/15: Deferred by IBC pending revision to the BAF
- 7/10/15: revised BAF received; revisions sent to reviewers
- 8/19/15: Revisions re-sent to reviewers
- 8/20/15: Steve R approval received.
- 9/4/15: Mike K approval received. BAF approved.

4. *BAF Number: 800-007* *Principal Investigator: Gloss, Lisa*

Title: Histone and nucleosome stability and dynamics.

Facilities: Current BSM: Current

Primary Reviewer: Eric S. Secondary Reviewer: Mike K.

- 3/30/15: deferred by IBC, pending revision to the BAF approval (unless primary reviewer objects). BSO to grant approval.
- 4/2/15: PI has responded to comments. BAF updated and sent to BSO.
- 9/4/15: BAF approved by BSO.

5. *BAF Number: 1080-004* *Principal Investigator: Hunzicker-Dunn, Mary*

Title: FSH - Stimulated Signals that Regulate Follicular Maturation

Facilities: Current BSM: Current

Primary Reviewer: Dubraska D. Secondary Reviewer: Mike K.

- 3/30/15: deferred by IBC, pending revision to the BAF and facility approval [Coordinator's note: the facilities were approved 3/23, but the Agenda was not updated]. BSO to grant approval.
- 4/3/15: PI has revised BAF. Forwarded to BSO.
- 9/4/15: BAF approved.

6. *BAF Number: 867-012* *Principal Investigator: Konkel, Michael*
Title: A novel approach to identify the virulence proteins secreted by *Campylobacter jejuni*
Facilities: Current BSM: Current
Primary Reviewer: Steve R. Secondary Reviewer: Dubra D.
- 7/27/15: deferred by IBC pending selection of BSL-2 surgical suite and FR approval.
 - 8/25/15: BAF approved.
7. *BAF Number: 589-007* *Principal Investigator: Murray, Timothy*
Title: Controlling Diseases of Wheat: Eyespot, Caphalosporium Stripe, Speckled Snow Mold and Wheat Streak Mosaic
Facilities: Requested 2.17 BSM: Under review
Primary Reviewer: L. Thomashow Secondary Reviewer A. Nkwonta
- 2/23/15: Deferred by IBC, pending clarifications in the BAF, and approval of the FR.
 - 2/24/15: Response to comments, Facility checklists and permits received and sent to BSO. Facilities and BSM approved.
 - 9/8/15: Permit for *Rathayibacter toxicus* DNA received.
 - 9/9/15: Permit forwarded to BSO.
 - 9/10/15: Facility reviews completed. Facilities approved. BAF approved.
8. *BAF Number: 1227-001* *Principal Investigator: Kirchhoff, Helmut*
Title: Study the Dynamics of Photosynthetic Membranes in Plants
Facilities: Requested 7/15 BSM: Requested 7/15
Primary Reviewer: Hanu P. Secondary Reviewer: Linda T.
- 7/27/15: Deferred by IBC, pending clarification of the NIH category for rDNA work and approval of the facilities and BSM.
 - 9/14/15: BSM Approved by BSO.
 - 9/15/15: BSL adjusted and BAF approved.
9. *BAF Number: 655-007* *Principal Investigator: Poovaiah, B.W.*
Title: Calcium/Calmodulin-mediated Signal Network in Plants
Facilities: requested 11.7 BSM: requested 11.7
Primary Reviewer: H. Pappu Secondary Reviewer: L. Thomashow
- 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 2/5/15: revised BAF and FR received.
 - 2/25/15: BAF to Reviewers, FRs to BSO. Still awaiting BSM. FRs approved.
 - 3/20/15: BSM requested again from PI.
 - 9/14/15: BSM approved by ABSO.
 - 9/16/15: Revisions re-sent to Primary reviewer.
 - 9/18/15: BAF Approved.
10. *BAF Number: 808-007* *Principal Investigator: Pappu, Hanu*

Title: Biological and Molecular Studies on Viruses affecting Annual and Perennial Crops

Facilities: Current BSM: Current

Primary Reviewer: Linda T. Secondary Reviewer: Eric S.

- 4/27/15: deferred by IBC, pending clarification.
- 9/15/15: Approved by BSO.

11. BAF Number: 1229-001 Principal Investigator: Chung, Chungwon

Title: Defining protective cytotoxic T cell response in PRRSV infection

Facilities: Clarification requested 8.11 BSM: Requested 8.11

Primary Reviewer: Dubra D. Secondary Reviewer Steve R.

- 8/31/15: deferred by IBC, pending revision to the BAF, and approvals of the Facilities and BSM (Reviewers and BSO to approve).
- 9/4/15: revised BAF received.
- 9/18/2015: BAF approved.

12. BAF Number: 964-005 Principal Investigator: Carris, Lori

Title: Systematics and biology of Smut Fungi (Ustilaginomycota) and Morel Mushrooms (Morchella spp)

Facilities: Inspections requested 4.17 BSM: Update requested 4/17

Primary Reviewer: Linda T. Secondary Reviewer: Mike K.

- 4/27/2015: Deferred by IBC, pending revision, BSM and FR.
- 5/4/15: BSM submitted
- 5/5/15: BSM approved.
- 9/21/15: BAF approved with Admin update.

13. BAF Number: 1086-005 Principal Investigator: Knoblauch, Michael

Title: Investigating Phloem Structure Function in vivo

Facilities: Inspections needed BSM: Under review

Primary Reviewer: Steve R. Secondary Reviewer: Mike K.

- 6/29/15: Deferred by IBC, pending BAF revision and approval of BSM/FR.
- 9/21/15: BAF approved

14. BAF Number: 1147-002 Principal Investigator: Tegeder, Mechthild

Title: Essential Roles of Organic Nitrogen Transporters In Whole Plant Physiology

Facilities: Current BSM: Current

Primary Reviewer: Dubra D. Secondary Reviewer: Phil B.

- 6/29/15: Deferred, pending BAF revision.
- 9/29/15: BSM approved. BAF approved.

15. BAF Number: 1148-002 Principal Investigator: Tegeder, Mechthild

Title: Improving Plant Productivity By Altering Nitrogen Transport Processes

Facilities: BSM: Under review

Primary Reviewer: Phil B. Secondary Reviewer: Dubra D.

- 6/29/15: Deferred, pending BAF revision.

- 9/29/15: BSM approved. BAF approved.
16. *BAF Number:* **1230-001** *Principal Investigator:* **Sun, Jingru**
Title: **Neural regulation of innate immunity to microbial infection in *C. elegans***
Facilities: **Expired** *BSM:* **Requested 8/19/15**
Primary Reviewer: **Phil B.** *Secondary Reviewer:* **M. Kluzik**
- 8/31/15: Deferred by IBC, pending revision to the BAF and approvals of the BSM and facilities.
 - 9/4/15: revised BAF received.
 - 9/9/15: revisions sent to BSO.
 - 9/15/15: BAF approval email from Phil B.
 - 9/29/15: BSM approved. BAF approved.
17. *BAF Number:* **533-011** *Principal Investigator:* **Kim, Kwanhee**
Title: **Retinoid Signaling and Phthalate Effects on the Testis**
Facilities: **Assigned to ORA 11.7** *BSM:* **Received 11.12**
Primary Reviewer: **E. Shelden** *Secondary Reviewer:* **S. Russell**
- 12/15/14: deferred by IBC, pending revision to the BAF and BSL clarification (assigned reviewers and BSO). Facilities approved.
 - 1/19/15: revised BAF sent to reviewers.
 - 3/4/2015: reminder sent to reviewers.
 - 10/2/15: BAF approved.
18. *BAF Number:* **814-013** *Principal Investigator:* **Call, Douglas**
Title: **Gene Knockouts and Recombinant Proteins**
Facilities: **Current** *BSM:* **Update requested 1/6**
Primary Reviewer: **E. Shelden** *Second Reviewer:* **S. Russell**
- 1/26/15: deferred by IBC, pending revision of the BAF and BSM approval (Reviewers).
 - 2/13/15: comments sent to PI; BSM reminder sent.
 - 2/18/15: response received, not all comments addressed on BAF.
 - 10/2/15: BAF approved.
19. *BAF Number:* **795-007** *Principal Investigator:* **Okubara, Patricia**
Title: **Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic**
Facilities: **Current** *BSM:* **current**
Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Hanu P.**
- 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
 - 9/29/2015: BSM and facilities approved.
 - 10/2/15: BAF Approved.
20. *BAF Number:* **1232-001** *Principal Investigator:* **Brozik, James**
Title: **Model membrane Assemblies and Membrane Proteins**

*Facilities:***Current** *BSM:* **Requested 8/27/15**

Primary Reviewer: **Eric. S.**

Secondary Reviewer **M. Kluzik**

- 8/31/15: deferred by IBC, pending BAF revision, and facility and BSM approval (BSO to approve).
- 10/2/15: BAF approved.

C. Deactivations: None

VII. Deferred BAFs

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**

- 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).
- 2/12/15: comments re-sent, along with FR and BSM request.

2. *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.
- 2/19/15: FRs requested from PI.

3. *BAF Number:* **384-007** *Principal Investigator:* **Okita, Thomas**

Title: **Studies on RNA Localization and Starch Regulation in Plants**

Facilities: **Requested 8.27** *BSM:* **Under Review (9.9)**

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

- 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
- 9/23/14: response to comments received and sent to BSO.
- 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.

4. *BAF Number:* **1201-001**

Principal Investigator: **Glawe, Dean**

Title: **Host specificity of powdery mildew**

Facilities: **Requested 10.15** *BSM:* **Requested 10.15**

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

- 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.

- 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
5. *BAF Number:* **1203-001** *Principal Investigator:* **Smertenko, Andrii**
Title: **Identification of Novel Components of Cell Wall Synthesis Machinery**
Facilities: **Requested 11.7** *BSM:* **Requested 11.7**
Primary Reviewer: **L. Thomashow** *Secondary Reviewer:* **H. Pappu**
- 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
6. *BAF Number:* **1211-001** *Principal Investigator:* **Vogel, Kara**
Title: **Zebrafish research**
Facilities: **Expired** *BSM:* **None**
Primary Reviewer: **M. Kluzik** *Secondary Reviewer:* **E. Shelden**
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
7. *BAF Number:* **1141-002** *Principal Investigator:* **Coffin, Allison**
Title: **Hair cell death and protection in the zebrafish lateral line**
Facilities: **Received 2/9** *BSM:* **Received 2/9**
Primary Reviewer: **M. Kluzik** *Secondary Reviewer:* **E. Shelden**
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
8. *BAF Number:* **1143-003** *Principal Investigator:* **Killinger, Karen**
Title: **Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain**
Facilities: **Requested 2/17** *BSM:* **Requested 2/17**
Primary Reviewer: **S. Russell** *Secondary Reviewer:* **D. Diaz-Campos**
- 2/23/15: Deferred by IBC, pending revision to the BAF and approval of the BSM and Facilities
 - 2/24/15: Response to comments received
 - 2/25/15: Facilities approved.
 - 5/29/15: PI response re-sent to reviewers.
9. *BAF Number:* **795-007** *Principal Investigator:* **Okubara, Patricia**

Title: **Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic**

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

Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Hanu P.**

- 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
- 9/29/2015: BSM and facilities approved.

10. BAF Number: 1222-001 Principal Investigator: Kunz, Hans

Title: **Ion Transporters of Plant Chloroplasts**

Facilities: **requested 5/6/15** *BSM:* **requested 5/6/15**

Primary Reviewer: **Dubra C.** *Secondary Reviewer:* **Hanu P.**

- 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.

11. BAF Number: 1151-004 Principal Investigator: Petrova, Adelina

Title: **Host-Insect Molecular Interactions**

Facilities: **Awaiting BSC cert.** *BSM:* **Requested 7/15**

Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Mike K.**

- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
- 7/30/15: BSL-2 facility approved.

VIII. Adjournment

The meeting adjourned at 14:05.

WSU IBC Minutes
October 26, 2015

IBC Members Present:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Mike Kluzik	ORA Director; Research Compliance
3.	Levi O’Loughlin	Biosafety Officer; Research Compliance
4.	Adi Nkwonta	Community Member; Pullman Regional Hospital
5.	Steve Russell	Office of the Campus Vet
6.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Members Absent:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Diaz-Campos, Dubraska	College of Veterinary Medicine
3.	Mike Heston	Community Member; Pullman Fire Department
4.	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 13:11, with a quorum (6 of 10 members) present. All members, except for Phil B, attended at the Pullman location. Phil B attended from Spokane. In the absence of Eric S, Levi O served as interim Chair.

II. Minutes – August 31, 2015

Approve. The motion was proposed by Levi O, and seconded by Phil B.
Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

III. BSL – 2 BAFs

A. Renewals:

1. *BAF Number: 528-016* *Principal Investigator: Krueger, James*
Title: Molecular mechanisms of Sleep Responses to Viral Infections
Facilities: Expired *BSM: Expired*
Primary Reviewer: Levi O *Secondary Reviewer: Phil B*

Discussion:

The only point of contention was the NIH category for the use of recombinant DNA. III-D-4 is a more accurate depiction of the rDNA work than III-E-1 and E-3, as is indicated on the BAF.

Required Changes:

- Section 4: change the NIH category two III-D-4, answering no to both follow-up questions.

Approve, with administrative change. The motion was proposed by Levi O and seconded by Phil B.

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

2. BAF Number: 730-008 *Principal Investigator: Brayton, Kelly*

Title: Genomic analysis of Anaplasma marginale

Facilities: Expired BSM: Expired

Primary Reviewer: Steve R Secondary Reviewer: Mike K

Discussion:

As this research proposes to introduce a genetically modified organism into cattle, there were many concerns over the information in the BAF. Section four indicates that the NIH category for the use of recombinant DNA is III-F (exempt). However, the committee argued that III-D-4 was more appropriate. The use of this organism also raised concerns over the animal housing and containment of the organism. Additionally, the proposed message of disposition of the cattle is public sale. However, NIH guidelines prohibit the sale of animals that have been host to genetically modified organisms. The committee also felt that the blood borne pathogen exposure control plan needed to be part of the Biosafety Manual.

Required Changes:

- Section 2G: Clarify the USDA-ARS location and how animals are contained. If necessary, provide a narrative.
- Section 3.6: Clarify what group of animals will be sold. Be mindful that animals that have hosted a genetically-modified organism cannot be sold.
- Section 4: Change the NIH category to III-D, D-4 (no and no).
- Section 4: List all the cell lines that appear in section 5 as hosts
- Section 4: Revise the BSL of the Sources of DNA.
- Submit a blood-borne pathogen exposure control plan, unless such a plan is already part of the biosafety manual.

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 and BSO. The motion was proposed by Steve R and seconded by Linda T.

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

3. BAF Number: 980-007 *Principal Investigator: Abu-Lail, Nehal*

Title: Nanoscale interactions between microbes and soil as well as microbes and antimicrobial compounds

Facilities: Current BSM: Under review

Primary Reviewer: Eric S Secondary Reviewer: Phil B

Discussion:

The committee did not agree that there are human vaccines, as is indicated on the BAF. There was concern over how the samples were prepared for microscopy. Levi O shared that all samples are both deactivated and fixed before being taken for microscopy. This is not described in the BAF, though.

Required Changes:

- Section 2A: specify that the agents are deactivated before microscopy and that the samples will be fixed.
- Section 3: Change the indication that there are human vaccines available to ‘No,’ or provide documentation that there are such vaccines.

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 Levi O and seconded by Phil B.

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

4. *BAF Number: 1160-002* *Principal Investigator: Zhu, Meijun*
Title: Pathogen prevalence, host immune responses and their interaction as well as safety of foods
Facilities: Expired BSM: Expired
Primary Reviewer: Mike K Secondary Reviewer: Levi O

Discussion:

The biggest concern was the approvals of the laboratories and Biosafety Manual. There are some indications in the BAF that are incorrect, but can be revised administratively.

Required Changes:

- Section 4: Change the indication that the research involves Risk Group 3 agents to ‘No.’
- Section 4: Change the indication that the foreign DNA is being injected into a host other than K-12 or derivative to ‘Yes.’
- Section 5: Change the description of the human/primate cells to “Established Cell Lines.”

Defer, pending completion of the required changes (all can be done administratively) and approval of the facilities and BSM. The motion was proposed by Mike K and seconded by Levi O.

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

IV. 1160BSL – 1 BAFs

A. New Protocols:

1. *BAF Number: 1236-001* *Principal Investigator: Eastwell, Kenneth*
Title: WSU ELISA Testing Service
Facilities: Unapproved BSM: Under review
Primary Reviewer: Hanu P Secondary Reviewer: Levi O

Discussion:

There were no concerns over the BAF, nor barriers to approval.

Approve. The motion was proposed by Levi O and seconded by Linda T.

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

2. *BAF Number: 1237-001* *Principal Investigator: Rossi, David*
Title: Brain malfunction and damage during ischemia and drug abuse
Facilities: Unapproved BSM: Under Review
Primary Reviewer: Mike K *Secondary Reviewer: Eric S*

Discussion:

The only contended issue was that Section 4 indicates that the NIH category for the use of recombinant DNA is III-F (exempt). However, the committee argued that III-E-3 was more appropriate. This change can be made administratively.

Required Changes:

- Change the NIH category two III-E-3. This change can be made administratively.

Approve with the completion of the administrative change. The motion was proposed by Mike K and seconded by Steve R.

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

B. Renewals:

1. *BAF Number: 976-010* *Principal Investigator: Eastwell, Kenneth*
Title: Managing Plant Viruses of Perennial, Vegetatively-Propagated Plants to Reduce their Economic Impact
Facilities: Expired BSM: Under review
Primary Reviewer: Hanu P *Secondary Reviewer: Levi O*

Discussion:

There were no concerns over the BAF, nor barriers to approval.

Approve. The motion was proposed by Levi O and seconded by Linda T.

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

V. **BAFs Approved in the Interim**

A. Administrative Approvals:

1. *BAF Number: 1202-002* *Principal Investigator: Fritz, Heather*
Title: Cultivation, characterization and immunopathogenesis of protozoal parasites affecting animals and humans
Primary Reviewer: Patrick C

- 10/8/15: Personnel amendment received.
 - 10/12/15: amendment approved.
2. **BAF Number: 1218-003** *Principal Investigator: Frank, Marcos*
Title: Mouse transgenics sleep and plasticity
Primary Reviewer: Levi O

- 10/9/15: Amendment adding mice as a host received.
- 10/19/15: Amendment approved.

B. Other Approvals:

1. **BAF Number: 1155-002** *Principal Investigator: Shelden, Eric*
Title: Stress response signaling and gene regulation in tumor cells
Facilities: Current BSM: Under review
Primary Reviewer: Phil B Secondary Reviewer Mike K
- 10/12/15: Deferred by IBC, pending BSM approval.
 - 10/13/15: BSM approved, BAF approved.
3. **BAF Number: 1158-002** *Principal Investigator: Vadyvaloo, Viveka*
Title: Mechanisms of Yersinia pestis transmission from its flea vector
Facilities: ADBF 4059 expiring 12/15 BSM: Current
Primary Reviewer: Steve R Secondary Reviewer Levi O
- 10/12/15: deferred by IBC, pending BAF revision.
 - 10/12/15: BAF revised and approved.

1. **BAF Number:1235-001** *Principal Investigator: Gerstner, Jason*
Title: Neurogenetics and behavioral analytics in Drosophila melanogaster
Facilities: Current BSM: Current
Primary Reviewer: Levi O Secondary Reviewer: Phil B
- 10/12/15: deferred by IBC, pending BAF revision.
 - 10/13/15: BAF revised and approved.
2. **BAF Number: 975-005** *Principal Investigator: Hulbert, Scot*
Title: Wheat - Puccinia Interactions
Facilities: Current until 2/16 BSM: Submitted 10/1/15
Primary Reviewer: Linda T Secondary Reviewer Hanu P
- 10/12/15: Deferred by IBC, pending BSM approval.
 - 10/13/15: BSM approved, BAF approved.

C. Deactivations:

1. **BAF Number: 1156** *Principal Investigator: Noratto, Giuliana*
Title: Foods as Source of Bioactive Compounds That Can Protect from Obesity and Chronic Diseases
- PI did not respond to expiration notices. BAF expired 9/22/15 and was deactuated.

VI. Deferred BAFs

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*
 - 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. *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.
 - 2/19/15: FRs requested from PI.
3. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
4. *BAF Number: 1201-001* *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
5. *BAF Number: 1203-001* *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.

- 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
6. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
7. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 *BSM: Received 2/9*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
8. *BAF Number: 1143-003* *Principal Investigator: Killinger, Karen*
Title: Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain
Facilities: Requested 2/17 *BSM: Requested 2/17*
Primary Reviewer: S. Russell *Secondary Reviewer D. Diaz-Campos*
- 2/23/15: Deferred by IBC, pending revision to the BAF and approval of the BSM and Facilities
 - 2/24/15: Response to comments received
 - 2/25/15: Facilities approved.
 - 5/29/15: PI response re-sent to reviewers.
9. *BAF Number: 795-007* *Principal Investigator: Okubara, Patricia*
Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic
Facilities: Current *BSM: current*
Primary Reviewer: Linda T. *Secondary Reviewer: Hanu P.*
- 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
 - 9/29/2015: BSM and facilities approved.
10. *BAF Number: 1222-001* *Principal Investigator: Kunz, Hans*
Title: Ion Transporters of Plant Chloroplasts
Facilities: requested 5/6/15 *BSM: requested 5/6/15*
Primary Reviewer: Dubra C. *Secondary Reviewer: Hanu P.*
- 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.
11. *BAF Number: 1151-004* *Principal Investigator: Petrova, Adelina*
Title: Host-Insect Molecular Interactions

Facilities: **Awaiting BSC cert.** *BSM:* **Requested 7/15**
Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Mike K.**

- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
- 7/30/15: BSL-2 facility approved.
- 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.

12. BAF Number: 1231-001 *Principal Investigator:* **Winuthayanon, Wipawee**
Title: **Analysis of estrogen and progesterone mechanisms of action in female reproductive tract**

Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Eric S** *Secondary Reviewer* **Steve R**

- 10/12/15: deferred by IBC, pending revision to the BAF.
- 10/16/15: Revised BAF received.

13. BAF Number:1233-001 *Principal Investigator:* **Piovia-Scott, Jonah**
Title: **The effects of the fungal pathogen Batrachochytrium dendrobatidis (Bd) on amphibian hosts**

Facilities: **Current** *BSM:* **Current**
Primary Reviewer: **Steve R** *Secondary Reviewer:* **Levi O**

- Deferred by IBC, pending clarification of the method of biohazardous disposal.

VII. Adjournment

The meeting was adjourned at 13:57.

WSU IBC Minutes
November 16, 2015

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Mike Kluzik	ORA Director; Research Compliance
3.	Phillip Butterfield	College of Nursing
4.	Hanu Pappu	Plant Pathology
5.	Linda Thomashow	USDA/ARS; Plant Pathology
6.	Levi O'Loughlin	Biosafety Officer; Research Compliance

IBC Members Absent:

	Member	Affiliation/Role
1.	Diaz-Campos, Dubraska	College of Veterinary Medicine
2.	Adi Nkwonta	Community Member; Pullman Regional Hospital
3.	Mike Heston	Community Member; Pullman Fire Department
4.	Steve Russell	Office of the Campus Vet

IBC Invited Guests:

	Guest	Affiliation/Role
1.	None	

I. Call to Order:

The meeting was called to order at 13:12, with a quorum (6 of 10 members) present. All members, except for Phil B, attended at the Pullman location. Phil B attended from Spokane.

II. Announcements:

The need for a new community committee member was discussed.

III. Minutes – October 26, 2015

Approve. The motion was proposed by Hanu P and seconded by Linda T.

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

IV. BSL – 3 BAFs

A. New Protocols: None

B. Renewals: None

C. Amendments: None

V. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1238-001*

Principal Investigator: Carabeo, Rey

Title: Targeting the endocytic recycling compartment as a novel anti-influenzal and anti-kinetoplastid strategy

Facilities: Current BSM: Current

Primary Reviewer: Eric S Secondary Reviewer Levi O

Discussion:

The only point of contention was the inactivation of the biohazards.

Required Changes:

- Section 3, Question 5: change the “1% bleach” to be consistent with disinfection procedures as found in the BSM which states “1% Virkon or 20% bleach.”

Approve, with administrative change. The motion was proposed by Eric S. and seconded by Linda T.

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

B. Renewals:

1. BAF Number: 600-016 Principal Investigator: Noh, Susan

Title: Pathogen determinants of vector-borne transmission

Facilities: Current BSM: Current

Primary Reviewer: Levi O Secondary Reviewer Phil B

Discussion:

The only point of contention was the disposition of the animals.

Required Changes:

- Section 3, Question 6: change the disposition of the animals from “rendered” to “incinerated” to be consistent with the NIH guidelines which indicate that any animals treated with recombinant or synthetic nucleic acids cannot enter the food chain.

Approve, with administrative change. The motion was proposed by Levi O. and seconded by Linda T.

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

2. BAF Number: 1163-004 Principal Investigator: Knodler, Leigh

Title: Pathogenesis of enteric bacteria

Facilities: Current BSM: Current

Primary Reviewer: Mike K Secondary Reviewer Linda T

Discussion:

One of the most exemplary BAF protocols written.

Required Changes:

- None

Approve, with administrative change. The motion was proposed by Linda T. and seconded by Mike K.

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

VI. BSL – 1 BAFs

- A. New Protocols: None
- B. Renewals: None
- C. Amendments: None

VII. BAFs Approved in the Interim

A. Administrative Approvals:

1. *BAF Number: 1202-003* *Principal Investigator: Fritz, Heather*
Title: Cultivation, characterization and immunopathogenesis of protozoal parasites affecting animals and humans
 - 10/20/15: Personnel amendment received.
 - 11/6/15: Amendment approved.

B. Other Approvals:

C. Deactivations:

VIII. Deferred BAFs

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*
 - 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. *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.
 - 2/19/15: FRs requested from PI.
3. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants

- Facilities: Requested 8.27* *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
4. *BAF Number: 1201-001* *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
5. *BAF Number: 1203-001* *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
6. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
7. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 *BSM: Received 2/9*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
8. *BAF Number: 1143-003* *Principal Investigator: Killinger, Karen*

Title: Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain

Facilities: Requested 2/17 **BSM: Requested 2/17**

Primary Reviewer: S. Russell **Secondary Reviewer D. Diaz-Campos**

- 2/23/15: Deferred by IBC, pending revision to the BAF and approval of the BSM and Facilities
- 2/24/15: Response to comments received
- 2/25/15: Facilities approved.
- 5/29/15: PI response re-sent to reviewers.

9. BAF Number: 795-007 **Principal Investigator: Okubara, Patricia**

Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic

Facilities: Current **BSM: current**

Primary Reviewer: Linda T. **Secondary Reviewer: Hanu P.**

- 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
- 9/29/2015: BSM and facilities approved.

10. BAF Number: 1222-001 **Principal Investigator: Kunz, Hans**

Title: Ion Transporters of Plant Chloroplasts

Facilities: requested 5/6/15 **BSM: requested 5/6/15**

Primary Reviewer: Dubra C. **Secondary Reviewer: Hanu P.**

- 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.

11. BAF Number: 1151-004 **Principal Investigator: Petrova, Adelina**

Title: Host-Insect Molecular Interactions

Facilities: Awaiting BSC cert. **BSM: Requested 7/15**

Primary Reviewer: Linda T. **Secondary Reviewer: Mike K.**

- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
- 7/30/15: BSL-2 facility approved.
- 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.

12. BAF Number: 1231-001 **Principal Investigator: Winuthayanon, Wipawee**

Title: Analysis of estrogen and progesterone mechanisms of action in female reproductive tract

Facilities: Current **BSM: Current**

Primary Reviewer: Eric S **Secondary Reviewer Steve R**

- 10/12/15: deferred by IBC, pending revision to the BAF.
- 10/16/15: Revised BAF received.

13. BAF Number:1233-001 **Principal Investigator: Piovia-Scott, Jonah**

Title: The effects of the fungal pathogen Batrachochytrium dendrobatidis (Bd) on amphibian hosts

Facilities: Current **BSM: Current**

Primary Reviewer: Steve R **Secondary Reviewer: Levi O**

- 10/12/15: Deferred by IBC, pending clarification of the method of biohazardous disposal.

14. BAF Number: 730-008 *Principal Investigator: Brayton, Kelly*
Title: Genomic analysis of Anaplasma marginale
Facilities: Expired *BSM: Expired*
Primary Reviewer: Steve R *Secondary Reviewer: Mike K*

- 10/26/15: Deferred by IBC, pending revision to the BAF.

15. BAF Number: 980-007 *Principal Investigator: Abu-Lail, Nehal*
Title: Nanoscale interactions between microbes and soil as well as microbes and antimicrobial compounds
Facilities: Current *BSM: Under review*
Primary Reviewer: Eric S *Secondary Reviewer: Phil B*

- 10/26/15: Deferred by IBC, pending revision to the BAF.
- 10/27/15: Revised BAF received and sent to BSO.

16. BAF Number: 1160-002 *Principal Investigator: Zhu, Meijun*
Title: Pathogen prevalence, host immune responses and their interaction as well as safety of foods
Facilities: Expired *BSM: Expired*
Primary Reviewer: Mike K *Secondary Reviewer: Levi O*

- 10/26/15: Deferred by IBC, pending revision to the BAF and approvals of the facilities and BSM.

- IX. Biosafety Program Update: none**
- X. Old Business: none**
- XI. New Business: none**
- XII. Bio-Incident Reports: none**
- XIII. Adjournment:**

Meeting adjourned at 13:35

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	ORA Director; Research Compliance
6.	Levi O'Loughlin	Biosafety Officer; Research Compliance
7.	Nathan Weller	Community Member; Pullman City Council
8.	Nina Woodford	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Hanu Pappu	Plant Pathology
2.	Steve Russell	Office of the Campus Vet
3.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Compliance; IBC Coordinator
2.	Richard Partain	USDA

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:07, with a quorum (7 of 11 members) present. All members and guests attended at the Pullman location, with the exception of Phil B, who joined via PolyCom from the Spokane Campus.

II. Announcements:

The new members, Nathan W and Nina W, were introduced to the board.

III. Minutes – November 16, 2015

Approve. The motion was proposed by Mike H and seconded by Mike K.
Total: 7 In favor: 7 Opposed: 0 **Motion Carried (7-0)**

IV. BSL – 2 BAFs

A. Renewals:

1. *BAF Number: 620-012* *Principal Investigator: Black, Margaret*
Title: Improving Suicide Genes for Cancer Gene Therapy Engineering Enzymes for Anti-tumor Suicide Gene Therapy
Facilities: Current *BSM: Current*

Primary Reviewer: **Eric S**

Secondary Reviewer: **Levi O**

During the discussion, Dubraska C arrived at the Pullman location (8 members).

Discussion:

The research methods described in Section 2 do not have sufficient detail. Additionally, there are mentions of potential future procedures, but these are also not described or included elsewhere in the BAF. In section 4, under NIH category III-E-1, the PI has indicated that the cells contain helper viruses. This is contradicted by Section 5. The IBC thought that there were no helper viruses. Also in Section 4, the hosts include “various mammalian cell lines.” The IBC did not have concern over this, but thought that it should reference Section 5, where these lines are listed.

Required Changes:

- Section 2A: Provide more details regarding your procedures.
- Section 2A: Remove mentions of future potential work. Only describe work that you will conduct upon approval. Additional work can be added via amendment.
- Section 4: Under III-E-1, mark ‘No’ to the question about helper viruses.
- Section 4: Direct the reader to Section 5 when listing “various mammalian cell lines” among the hosts.

Regarding the Section 2 changes, you may alternately revise to describe the future potential work as if you are currently conducting these procedures.

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the Assigned Reviewers. If the PI wants to use the alternative, the convened IBC will review the changes.

The motion was proposed by Eric S and seconded by Levi O.

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

V. BSL – 1 BAFs

A. Renewals:

1. BAF Number: 791-007

*Principal Investigator: **Xun, Luying***

*Title: **Biochemistry and Physiology of S-glutathionyl-(chloro)hydroquinone reductases***

*Facilities: **FR needed** BSM: **Update requested 12/2/15***

*Primary Reviewer: **Phil B***

*Secondary Reviewer **Mike K***

Discussion:

The only concerns were that the NIH category of rDNA use was not selected. The committee saw III-E-1 as representative of this rDNA work, and that the BAF should indicate use of cells other than K-12 or derivatives. These changes can be made administratively and need not delay approval.

Required Changes:

- Section 4: Indicate NIH category III-E-1 for rDNA use.
- Section 4: Indicate that the research does inject foreign DNA into cells other than E.coli k-12 or its derivatives.

Approve with the above changes, which can be done administratively. The motion was proposed by Mike K and seconded by Phil B.

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

B. Amendments:

1. **BAF Number: 1184-002** *Principal Investigator: Fuchs Lokensgard, Rita*
Title: AAV-induced expression of light-sensitive ion channels and DREADDs
Facilities: Current BSM: Current

Primary Reviewer: Levi O

Secondary Reviewer: Hanu P

Discussion:

The IBC did not think that the amendment form, by itself, was sufficient if the BSL was being changed from 1 to 2. However, CAV does not require BSL-2 containment. The changes can be approved without changing the BSL.

Required Changes:

- Omit the change in BSL.

Approve with the administrative change. The motion was proposed by Levi O and seconded by Eric S.

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

VI. **BAFs Approved in the Interim**

A. Administrative Approvals:

1. **BAF Number: 867-013** *Principal Investigator: Konkel, Michael*
Title: A novel approach to identify the virulence proteins secreted by Campylobacter jejuni

- 11/9/15: Amend to add new (BSL-1) organism to research received.
- 11/13/15: Amendment approved by BSO.

B. Deactivations:

1. **BAF Number: 922-007** *Principal Investigator: Vonwettstein, Dietrich*
Title: Barley Lines Expressing Lysozyme or Lactoferrin
 - 12/2/15: Request to allow to expire received.

VII. **Deferred BAFs**

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

- 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. **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.
 - 2/19/15: FRs requested from PI.
3. **BAF Number: 384-007** *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
4. **BAF Number: 1201-001** *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
5. **BAF Number: 1203-001** *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved

- 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
6. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
 - 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
 7. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 *BSM: Received 2/9*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
 - 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 8. *BAF Number: 1143-003* *Principal Investigator: Killinger, Karen*
Title: Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain
Facilities: Requested 2/17 *BSM: Requested 2/17*
Primary Reviewer: S. Russell *Secondary Reviewer: D. Diaz-Campos*
 - 2/23/15: Deferred by IBC, pending revision to the BAF and approval of the BSM and Facilities
 - 2/24/15: Response to comments received
 - 2/25/15: Facilities approved.
 - 5/29/15: PI response re-sent to reviewers.
 9. *BAF Number: 795-007* *Principal Investigator: Okubara, Patricia*
Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic
Facilities: Current *BSM: current*
Primary Reviewer: Linda T. *Secondary Reviewer: Hanu P.*
 - 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
 - 9/29/2015: BSM and facilities approved.
 10. *BAF Number: 1222-001* *Principal Investigator: Kunz, Hans*
Title: Ion Transporters of Plant Chloroplasts
Facilities: requested 5/6/15 *BSM: requested 5/6/15*
Primary Reviewer: Dubra C. *Secondary Reviewer: Hanu P.*
 - 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.
 11. *BAF Number: 1151-004* *Principal Investigator: Petrova, Adelina*
Title: Host-Insect Molecular Interactions
Facilities: Awaiting BSC cert. *BSM: Requested 7/15*
Primary Reviewer: Linda T. *Secondary Reviewer: Mike K.*
 - 7/27/15: deferred by IBC pending facility BSM/ECP approval.
 - 7/30/15: BSL-2 facility approved.

- 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.

12. BAF Number: 1231-001 *Principal Investigator: Winuthayanon, Wipawee*

Title: Analysis of estrogen and progesterone mechanisms of action in female reproductive tract

Facilities: Current BSM: Current

Primary Reviewer: Eric S Secondary Reviewer Steve R

- 10/12/15: deferred by IBC, pending revision to the BAF.
- 10/16/15: Revised BAF received.

13. BAF Number:1233-001 *Principal Investigator: Piovio-Scott, Jonah*

Title: The effects of the fungal pathogen Batrachochytrium dendrobatidis (Bd) on amphibian hosts

Facilities: Current BSM: Current

Primary Reviewer: Steve R Secondary Reviewer: Levi O

- 10/12/15: Deferred by IBC, pending clarification of the method of biohazardous disposal.

14. BAF Number: 730-008 *Principal Investigator: Brayton, Kelly*

Title: Genomic analysis of Anaplasma marginale

Facilities: Expired BSM: Expired

Primary Reviewer: Steve R Secondary Reviewer: Mike K

- 10/26/15: Deferred by IBC, pending revision to the BAF.

15. BAF Number: 980-007 *Principal Investigator: Abu-Lail, Nehal*

Title: Nanoscale interactions between microbes and soil as well as microbes and antimicrobial compounds

Facilities: Current BSM: Under review

Primary Reviewer: Eric S Secondary Reviewer: Phil B

- 10/26/15: Deferred by IBC, pending revision to the BAF.
- 10/27/15: Revised BAF received and sent to BSO.

16. BAF Number: 1160-002 *Principal Investigator: Zhu, Meijun*

Title: Pathogen prevalence, host immune responses and their interaction as well as safety of foods

Facilities: Expired BSM: Expired

Primary Reviewer: Mike K Secondary Reviewer: Levi O

- 10/26/15: Deferred by IBC, pending revision to the BAF and approvals of the facilities and BSM.

VIII. Adjournment

The meeting was adjourned at 13:40.

Prepared and submitted by  December 15, 2015.

WSU IBC Minutes
January 19, 2016

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	ORA Director; Research Assurances
6.	Linda Thomashow	USDA/ARS; Plant Pathology
7.	Nina Woodford	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Levi O'Loughlin	Biosafety Officer; Research Assurances
2.	Hanu Pappu	Plant Pathology
3.	Steve Russell	Office of the Campus Vet
4.	Nathan Weller	Community Member; Pullman City Council

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Assurances; IBC Coordinator
2.	Richard Partain	USDA

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:12, with a quorum (7 of 11 members) present. All members and guests attended at the Pullman location, with the exception of Phil B, who joined via PolyCom from the Spokane Campus.

II. Announcements:

- A. Levi O is in Puyallup with APHIS inspectors looking at transgenic poplar trees and ensuring that elevated river levels will not carry the GMO plants out of the containment area.
- B. There is still a high degree of frequency of descriptions of procedures/plan of work being inadequate. The committee would like to see an example posted on the IBC website or the BAF.

III. Minutes – November 16, 2015

Approve. The motion was proposed by Nina W and seconded by Mike K.

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

IV. BSL – 3 BAFs

- A. Renewals:

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

Primary Reviewer: Mike K *Secondary Reviewer: Levi O*

Discussion:

The only controverted issue was the inclusion of the animal facilities. The animals are only a source of tissue, no biological work will be performed with them. The animal facilities can be administratively removed and need not delay approval.

IBC Decision:

Approve with the administrative removal of animal facilities. The motion was proposed by Mike K and seconded by Linda T.

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

V. **BSL – 2 BAFs**

A. **Renewals:**

1. *BAF Number: 1146-002* *Principal Investigator: Shah, D*
Title: Patho-genomics and proteomics of enteric bacteria
Facilities: Current *BSM: Current*

Primary Reviewer: Eric S *Secondary Reviewer: Phil B*

Discussion:

The description of the work is brief, but sufficient. There needs to be more details regarding the source, handling and disposal of the animal and fecal samples. In Section 3, Enterobacter is erroneously listed as not being a human or animal hazard. In Section 4, the genes to be cloned and sources of DNA/RNA are too vague. One of the materials listed in Section 5, INT407, must also be listed amongst the agents in Section 3. Also in section 5, a material is labeled U917, but there is no description of this, nor could the reviewer find any, when researching in the course of the review.

Required Changes:

- Section 2A: Specify the source(s) of the fecal and animal samples, as well as the handling and disposal of the samples.
- Section 3: Change the hazard checklist information for Enterobacter to indicate that it is a hazard to humans and animals.
- Section 3: Add INT407 to the list of characterized agents and complete the hazard, immunization and biosafety level checklist for it.
- Section 4: Specify the genes to be cloned and the source(s) of DNA/RNA.
- Provide documents that describe U917.

IBC Decision:

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 Eric S and seconded by Phil B.
Total: 7 In Favor: 7 Opposed: 0 **Motion Carried (7-0)**

VI. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number:* **1239-001** *Principal Investigator:* **Peixoto, L**
Title: **Learning and sociability in Shank3 mutant mice**
Facilities: **Under Review** *BSM:* **Under Review**
Primary Reviewer: **Nina W** *Secondary Reviewer:* **Steve R**

Discussion:

This project does not involve the creation, or breeding, of transgenic animals. This work does not truly require IBC oversight, but the IBC Manual needs to be more definitive of this.

IBC Decision:

Approve. The motion was proposed by Eric S and seconded by Mike K.
Total: 7 In Favor: 7 Opposed: 0 **Motion Carried (7-0)**

2. *BAF Number:* **1240-001** *Principal Investigator:* **Ahring, B**
Title: **Development of new efficient fungal cell factories for advanced biofuel production**
Facilities: **Requested 1/8** *BSM:* **Requested 1/8**
Primary Reviewer: **Linda T** *Secondary Reviewer:* **Hanu P**

Discussion:

There are several typographic/administrative errors in Section 1 of the BAF. The description of the work does not describe the size of the fungus cultures. Additionally, the vector listed in Section 4 does not appear to be sufficient to conduct this work.

Required Changes:

- Section 1: Check “Initial Submittal,” Correct the version date to 2016, Add the PI’s WSU ID number, Complete the personnel table.
- Section 2: Revise the Plan of Work to specify the amount of fungi cultures.
- Section 4: Specify all of the vectors used in this research.

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 Linda T and seconded by Eric S.

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

B. Renewals:

1. *BAF Number:* **847-006** *Principal Investigator:* **Vonwettstein, D**
Title: **Transformation of microspores for generating transgenic wheat (Triticum aestivum L.) and barley (Hordeum vulgare)**
Facilities: **Current** *BSM:* **Current**

Primary Reviewer: **Hanu P**

Secondary Reviewer: **Linda T**

Discussion:

The major concern was the inclusion of flavobacterium in the study materials. If only DNA is used, there is no problem. However, if the entire bacterium is involved, the research is radically changed, and the BAF will need to be re-submitted at BSL-2 and include Section 3 (Infectious Agent use). Additionally, Section 6 is not clear if some plants are autoclaved and some are composted, or if plants are autoclaved and then composted.

Required Changes:

- Clarify if the genetic engineering of Flavobacterium meningosepticum involves only DNA or the entire bacteria.
- By checking both Steam (autoclave) and Composting, did you mean that plants will be autoclaved and then composted?

IBC Decision:

Defer, pending clarification of the above questions. The BAF may be approved by the BSO if only DNA is used. If not, the BSO will assist the PI to revise and resubmit the BAF. The motion was proposed by Linda T and seconded by Eric S.

Total: 7 In Favor: 7 Opposed: 0 Motion Carried (7-0)

2. *BAF Number: 953-005* *Principal Investigator: Dong, W*

Title: Kinetic of Cardiac Myofilament Activation

Facilities: Current BSM: Current

Primary Reviewer: Dubra D

Secondary Reviewer: Eric S

Discussion:

When asked to describe the goals and aims of the research and plan of work, the PI provided a grant proposal. In section 4, the question asking for the nature of inserted DNA sequences was not answered properly. It should be noted that the BAF was submitted on the 2012 pdf form; the current form does not ask this question. The IBC Coordinator will transfer the information to the current form.

Required Changes:

- Section 2: Describe the goals and aims of the research and the plan of work.

IBC Decision:

Defer, pending revisions. The revisions will be reviewed by the convened IBC. The motion was proposed by Dubraska C and seconded by Eric S.

Total: 7 In Favor: 7 Opposed: 0 Motion Carried (7-0)

VII. BAFs Approved in the Interim

A. Deactivations:

1. *BAF Number: 1082-007* *Principal Investigator: Shah, D*
Title: Patho-genomics of pathogenic and non-pathogenic isolates of Salmonella spp.
 - 1/12/15: Will be absorbed by BAF #1146.
1. *BAF Number: 1099-006* *Principal Investigator: Shah, D*
Title: Gene knockouts and recombinant proteins
 - 1/12/15: Will be absorbed by BAF #1146.

VIII. Deferred BAFs

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*
 - 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
3. *BAF Number: 1201-001* *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
4. *BAF Number: 1203-001* *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.

- 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
5. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired BSM: None
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
6. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 BSM: Received 2/9
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
7. *BAF Number: 1143-003* *Principal Investigator: Killinger, Karen*
Title: Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain
Facilities: Requested 2/17 BSM: Requested 2/17
Primary Reviewer: S. Russell *Secondary Reviewer D. Diaz-Campos*
- 2/23/15: Deferred by IBC, pending revision to the BAF and approval of the BSM and Facilities
 - 2/24/15: Response to comments received
 - 2/25/15: Facilities approved.
 - 5/29/15: PI response re-sent to reviewers.
8. *BAF Number: 795-007* *Principal Investigator: Okubara, Patricia*
Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic
Facilities: Current BSM: current
Primary Reviewer: Linda T. *Secondary Reviewer: Hanu P.*
- 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
 - 9/29/2015: BSM and facilities approved.
9. *BAF Number: 1222-001* *Principal Investigator: Kunz, Hans*
Title: Ion Transporters of Plant Chloroplasts
Facilities: requested 5/6/15 BSM: requested 5/6/15
Primary Reviewer: Dubra C. *Secondary Reviewer: Hanu P.*
- 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.
10. *BAF Number: 1151-004* *Principal Investigator: Petrova, Adelina*

Title: **Host-Insect Molecular Interactions**

Facilities: **Awaiting BSC cert.** *BSM:* **Requested 7/15**

Primary Reviewer: **Linda T.** *Secondary Reviewer:* **Mike K.**

- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
- 7/30/15: BSL-2 facility approved.
- 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.

11. BAF Number: 1231-001 *Principal Investigator:* **Winuthayanon, Wipawee**

Title: **Analysis of estrogen and progesterone mechanisms of action in female reproductive tract**

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

Primary Reviewer: **Eric S** *Secondary Reviewer:* **Steve R**

- 10/12/15: deferred by IBC, pending revision to the BAF.
- 10/16/15: Revised BAF received.

12. BAF Number: 1233-001 *Principal Investigator:* **Piovia-Scott, Jonah**

Title: **The effects of the fungal pathogen *Batrachochytrium dendrobatidis* (Bd) on amphibian hosts**

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

Primary Reviewer: **Steve R** *Secondary Reviewer:* **Levi O**

- 10/12/15: Deferred by IBC, pending clarification of the method of biohazardous disposal.

13. BAF Number: 730-008 *Principal Investigator:* **Brayton, Kelly**

Title: **Genomic analysis of *Anaplasma marginale***

Facilities: **Expired** *BSM:* **Expired**

Primary Reviewer: **Steve R** *Secondary Reviewer:* **Mike K**

- 10/26/15: Deferred by IBC, pending revision to the BAF.

14. BAF Number: 980-007 *Principal Investigator:* **Abu-Lail, Nehal**

Title: **Nanoscale interactions between microbes and soil as well as microbes and antimicrobial compounds**

Facilities: **Current** *BSM:* **Under review**

Primary Reviewer: **Eric S** *Secondary Reviewer:* **Phil B**

- 10/26/15: Deferred by IBC, pending revision to the BAF.
- 10/27/15: Revised BAF received and sent to BSO.

15. BAF Number: 1160-002 *Principal Investigator:* **Zhu, Meijun**

Title: **Pathogen prevalence, host immune responses and their interaction as well as safety of foods**

Facilities: **Expired** *BSM:* **Expired**

Primary Reviewer: **Mike K** *Secondary Reviewer:* **Levi O**

- 10/26/15: Deferred by IBC, pending revision to the BAF and approvals of the facilities and BSM.

IX. Adjournment

The meeting adjourned at 13:55.

Respectfully prepared and submitted by , 1/20/2016

WSU IBC Minutes
February 16, 2016

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	ORA Director; Research Assurances
6.	Levi O'Loughlin	Biosafety Officer; Research Assurances
7.	Hanu Pappu	Plant Pathology
8.	Steve Russell	Office of the Campus Vet
9.	Nathan Weller	Community Member; Pullman City Council
10.	Nina Woodford	Office of the Campus Vet

IBC Members Absent:

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

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Assurances; IBC Coordinator
2.	Laura Lavine	USDA/ARC; Entomology

* Arrived after the Call To Order.

I. Call to Order:

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

II. Announcements:

- A. The CDC and APHIS inspected the Select Agent Program last week. They issued a good report upon exit.
- B. Levi O has prepared an example of a properly completed BAF.

Invited Guest Laura L arrived at 13:14. Mike K took a few moments to introduce her to the IBC.

III. Minutes – January 19, 2016

Approve. The motion was proposed by Levi O, and seconded by Nathan W.

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

IV. BSL – 2 BAFs

A. Renewals:

- 1. *BAF Number: 825-009* *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:* **Current**

Primary Reviewer: **Eric S** *Secondary Reviewer:* **Nina W**

Discussion:

The committee was unclear on a number of things, such as whether cattle would be inoculated with the wild-type or mutant BCG, whether the Davis lab created the mutants (and therefore engage in rDNA work) and whether this mutant was USDA approved. As this was a renewal, the committee felt that these concerns may have been expressed, and addressed before.

IBC Decision:

Defer, pending review of previous iterations of the BAF and meeting minutes from prior reviews. This may require changes to the BAF. The BAF may be approved when the review and any subsequent changes are completed, to the satisfaction of the Assigned Reviewers. The motion was proposed by Eric S and seconded by Mike K.

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

2. BAF Number: 1003-005 Principal Investigator: Sischo, William

Title: Emergence of Zoonotic Food and Water-Borne MDR-Salmonella, E coli, Campylobacter, and Cryptosporidia

Facilities: **Assigned to ORA 1.29** *BSM:* **Requested 1.29**

Primary Reviewer: **Dubra D** *Secondary Reviewer:* **Phil B**

Discussion:

The committee was unclear on what would be shipped from Uganda, whole samples or isolates. Additionally, the committee wanted all samples, not just isolates that were positive for bacteria, to be handled at BSL-2 and all transport between facilities to be in double containment.

Required Changes:

- Section 2: Specify what materials will be received from Uganda.
- Section 3.3: Revise to indicate that all samples and isolates will be contained at BSL-2.
- Section 3.3: Revise to indicate that all personnel will be offered the vaccine before beginning work.
- Section 3.4: Revise to indicate that all samples will be moved in double-contained, leak proof containers.

IBC Decision:

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 Dubraska D and seconded by Phil B.

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

B. Amendments:

1. *BAF Number: 1231-003* *Principal Investigator: Winuthayanon, Wipawee (Joy)*
Title: Analysis of estrogen and progesterone mechanisms of action in female reproductive tract
Facilities: Current *BSM: Current*

Primary Reviewer: Steve R *Secondary Reviewer: Levi O*

Discussion:

No member expressed concern or barrier to approval.

IBC Decision:

Approve. The motion was proposed by Steve R and seconded by Nina W.

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

2. *BAF Number: 1205-003* *Principal Investigator: Roberts, Steven*
Title: Environmentally-modulated cytosine deamination in genome instability and cancer
Facilities: Current *BSM: Update requested 2/4*

Primary Reviewer: Mike K *Secondary Reviewer: Dubra D*

Discussion:

The only issue was that the PI had been requested to adopt BSL-2+ procedures. The BSO has been assisting to develop a BSL-2+ BSM.

IBC Decision:

Defer, pending approval of the BSL-2+ BSM. The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Mike K and seconded by Dubraska D.

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

V. **BSL – 1 BAFs**

A. New Protocols:

1. *BAF Number: 1241-001* *Principal Investigator: Szentirmai, Eva*
Title: Characterizing the role of the nucleus of the solitary tract in the brainstem sleep-promoting circuit
Facilities: Current *BSM: Current*
Primary Reviewer: Phil B *Secondary Reviewer: Nina W*

Discussion:

The only issue was that, in Section 4, the host question needs to indicate that the research does inject foreign DNA into a host other than E.coli K-12 or derivative. This can be completed administratively and need not delay approval.

Required Changes:

- Section 4: Administratively change the response to the host question from ‘No’ to ‘Yes.’
- Section 4: List **A2 NST cells as the hosts for rDNA.**

IBC Decision:

Approve with the administrative change. The motion was proposed by member and seconded by member.

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

2. *BAF Number: 1242-001* *Principal Investigator: Harrison, Joseph*
Title: Use of Aspergillus Niger for Production of Oxalic Acid
Facilities: Current *BSM: Current*
Primary Reviewer: Linda T *Secondary Reviewer: Mike K*

Discussion:

The only concern was the conditions under which *A. niger* will be grown.

Required Changes:

- Section 2A: Revise to clarify that *A. niger* will be grown in Erlenmeyer Flasks, under aseptic conditions.

IBC Decision:

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 Mike K and seconded by Dubraska D.

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

B. Renewals:

1. *BAF Number: 953-005* *Principal Investigator: Dong, W*
Title: Kinetic of Cardiac Myofilament Activation
Facilities: Current *BSM: Current*
Primary Reviewer: Dubra D *Secondary Reviewer: Eric S*

Discussion:

No member expressed concern or barrier to approval.

IBC Decision:

Approve. The motion was proposed by Dubraska D and seconded by Eric S.

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

2. *BAF Number: 883-007* *Principal Investigator: Lange, Bernd*
Title: Regulation of Isoprenoid Biosynthesis in Plants
Facilities: Requested 1/28 *BSM: Under review*
Primary Reviewer: Hanu P *Secondary Reviewer: Eric S*

Discussion:

The BAF was submitted on a form that is no longer in use and does not collect the information that the committee currently desires. The PI was sent the current form on 2/4, but has not responded.

Required Changes:

- The project must be resubmitted on the current BAF.

IBC Decision:

Defer, pending resubmission of the BAF. The BAF may be approved when these conditions are completed, to the satisfaction of the Assigned Reviewers. The motion was proposed by Eric S and seconded by Hanu P.

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

3. *BAF Number: 927-005* *Principal Investigator: Vonwettstein, Dietrich*

*Title: **Betaglucanase, Chitinase Expression in Barley***

*Facilities: **Requested 1/28** *BSM: **Current****

*Primary Reviewer: **Linda T***

*Secondary Reviewer: **Levi O***

Discussion:

No member expressed concern or barrier to approval.

IBC Decision:

Approve. The motion was proposed by Levi O and seconded by Eric S.

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

4. *BAF Number: 1101-003* *Principal Investigator: **Pavek, Mark***

*Title: **Potato Variety Research***

*Facilities: **N/A** *BSM: **Under Review****

*Primary Reviewer: **Hanu P***

*Secondary Reviewer: **Levi O***

Discussion:

The nature of the genetic modifications to the potatoes was unclear and the APHIS permit was not on file.

Required Changes:

- Clarify the nature of the modifications to the potatoes (stress tolerance, disease resistance, etc.).
- Submit your current APHIS permit.

IBC Decision:

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 Levi O and seconded by Hanu P.

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

VI. BAFs Approved in the Interim

A. Administrative Approvals:

1. *BAF Number: 1225-002* *Principal Investigator: Tanner, Bertrand*
Title: Cardiac and Skeletal Muscle Kinetics
 - 2/2/16: Amendment to add new cloning vector received and approved by BSO.
2. *BAF Number: 1177-005* *Principal Investigator: Hardy, Michele*
Title: Molecular biology of rotavirus replication and immune responses to enteric infection
 - 2/3/16: Amendment to change personnel and ad new bacterial agent received and approved by BSO.
3. *BAF Number: 1215-003* *Principal Investigator: Goodman, Alan*
Title: Conserved Immune Response to Sensing Cytosolic DNA
 - 2/9/16: Amendment approved by BSO

B. Other Approvals:

1. *BAF Number: 1224-001* *Principal Investigator: Sablani, Shyam*
Title: Oxygen Stress on Growth and Survival of Microorganisms in Pasteurized Foods
Facilities: Current BSM: requested 7/1/15
 - 6/29/15: Approve, pending approval of the BSM.
 - 1/21/16: BSM received and sent for review.
 - 1/27/16: BSM approved; BAF approved.

C. Deactivations:

1. *BAF Number: 1068-004* *Principal Investigator: Schwartz, Elissa*
Title: Studies of Cell Growth and Immunological Activity
 - 2/1/16: TBD Request received.
2. *BAF Number: 1240-001* *Principal Investigator: Ahring, B*
Title: Development of new efficient fungal cell factories for advanced biofuel production
Facilities: Requested 1/8 *BSM: Requested 1/8*
Primary Reviewer: Linda T *Secondary Reviewer: Hanu P*
 - 1/19/16: deferred by IBC, pending BAF revision and approval of the BSM and facilities.
 - 1/20/16: Revised BAF received. BSM and facility approved.
 - 1/22/16: Linda T has expressed approval of the BAF.
 - 2/4/16: Hanu P indicated approval. BAF approved.

VII. Deferred BAFs

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*

- 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
3. *BAF Number: 1201-001* *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
4. *BAF Number: 1203-001* *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
- 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
5. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.

6. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 BSM: Received 2/9
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
7. *BAF Number: 1143-003* *Principal Investigator: Killinger, Karen*
Title: Isolation and enumeration of foodborne pathogens and indicator organisms through the food chain
Facilities: Requested 2/17 *BSM: Requested 2/17*
Primary Reviewer: S. Russell *Secondary Reviewer D. Diaz-Campos*
- 2/23/15: Deferred by IBC, pending revision to the BAF and approval of the BSM and Facilities
 - 2/24/15: Response to comments received
 - 2/25/15: Facilities approved.
 - 5/29/15: PI response re-sent to reviewers.
8. *BAF Number: 795-007* *Principal Investigator: Okubara, Patricia*
Title: Development of Promoters and Antifungal Gene Constructs for Model and Crop Plants to Combat Root Necrotrophic
Facilities: Current BSM: current
Primary Reviewer: Linda T. *Secondary Reviewer: Hanu P.*
- 3/30/15: deferred by IBC, pending BSM and facility approval (unless reviewers object). BSO to grant approval.
 - 9/29/2015: BSM and facilities approved.
9. *BAF Number: 1222-001* *Principal Investigator: Kunz, Hans*
Title: Ion Transporters of Plant Chloroplasts
Facilities: requested 5/6/15 BSM: requested 5/6/15
Primary Reviewer: Dubra C. *Secondary Reviewer: Hanu P.*
- 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.
10. *BAF Number: 1151-004* *Principal Investigator: Petrova, Adelina*
Title: Host-Insect Molecular Interactions
Facilities: Awaiting BSC cert. *BSM: Requested 7/15*
Primary Reviewer: Linda T. *Secondary Reviewer: Mike K.*
- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
 - 7/30/15: BSL-2 facility approved.
 - 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.
11. *BAF Number: 1231-001* *Principal Investigator: Winuthayanon, Wipawee*
Title: Analysis of estrogen and progesterone mechanisms of action in female reproductive tract
Facilities: Current *BSM: Current*
Primary Reviewer: Eric S *Secondary Reviewer Steve R*
- 10/12/15: deferred by IBC, pending revision to the BAF.
 - 10/16/15: Revised BAF received.
12. *BAF Number: 1233-001* *Principal Investigator: Piovia-Scott, Jonah*

Title: **The effects of the fungal pathogen *Batrachochytrium dendrobatidis* (Bd) on amphibian hosts**

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

Primary Reviewer: **Steve R** *Secondary Reviewer:* **Levi O**

- 10/12/15: Deferred by IBC, pending clarification of the method of biohazardous disposal.

13. *BAF Number:* **730-008** *Principal Investigator:* **Brayton, Kelly**

Title: **Genomic analysis of *Anaplasma marginale***

Facilities: **Expired** *BSM:* **Expired**

Primary Reviewer: **Steve R** *Secondary Reviewer:* **Mike K**

- 10/26/15: Deferred by IBC, pending revision to the BAF.

14. *BAF Number:* **980-007** *Principal Investigator:* **Abu-Lail, Nehal**

Title: **Nanoscale interactions between microbes and soil as well as microbes and antimicrobial compounds**

Facilities: **Current** *BSM:* **Under review**

Primary Reviewer: **Eric S** *Secondary Reviewer:* **Phil B**

- **10/26/15:** Deferred by IBC, pending revision to the BAF.
- **10/27/15:** Revised BAF received and sent to BSO.

15. *BAF Number:* **1160-002** *Principal Investigator:* **Zhu, Meijun**

Title: **Pathogen prevalence, host immune responses and their interaction as well as safety of foods**

Facilities: **Expired** *BSM:* **Expired**

Primary Reviewer: **Mike K** *Secondary Reviewer:* **Levi O**

- **10/26/15:** Deferred by IBC, pending revision to the BAF and approvals of the facilities and BSM.

16. *BAF Number:* **1146-002** *Principal Investigator:* **Shah, D**

Title: **Patho-genomics and proteomics of enteric bacteria**

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

Primary Reviewer: **Eric S** *Secondary Reviewer:* **Phil B**

- 1/19/16: Deferred by IBC, pending BAF revisions (assigned reviewers).

17. *BAF Number:* **847-006** *Principal Investigator:* **Vonwettstein, D**

Title: **Transformation of microspores for generating transgenic wheat (*Triticum aestivum* L.) and barley (*Hordeum vulgare*)**

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

Primary Reviewer: **Hanu P** *Secondary Reviewer:* **Linda T**

- 1/19/16: Deferred by IBC, pending clarification of bacterial use.
- 1/21/16: Response to comments received and sent to BSO.

18. *BAF Number:* **953-005** *Principal Investigator:* **Dong, W**

Title: **Kinetic of Cardiac Myofilament Activation**

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

Primary Reviewer: **Dubra D**

Secondary Reviewer: **Eric S**

- 1/19/16: BAF Deferred, pending transfer to current form and description of the work.
- 1/27/16: Information transferred to current BAF and sent to PI.

Dubraska D departed from the meeting. Quorum was maintained (9 members).

VIII. New Business

A. Alan Goodman has submitted an amendment to add Zika virus to his current BSL-2 project. The amendment was submitted the day before the meeting, but the PI has requested expedited review because the NSF is doing rapid response to grants for Zika virus. However, there were questions if his *drosophila* would be a reasonable model for the virus, which is mosquito vectored. The committee suggested that the PI could separate his cell line work from the arthropod work on separate BAFs. The BSO will approach the PI with this suggestion. The IBC wished to be careful and not act with undue haste on the review, in light of the potential for negative publicity. There is the possibility that a special meeting could be convened, in advance of the next one scheduled (3/22), in order to expedite this review.

IX. Adjournment

The meeting adjourned at 14:41.

WSU IBC Minutes
March 22, 2016

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Mike Kluzik	ORA Director; Research Assurances
3.	Levi O’Loughlin	Biosafety Officer; Research Assurances
4.	Steve Russell	Office of the Campus Vet
5.	Nathan Weller	Community Member; Pullman City Council
6.	Nina Woodford	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Diaz-Campos, Dubraska	College of Veterinary Medicine
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 Assurances; IBC Coordinator
2.	Mark Hubbard	USDA/ARC; Grant and Proposal Speciaslist
3.	Laura Lavine*	USDA/ARC; Entomology

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:10, with a quorum (6 of 11) of voting members present. All members and guests were at the Pullman location.

II. Minutes – January 19, 2016

Approve. The motion was proposed by Mike K and seconded by Nathan W.
Total: 6 In favor: 6 Opposed: 0 **Motion Carried (6-0)**

III. BSL – 1 BAFs

A. New Protocols:

1. **BAF Number: 1244-001** *Principal Investigator: Wisor, Jonathan*
Title: The study of Metabolism and Sleep in the Brains of Mice
Facilities: Current BSM: Current
Primary Reviewer: Steve R Secondary Reviewer: Mike K

Discussion:

Mike K verified that the only work that placed the research within the scope of the IBC was the use of the AAV as a vector. The only concern was that the BAF did not

indicate that foreign DNA was introduced into cells other than K-12 or derivatives; this can be rectified administratively, however, and need not delay approval.

Required Changes:

- Section 4: Administratively change the response to “The host into which I am introducing foreign DNA or RNA is a cell or organism other than E. coli K-12 or its derivatives” from ‘No’ to ‘Yes.’

IBC Decision:

Approve with the administrative change to section 4. The motion was proposed by Steve R and seconded by Levi O.

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

B. Renewals:

1. **BAF Number: 1165-002** *Principal Investigator: Marsh, Susan*

Title: Epigenetic Regulation of Hypertrophy in Cardiomyocytes

Facilities: Requested 3/3 *BSM: Requested 3/3*

Primary Reviewer: Dubraska D *Secondary Reviewer: Levi O*

Discussion:

There were no concerns or controverted issues regarding the BAF. The PI has not had the opportunity to perform the facility reviews or complete the biosafety manual.

IBC Decision:

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 Levi O and seconded by Nina W.

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

IV. **BSL – 2 BAFs**

A. New Protocols:

1. **BAF Number: 1243-001** *Principal Investigator: Goodman, Alan*

Title: Identifying host genetic determinants of pathogenesis in Drosophila

Facilities: Current *BSM: Current*

Primary Reviewer: Eric S

Secondary Reviewer: Phil B.

Laura L. arrived at 13:33, during the discussion.

Discussion:

The Goals and Aims of the research and Plan of Work in the BAF appear to have been copied and pasted from the grant proposal, and do not address the methods that are employed to prevent exposure and loss of containment. The infectious agent table incorrectly claims that these strains of Kunjin virus and Coxiella burnetti (9-mile Phase II Clone 4) are not human hazards, per Eric S’s background research. When addressing transportation procedures, the BAF is not definitive enough that infected flies will not be moved until deactivated. As the research does involve “Experiments

involving the use of infectious DNA or RNA viruses,” Sub-category D-3 should also be selected (indicating that the experiments will NOT increase either pathogenicity or expansion of the host range). Levi O has also looked at the Arthropod Containment Guidelines (ACG), which normally exclude drosophila, but the agents involved in this research require arthropod containment level 2. Containment measures include white lab coats only and a double set of doors between the lab space and public areas, creating a ‘grey’ zone. The PI also must add accidental release reporting procedures. The PI can also order mutant flies that are easily identifiable (.e. white eyes). The PI must meet with a sub-committee of the IBC to facilitate the changes.

Required Changes:

- Section 2: Revise the Goals and Plan of work to include your procedures in place to provide for containment and minimize the potential for exposure (such as puncture proof gloves).
- Section 3: Revise the agent table to indicate that the Kunjin virus and Coxiella burnetti are human hazards.
- Section 3.4: Revise to clearly indicate that live, infected flies will not be moved from 140D.
- Section 4: check sub-category D-3 (answering ‘No’ to both follow-up questions).

IBC Decision:

Defer, pending discussion between the PI and subcommittee (Eric S, Nathan W, Mike K and Levi O) and 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 Eric S and seconded by Nathan W.

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

V. BAFs Approved in the Interim

A. Administrative Approvals:

1. *BAF Number: 1205-004 Principal Investigator: Roberts, Steven*
Title: Environmentally-modulated cytosine deamination in genome instability and cancer
 - 2/24/16: Amendment to add tumor cells approved by BSO.
2. *BAF Number: 1176-003 Principal Investigator: Omsland, Anders*
Title: Coxiella and Chlamydia Metabolism, Physiology and ex vivo Virulence
 - 2/17/16: Amend to add the plant pathogen (Candidatus) Liberibacter asiaticus to the approved agents approved by BSO.
3. *BAF Number: 1231-004 Principal Investigator: Winuthayanon, Wipawee “Joy”*
Title: Analysis of estrogen and progesterone mechanisms of action in female reproductive tract
 - 2/29/16: Personnel amendment approved by coordinator.
4. *BAF Number: 1113-005 Principal Investigator: Ueti, Massaro*

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

- 3/9/16: Facilities amendment received, adding FMIC.
- 3/10/16: Amendment approved by BSO and coordinator.

B. Other Approvals:

1. *BAF Number: 1205-003* *Principal Investigator: Roberts, Steven*
Title: Environmentally-modulated cytosine deamination in genome instability and cancer

- 2/16/16: deferred by IBC, pending approval of the BSM.
- 2/19/16: BSM approved (BSL-2+); BAF approved.

2. *BAF Number: 1242-001* *Principal Investigator: Harrison, Joseph*
Title: Use of Aspergillus Niger for Production of Oxalic Acid
Facilities: Current *BSM: Current*
Primary Reviewer: Linda T *Secondary Reviewer: Mike K*

- 2/16/16: deferred by IBC, pending revision to the BAF.
- 2/22/16: Revised BAF received. BAF approved.

3. *BAF Number: 1003-005* *Principal Investigator: Sischo, William*
Title: Emergence of Zoonotic Food and Water-Borne MDR-Salmonella, E coli, Campylobacter, and Cryptosporidia
Facilities: Assigned to ORA 1.29 *BSM: Requested 1.29*
Primary Reviewer: Dubra D *Secondary Reviewer: Phil B*

- 2/16/16: deferred by IBC, pending revision to the BAF.
- 2/22/16: revisions received
- 2/25/16: Facilities approved by BSO.
- 3/21/16: BAF approved

4. *BAF Number: 1101-003* *Principal Investigator: Pavek, Mark*
Title: Potato Variety Research
Facilities: N/A *BSM: Current*
Primary Reviewer: Hanu *Secondary Reviewer: Levi O*

- 2/16/16: deferred by IBC, pending clarifications regarding the potatoes and submission of the APHIS permit.
- 3/8/16: revised BAF received and sent to reviewers.
- 3/21/16: BAF Approved.

C. Deactivations:

1. *BAF Number: 1100* *Principal Investigator: Stanton, James*
Title: Identifying Cofactors for Prion Accumulation
2. *BAF Number: 1102* *Principal Investigator: Ye, Ping*
Title: Elucidating Functional and Regulatory Pathways Controlling Meiotic Entry in Animals

VI. Deferred BAFs

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*
 - 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
3. *BAF Number: 1201-001* *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
4. *BAF Number: 1203-001* *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
5. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*

- Primary Reviewer: M. Kluzik* *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
6. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 *BSM: Received 2/9*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
7. *BAF Number: 1151-004* *Principal Investigator: Petrova, Adelina*
Title: Host-Insect Molecular Interactions
Facilities: Awaiting BSC cert. *BSM: Requested 7/15*
Primary Reviewer: Linda T. *Secondary Reviewer: Mike K.*
- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
 - 7/30/15: BSL-2 facility approved.
 - 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.
8. *BAF Number: 825-009* *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: Current*
Primary Reviewer: Eric S *Secondary Reviewer: Nina W*
- 2/16/16: deferred by IBC, pending comparison with prior iterations and IBC notes.
 - 3/21/16: Facilities approved.
9. *BAF Number: 883-007* *Principal Investigator: Lange, Bernd*
Title: Regulation of Isoprenoid Biosynthesis in Plants
Facilities: Requested 1/28 *BSM: Under review*
Primary Reviewer: Hanu P *Secondary Reviewer: Eric S*
- 2/16/16: deferred by IBC, pending resubmission on current version of the BAF.
 - 2/25/16: PI has submitted inspection reports for the plant and non-plant rooms. Inspections sent to BSO, BAF to assigned reviewers.

VII. Adjournment

The meeting was adjourned at 13:53.

WSU IBC Minutes
April 19, 2016

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Mike Kluzik	ORA Director; Research Assurances
3.	Levi O'Loughlin	Biosafety Officer; Research Assurances
4.	Nathan Weller	Community Member; Pullman City Council
5.	Nina Woodford	Office of the Campus Vet
6.	Phillip Butterfield	College of Nursing
7.	Laura Lavine*	USDA/ARC; Entomology
8.	Mike Heston	Community Member; Pullman Fire Department
9.	Diaz-Campos, Dubraska	College of Veterinary Medicine

IBC Members Absent:

	Member	Affiliation/Role
1.	Hanu Pappu	Plant Pathology
2.	Linda Thomashow	USDA/ARS; Plant Pathology
3.	Steve Russell	Office of the Campus Vet

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Richard Partain	USDA

* Departed at 1:55. Quorum was maintained.

I. Call to Order:

The meeting was called to order at 13:10, with a quorum (9 of 12) of voting members present. All members and guests were at the Pullman location with Phil B using AMS from Spokane.

II. Minutes – March 22, 2016

Approve. The motion was proposed by Mike H. and seconded by Nathan W.
Total: 9 In favor: 9 Opposed: 0 **Motion Carried (9-0)**

III. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number: 1246-001* *Principal Investigator: Gleason, Cynthia*
Title: Plant parasitic nematode-plant interactions
Facilities: Needed *BSM: Needed*
Primary Reviewer: Linda T *Secondary Reviewer: Hanu P*

Discussion:

There was little discussion as it was determined that expertise in plant pathogens is needed for the protocol.

Required Changes:

- N/A

IBC Decision:

Defer till next meeting. The motion was proposed by Eric S and seconded by Levi O.

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

B. Renewals:

1. *BAF Number: 992-006* *Principal Investigator: Kennedy, Ann C*
Title: Naturally Occurring Cheatgrass-Suppressive Bacteria in Rangeland Restoration
Facilities: Current *BSM: Current*
Primary Reviewer: Hanu P *Secondary Reviewer: Linda T*

Discussion:

There was little discussion as it was determined that expertise in plants is needed for the protocol.

Required Changes:

- N/A

IBC Decision:

Defer till next meeting. The motion was proposed by Eric S and seconded by Levi O.

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

IV. **BSL – 2 BAFs**

A. New Protocols:

1. *BAF Number: 1247-001* *Principal Investigator: Dieter, Brad*
Title: Serum Amyloid A in Diabetic Kidney Disease
Facilities: Needed *BSM: Needed*
Primary Reviewer: Phil B *Secondary Reviewer: Levi O*

Discussion:

The research uses transgenic mice to study serum amyloid A (SAA). Facilities and biosafety manual were not identified. Discussion of the lentiviral vector needs to include more detail.

Required Changes:

- Section 1: Complete the contact information on the form and identify training and experience of all individuals on the protocol.
- Section 2: Revise the Goals and Plan of work to include procedures to contain and to minimize the potential for exposure (aerosols) to the lentiviral vectors

(e.g. puncture-resistant gloves, biosafety cabinet), including injection into mice. Additionally, add information about the lentiviral vector including where it was procured (e.g., Genecopia), generation of vector, and any additional safety information. How do you plan to disinfect or sterilize surfaces and labware?

- Section 2G: Revise location of lab (all rooms) and vivarium facilities used for injections and housing animals. Are animals housed in ventilated racks for ABSL2 containment?
- Section 2H: Change answer to 'yes' for Transgenic Animals and complete section 7.
- Section 3: Indicate that lentiviral constructs are human hazards.
- Section 3.3: Change the time frame for mice to be moved to ABSL1 housing to "7 days after the bedding in the cage is changed following injection of the vector."
- Section 4: NIH category III-D, D-4 (No, No) should also be marked.
- Section 4: Check yes for the first question about cloning and yes for the last question introducing DNA into cells.
- Section 4: Complete the cloning section of the form, including description of the lentivirus, genes (i.e., SAA3), and the source of the DNA (e.g. PCR, IDT)

IBC Decision:

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 Levi O and seconded by Phil B.

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

2. **BAF Number: 1248-001** *Principal Investigator: Wayman, Gary*

Title: Viral expression of Proteins within the hippocampus

Facilities: Current BSM: Current

Primary Reviewer: Eric S

Secondary Reviewer: Dubra D

Discussion:

The researcher has experience and additional protocols using viral vectors in mice. This protocol focuses on PRV and HSV1 as vectors injected into animals to study drug relapse circuitry. The protocol lacked detail in Section 2, but most of this information was found in the remaining sections of the document. However, questions remained.

Required Changes:

- Section 2: Indicate the plan of use for HSV/PRV including vector preparation in the lab and injection into rodents. Indicate that the injections occur in a biosafety cabinet. Are viral constructs replication competent?
- Section 2G: Revise location of lab (all rooms) and vivarium facilities used for injections and housing animals. Tyler indicated that viral aliquots and

handling occurs in the biosafety cabinet in 340 and animals are housed in G18 quarantine room.

- Section 3: Complete infectious hazard table to include PRV.
- Section 4: NIH category III-D, D-4 (No, No) should also be marked.
- Section 4: Check yes for the last question introducing DNA into cells.
- Section 4: Complete the cloning section of the form to include a brief description of the genes (i.e., immunity, metabolism, neurotransmitters)
- Attachment 1, 2, and 3 need to be incorporated into the biosafety manual.

IBC Decision:

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

The motion was proposed by Eric S and seconded by Dubra D.

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

B. Renewals:

1. **BAF Number: 1108-007** *Principal Investigator: Beyenal, Haluk*

Title: Multiple projects on biofilms

Facilities: Current BSM: Current

Primary Reviewer: Levi O

Secondary Reviewer: Eric S

Discussion:

The protocol has one of the most unique descriptions of research and focuses on biofilm-related wound infections using a flat plate open channel reactor. There was discussion of whether the unit would fit in a biosafety cabinet and it was determined that it would not.

Required Changes:

- Section 1: Complete training and experience of all individuals on the protocol (Anders and David).
- Section 2: Change the answer of select agents and toxins from ‘yes’ to ‘no.’ The FSAP removed *Candidatus liberobacter asiaticus* from the regulations on 11/17/2008.
- Section 2: Revise the Goals and Plan of work to include your procedures in place to provide for containment and minimize the potential for exposure (aerosols). Indicate risk assessment and mitigation measures for pathogens during live microscopy. Consider respirator use during cleaning of the unit and when manipulating pathogens outside of a biosafety cabinet or explain rationale for why this would not be necessary. Consider use of secondary containers in case of leaks from the chamber or waste container (additional bin) or explain why this is not necessary.
- Section 3: Indicate that *P. aeruginosa* is an animal hazard.
- Section 8: Remove the entire section (see section 2 change above).

IBC Decision:

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

The motion was proposed by Levi O and seconded by Eric S.

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

2. BAF Number: 1166-002 Principal Investigator: Court, Michael

Title: Pharmacogenomic studies of drug response using healthy human tissues, cell lines, and hepatocytes

Facilities: Current BSM: Current

Primary Reviewer: Dubra D Secondary Reviewer: Mike K

Discussion:

The protocol focuses on identifying genomic markers to help guide drug dosing. The plan of work could be improved, although most of the information was found in the following sections. Discussion of the lentiviral particles was misleading after speaking with the PI and will need to be revised.

Required Changes:

- Section 2: Further clarification is needed for the statement “addition of organic solvents and acid that will inactivate any potential infectious agent.” What are you using and how do you know this inactivates all agents? Revise the text to indicate.
- Section 2: Considering this protocol does not address work with lentiviral vectors, please remove reference to them.
- Section 2: Indicate ASAF number and the source of dog material for cloning (Section 4).
- Section 2G: Remove the last row of the list in the table. Since 2047 is approved for work at BSL2 it doesn’t need to be listed separately as BSL1.
- Section 4: Indicate that the vectors are BSL1. If they are indeed BSL2, please indicate the reasoning.

IBC Decision:

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

The motion was proposed by Dubra D and seconded by Mike K.

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

3. BAF Number: 1167-002 Principal Investigator: Lazarus, Philip

Title: Exemestane metabolic study for the personal treatment of breast cancer patients

Facilities: Current BSM: Current

Primary Reviewer: **Mike K**

Secondary Reviewer: **Phil B**

Discussion:

The protocol discusses investigation of the estrogen modulator EXE. It is a BSL2 protocol due to the use of HEK293 cells. More information is needed about research using human urine and plasma.

Required Changes:

- Section 2: Discuss the analysis of materials briefly. Where is this work occurring? The committee assumes there are enzyme kinetic and metabolite studies, and a brief discussion of the analysis of any inactivated biological materials should be included.
- Section 2: Discuss the use and source of urine and plasma and the risk assessment/precautions used to work with this material. Clarify WSU's role versus collaborator's role in regard to IRB (e.g., verify that WSU samples will be de-identified).
- Section 2H: Indicate cloning with recombinant DNA (mark yes).
- Section 3.5: Indicate how decontamination of analytical labware will be accomplished (e.g., chemical agents, autoclave).
- Section 4: Indicate that HEK293 cells are BSL2 in the cloning section.

IBC Decision:

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

The motion was proposed by Mike K and seconded by Phil B.

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

V. BAFs Approved in the Interim

A. Administrative Approvals:

1. BAF Number: 1176-004 Principal Investigator: Omsland, Anders

Title: Coxiella and Chlamydia Metabolism, Physiology and ex vivo Virulence

- 3/30/16: Personnel amendment approved by coordinator.

B. Other Approvals:

1. BAF Number: 1151-004 Principal Investigator: Petrova, Adelina

Title: Host-Insect Molecular Interactions

Facilities: Awaiting BSC cert. BSM: Requested 7/15

Primary Reviewer: Linda T. Secondary Reviewer: Mike K.

- 7/27/15: deferred by IBC pending facility BSM/ECP approval.
- 7/30/15: BSL-2 facility approved.
- 9/4/15: BSO sent follow-up email regarding FR and BSM/ECP.

- 3/17/16: BAF approved.

C. Deactivations: None

VI. Deferred BAFs

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*
 - 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. **BAF Number: 384-007** *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
3. **BAF Number: 1201-001** *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
4. **BAF Number: 1203-001** *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).
 - 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.

5. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
6. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 *BSM: Received 2/9*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
7. *BAF Number: 1222-001* *Principal Investigator: Kunz, Hans*
Title: Ion Transporters of Plant Chloroplasts
Facilities: requested 5/6/15 *BSM: requested 5/6/15*
Primary Reviewer: Dubra C. *Secondary Reviewer: Hanu P.*
- 6/29/15: Defer, pending completion of the required changes and approval of the facilities and BSM.
8. *BAF Number: 825-009* *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: Current*
Primary Reviewer: Eric S *Secondary Reviewer: Nina W*
- 2/16/16: deferred by IBC, pending comparison with prior iterations and IBC notes.
 - 3/21/16: Facilities approved.
9. *BAF Number: 883-007* *Principal Investigator: Lange, Bernd*
Title: Regulation of Isoprenoid Biosynthesis in Plants
Facilities: Requested 1/28 *BSM: Under review*
Primary Reviewer: Hanu P *Secondary Reviewer: Eric S*
- 2/16/16: deferred by IBC, pending resubmission on current version of the BAF.
 - 2/25/16: PI has submitted inspection reports for the plant and non-plant rooms. Inspections sent to BSO, BAF to assigned reviewers.
10. *BAF Number: 1243-001* *Principal Investigator: Goodman, Alan*
Title: Identifying host genetic determinants of pathogenesis in Drosophila
Facilities: Current *BSM: Current*
Primary Reviewer: Eric S *Secondary Reviewer: Phil B*

- 3/22/16: deferred by IBC, pending revision and subcommittee facility inspection.
- 3/31/16: Revised BAF received.
- 4/5/16: Subcommittee inspected the lab.
- 4/6/16: BAF revised again, based upon subcommittee inspection.

11. BAF Number: 1165-002 Principal Investigator: Marsh, Susan

Title: Epigenetic Regulation of Hypertrophy in Cardiomyocytes

Facilities: Requested 3/3 BSM: Requested 3/3

Primary Reviewer: Dubraska D Secondary Reviewer: Levi O

- 3/22/16: deferred by IBC, pending approved BSM and FR.
- 4/5/16: BSO requested facility checklists and BSM.

VII. Adjournment

The meeting was adjourned at 13:53, proposed by Mike H and seconded by Nathan W.

WSU IBC Minutes
May 24, 2016

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	ORA Director; Research Assurances
5.	Laura Lavine*	USDA/ARC; Entomology
6.	Levi O'Loughlin	Biosafety Officer; Research Assurances
7.	Steve Russell	Office of the Campus Vet
8.	Nina Woodford	Office of the Campus Vet

IBC Members Absent:

	Member	Affiliation/Role
1.	Mike Heston	Community Member; Pullman Fire Department
2.	Hanu Pappu	Plant Pathology
3.	Linda Thomashow	USDA/ARS; Plant Pathology
4.	Nathan Weller	Community Member; Pullman City Council

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Assurances; IBC Coordinator
2.	Richard Partain	USDA

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:19, with a quorum (7 of 11 members) present. All members and guests attended at the Pullman location, with the exception of Phil B, who joined via PolyCom from the Spokane Campus.

II. Announcements:

Dubraska D will be leaving WSU and will therefore be resigning from the IBC.

III. Minutes – January 19, 2016

Approve. The motion was proposed by Phil B and seconded by Dubra D.

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

IV. BSL – 3 BAFs

A. Renewals:

1. **BAF Number: 824-006** *Principal Investigator: Baszler, Tim*
Title: NAHLN:WA

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

Primary Reviewer: **Levi O**

Secondary Reviewer: **Mike K**

Laura L arrived at the meeting at 13:22 (8 members).

Discussion:

There were very few concerns. The BAF lists Highly Pathogenic Avian Influenza Virus and Exotic Newcastle Disease Virus, which are described as not being hazardous to humans

The text of the BAF indicated that the facility in Puyallup was included, but there is no BSL3 work being done there and this should be removed.

Required Changes:

- Section 3: Indicate that Highly Pathogenic Avian Influenza Virus and Exotic Newcastle Disease Virus are hazardous to humans, and provide the supporting data. This change can be made administratively by the ORA.
- Remove the indication that there will be a WADDL facility in Puyallup. This change can be made administratively by the ORA.

IBC Decision:

Approve with the administrative changes above. The motion was proposed by Mike K and seconded by Nina W.

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

V. BSL – 2 BAFs

A. Renewals:

1. BAF Number: 991-005 Principal Investigator: Li, Hong

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

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

Primary Reviewer: **Nina W**

Secondary Reviewer: **Dubra D**

Discussion:

There were three controverted issues. First, the BAF does not accurately identify the DNA/RNA as “a Risk Group 1 or 2 virus that infects eukaryotic cells and contains more than two-thirds of the viral genome.” Additionally, the option to use the In-Vessel Composter for disposal of inoculated animals must be removed (the IVC has been decommissioned). Finally, the BAF indicates that the alterations to the viral genome do not extend the host range, but the board wanted verification.

Required Changes:

- Section 3.6: Delete the option to use the In-Vessel Composter for disposal of animals.

- Section 4: Change the response to the eighth yes/no question (“Is a Risk Group 1 or 2 virus that infects eukaryotic cells and contains more than two-thirds of the viral genome”) to ‘Yes.’
- Clarify why the DNA/RNA to be cloned does not encode a control element that may extend the host range. Also submit any documentation supporting this contention.

IBC Decision:

Defer, pending completion of the required changes. The BAF may be approved when these conditions are completed, to the satisfaction of the Primary Reviewer and Chair. The motion was proposed by Eric S and seconded by Mike K.

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

VI. BSL – 1 BAFs

A. New Protocols:

1. BAF Number: 1246-001 Principal Investigator: Gleason, Cynthia

Title: Plant parasitic nematode-plant Interactions

Facilities: Under Review BSM: Current

Primary Reviewer: Linda T

Secondary Reviewer: Hanu P

Discussion:

The only problem the committee had was that the PI had not yet received the APHIS permit to import the nematodes. However, the rest of the research can be approved, and the nematodes added by amendment after the permit is obtained.

Required Changes:

- Remove the procedures that involve nematodes until the permit is granted. This change can be performed administratively.

IBC Decision:

Approve with the administrative change. The motion was proposed by Eric S and seconded by Levi O.

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

2. BAF Number: 1249-001 Principal Investigator: Kelley, Joanna

Title: The role of SLC24A5 in rainbow trout color variation

Facilities: Under Review BSM: Current

Primary Reviewer: Steve R

Secondary Reviewer: Eric S

Discussion:

The board was not clear if the PI was keeping a stock of the fish, or if all would be euthanized and incinerated at the completion of this research. Additionally, there is a facility checklist that is specific to aquaculture that would be more appropriate.

Required Changes:

- Clarify if all fish will be euthanized and incinerated at the completion of this research, or if living specimens will be retained. If so, describe for what purpose.
- Complete and submit the aquaculture facility inspection checklist.

IBC Decision:

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

The BAF may be approved when these conditions are completed, to the satisfaction of the BSO. The motion was proposed by Mike K and seconded by Eric S.

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

B. Renewals:

1. **BAF Number: 992-006** *Principal Investigator: Kennedy, Ann C*
Title: Naturally Occurring Cheatgrass-Suppressive Bacteria in Rangeland Restoration
Facilities: Current BSM: Current

Primary Reviewer: Hanu P

Secondary Reviewer: Linda T

Discussion:

There were no concerns or controverted issues.

IBC Decision:

Approve. The motion was proposed by Mike K and seconded by Levi O.

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

VII. BAFs Approved in the Interim

A. Administrative Approvals:

1. **BAF Number: 1160-003** *Principal Investigator: Zhu, Meijun*
Title: Pathogen prevalence, host immune responses and their interaction as well as safety of foods

- 4/6/16: Personnel amendment approved by coordinator.

B. Other Approvals:

1. **BAF Number: 1243-001** *Principal Investigator: Goodman, Alan*
Title: Identifying host genetic determinants of pathogenesis in Drosophila
Facilities: Current BSM: Current
Primary Reviewer: Eric S Secondary Reviewer: Phil B

- 3/22/16: deferred by IBC, pending revision and subcommittee facility inspection.
- 3/31/16: Revised BAF received.

- 4/5/16: Subcommittee inspected the lab.
- 4/6/16: BAF revised again, based upon subcommittee inspection.
- 4/27/16: Arthropod Containment Level (ACL) confirmed by CDC.
- 5/19/16: Revisions approved by reviewers. BAF approved.

C. Deactivations:

1. *BAF Number: 1169* *Principal Investigator: Fox, Lawrence*
Title: Teat disinfectant efficacy against common mastitis pathogen types using an excised teat model: A test of 4 different products

VIII. Deferred BAFs

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*
 - 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).
 - 2/12/15: comments re-sent, along with FR and BSM request.
2. *BAF Number: 384-007* *Principal Investigator: Okita, Thomas*
Title: Studies on RNA Localization and Starch Regulation in Plants
Facilities: Requested 8.27 *BSM: Under Review (9.9)*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 9/22/14: deferred by IBC, pending revision. Revisions to be evaluated by BSO.
 - 9/23/14: response to comments received and sent to BSO.
 - 2/20/15: BAF and BSM forwarded to BSO. FR checklists sent to PI.
3. *BAF Number: 1201-001* *Principal Investigator: Glawe, Dean*
Title: Host specificity of powdery mildew
Facilities: Requested 10.15 *BSM: Requested 10.15*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 10/27/14: deferred by IBC, pending revision BAF (specify facilities, transport procedures, and completion of Section 4), and approval of the facilities and biosafety manual.
 - 2/20/15: responses regarding coverage by another BAF and local presence of the agent forwarded to BSO.
4. *BAF Number: 1203-001* *Principal Investigator: Smertenko, Andrii*
Title: Identification of Novel Components of Cell Wall Synthesis Machinery
Facilities: Requested 11.7 *BSM: Requested 11.7*
Primary Reviewer: L. Thomashow *Secondary Reviewer: H. Pappu*
 - 12/15/14: deferred by IBC, pending revision to the BAF and approval of the facilities and Biosafety Manual (assigned reviewers and BSO).

- 12/16/14: Abstract received.
 - 12/18/14: Experience/training requested again.
 - 1/5/15: Updated BAF received and sent to Reviewers/BSO.
 - 1/29/15: Approval received from IBC members.
 - 2/25/15: BSM and FRs re-requested of PI.
 - 3/4/15: BSM and FRs received and sent to BSO. Facilities approved
 - 3/19/15: completed BSM requested, as the one received 3/4 was insufficient.
5. *BAF Number: 1211-001* *Principal Investigator: Vogel, Kara*
Title: Zebrafish research
Facilities: Expired *BSM: None*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
 - 4/28/15: Revised BAF received. BSO sent some further questions about foreign DNA and PI responded that no foreign DNA is used.
6. *BAF Number: 1141-002* *Principal Investigator: Coffin, Allison*
Title: Hair cell death and protection in the zebrafish lateral line
Facilities: Received 2/9 *BSM: Received 2/9*
Primary Reviewer: M. Kluzik *Secondary Reviewer: E. Shelden*
- 1/26/15: deferred by IBC, pending revision of the BAF and approvals of the FR and BSM (Reviewers).
7. *BAF Number: 825-009* *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: Current*
Primary Reviewer: Eric S *Secondary Reviewer: Nina W*
- 2/16/16: deferred by IBC, pending comparison with prior iterations and IBC notes.
 - 3/21/16: Facilities approved.
8. *BAF Number: 883-007* *Principal Investigator: Lange, Bernd*
Title: Regulation of Isoprenoid Biosynthesis in Plants
Facilities: Requested 1/28 *BSM: Under review*
Primary Reviewer: Hanu P *Secondary Reviewer: Eric S*
- 2/16/16: deferred by IBC, pending resubmission on current version of the BAF.
 - 2/25/16: PI has submitted inspection reports for the plant and non-plant rooms. Inspections sent to BSO, BAF to assigned reviewers.
9. *BAF Number: 1247-001* *Principal Investigator: Dieter, Brad*
Title: Serum Amyloid A in Diabetic Kidney Disease
Facilities: Not identified *BSM: Not submitted*

Primary Reviewer: **Phil B**

Secondary Reviewer: **Levi O**

- 4/19/16: Deferred pending completion of the BAF, and approvals of the BSM and facilities.
- 4/25/16: BSO sent comments to PI.
- 4/27/16: BSM requested.

10. BAF Number: 1248-001 *Principal Investigator:* **Wayman, Gary**

Title: **Viral expression of Proteins within the hippocampus**

Facilities: **BSM:**

Primary Reviewer: **Eric S**

Secondary Reviewer: **Dubra D**

- 4/19/16: Deferred pending

11. BAF Number: 1108-007 *Principal Investigator:* **Beyenal, Haluk**

Title: **Multiple projects on biofilms**

Facilities: **BSM:**

Primary Reviewer: **Levi O**

Secondary Reviewer: **Eric S**

- 4/19/16: Deferred pending
- 5/4/16: Revised BAF and new SOP received.

12. BAF Number: 1166-002 *Principal Investigator:* **Court, Michael**

Title: **Pharmacogenomic studies of drug response using healthy human tissues, cell lines, and hepatocytes**

Facilities: **BSM:**

Primary Reviewer: **Dubra D**

Secondary Reviewer: **Mike K**

- 4/19/16: Deferred pending
- 5/4/16: Revised BAF received.

13. BAF Number: 1167-002 *Principal Investigator:* **Lazarus, Philip**

Title: **Exemestane metabolic study for the personal treatment of breast cancer patients**

Facilities: **BSM:**

Primary Reviewer: **Mike K**

Secondary Reviewer: **Phil B**

- 4/19/16: Deferred pending

14. BAF Number: 1246-001 *Principal Investigator:* **Gleason, Cynthia**

Title: **Plant parasitic nematode-plant Interactions**

Facilities: **BSM:**

Primary Reviewer: **Linda T**

Secondary Reviewer: **Hanu P**

- 4/19/16: Deferred pending

15. BAF Number: 992-006 *Principal Investigator:* **Kennedy, Ann C**

Title: **Naturally Occurring Cheatgrass-Suppressive Bacteria in Rangeland Restoration**

Facilities: **BSM:**

Primary Reviewer: **Hanu P**

Secondary Reviewer: **Linda T**

- 4/19/16: Deferred pending
- 5/2/16: Updated BSM received.

IX. Biosafety Program Update

Mike K updated the committee with the findings regarding the autoclave that had set off fire alarms and sprinklers in the hallway outside a BSL-3 lab. It appears that the device was in an error mode for several days, not completely shut down, continuing to hold steam. When opened, condensation dripped onto a hot surface, flashing heat and steam into the fire-suppression system. A safety committee will meet 5/25, to explore both administrative and engineering solutions to prevent recurrence.

X. Adjournment

The meeting was adjourned at 14:26.

WSU IBC Minutes
June 21, 2016

IBC Members Present:

	Member	Affiliation/Role
1.	Eric Shelden	IBC Chair; School of Molecular Biosciences
2.	Mike Heston	Community Member; Pullman Fire Department
3.	Mike Kluzik	ORA Director; Research Assurances
4.	Hanu Pappu	Plant Pathology
5.	Steve Russell	Office of the Campus Vet
6.	Linda Thomashow	USDA/ARS; Plant Pathology

IBC Members Absent:

	Member	Affiliation/Role
1.	Phillip Butterfield	College of Nursing
2.	Laura Lavine	USDA/ARC; Entomology
3.	Levi O'Loughlin	Biosafety Officer; Research Assurances
4.	Nathan Weller	Community Member; Pullman City Council
5.	Nina Woodford	Office of the Campus Vet

IBC Invited Guests:

	Guest	Affiliation/Role
1.	Patrick Conner	Research Assurances; IBC Coordinator
2.	Ryan Schwager	Research Assurances; Assistant BSO
3.	Richard Partain	USDA

* Arrived after the Call To Order.

I. Call to Order:

The meeting was called to order at 13:15, with a quorum (6 of 11 members) present. All members and guests were present at the Pullman location, with the exception of Hanu P., who attended by phone.

II. Minutes – May 17, 2016

Approve. The motion was proposed by Mike H, and seconded by Mike K.

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

III. BSL – 2 BAFs

A. New Protocols:

1. *BAF Number: 1251-001* *Principal Investigator: Liu, Yiyong*
Title: Use Single-Cell RNA Sequencing to Study Neural-Immune Communications in C. elegans
Facilities: Assigned to Annette M 6/10/16 *BSM: Current*

Primary Reviewer: **Phil B**

Secondary Reviewer: **Laura L**

Discussion:

The discussion of infectious agents does not detail transportation procedures and the section describing the hosts for rDNA should be listed as BSL2 once infected.

Required Changes:

- Section 3.4: Include a description of the procedures you will employ to maintain containment when transporting materials between facilities.
- Section 4: Change the BSL of the rDNA host (*c. elegans*) to 2.

IBC Decision:

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

The BAF may be approved when these conditions are completed, to the satisfaction of the Assigned Reviewers. The motion was proposed by Eric S and seconded by Mike K.

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

2. BAF Number: 1252-001 Principal Investigator: **Oatley, Jon**

Title: **Gene Editing in Livestock**

Facilities: **Current** BSM: **Awaiting update**

Primary Reviewer: **Steve R** Secondary Reviewer **Mike K**

Discussion:

The committee did not agree that the research needed BSL2 containment. The host list is incomplete. There was a long discussion on whether or not the surrogate mother cows required incineration. In the absence of more specific guidance from the USDA, they must also be incinerated.

Required Changes:

- Change the BSL of the BAF to 1.
- Section 4: Change the indication that foreign DNA is injected into a cell or organism other than *E. coli* K-12 or derivative to 'Yes.'
- Section 4: Add bovine testicular cells to the host list.

Other:

- Express to PI, that, under current USDA guidelines, all animals involved in the research must be disposed of by incineration.

IBC Decision:

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 Steve R and seconded by Mike K.

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

B. Renewals:

1. *BAF Number: 1109-014* *Principal Investigator: Trobridge, Grant*
Title: Retroviral vector gene transfer to stem cells for gene therapy and cancer research
Facilities: Current *BSM: Current*
Primary Reviewer: Steve R *Secondary Reviewer Eric S*

Discussion:

The transportation procedures described in section 3 do not include the secondary containment. The BAF indicates that there is a Risk Group 3 agent in use, and the IBC was not sure that BSL2+ containment was sufficient.

Required Changes:

- Section 3.4: add “placed within a secondary, leak-proof container” to the procedures used to maintain containment when in transport.
- Regarding section 4, specify from which Risk Group 3 agent(s) you will be cloning DNA or RNA. Also provide documentation/evidence that BSL-2+ containment is sufficient for this or these agent(s). If the indication that the DNA/RNA to be cloned is from a RG 3 agent is incorrect, revise the answer.

IBC Decision:

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 Mike K and seconded by Mike H.

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

2. *BAF Number: 1154-002* *Principal Investigator: Walker, Brendan*
Title: Viral Vector-Mediated Conditional Gene Excision and Overexpression
Facilities: Current *BSM: Update requested 5/16*

Primary Reviewer: Phil B *Secondary Reviewer: Steve R*

Discussion:

The use of adeno-associated virus (AAV) should be indicated as an infectious agent in Section 2H, and Section 3 completed. The IBC did not agree with the indication of III-D-1 in Section 4, as there does not seem to be any Risk Group 2, 3 or 4 agent use. Additionally, the BAF hints at a possible future use of lentivirus. This needs to be fully described, or removed from the BAF

Required Changes:

- Remove the indications of the possibility of future use of lentivirus. This can be added later by amendment. Otherwise, revise the BAF to include all the details of the lentiviral work.
- Section 2H: Change the indication regarding infectious agents to ‘yes’ (AAV).
- Complete Section 3 (Infectious Agents) for the use of AAV (and Lentivirus, if you elect to retain it at this time).
- As you are not working with RG 2, 3 or 4 agents, revise the NIH category in section 4 (currently III-D-1). Otherwise, explain the reasoning for this selection

IBC Decision:

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 Eric S and seconded by Steve R.

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

3. *BAF Number: 1157-002* *Principal Investigator: Xu, Jun*
Title: Rodent Models for Human Neuropsychiatric Disorders
Facilities: Current *BSM: Requested 6/9*

Primary Reviewer: Mike K *Secondary Reviewer: Steve R*

Discussion:

The use of adeno-associated virus (AAV) and lentivirus should be indicated as an infectious agent in Section 2H, and Section 3 completed. It is unlikely that there are no personnel other than Dr. Xu.

Required Changes:

- Section 1b: List all personnel who will assist with procedures or animal care, as well as their level of expertise related to procedures performed.
- Section 2H: Change the indication regarding infectious agents to ‘yes’.
- Complete Section 3 (Infectious Agents) for the use of lentivirus and AAV.

IBC Decision:

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 Mike K and seconded by Steve R.

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

IV. BSL – 1 BAFs

A. New Protocols:

1. *BAF Number: 1250-001* *Principal Investigator: Vogel, Kara*
Title: Heritable disease and pharmacology
Facilities: Current *BSM: Requested 5/23*
Primary Reviewer: Eric S *Secondary Reviewer: Laura L*

Discussion:

Section 4 indicates that the procedures will expand the host range and increase pathogenicity. This is incongruous with BSL-1. Additionally, the use of whole human blood requires BSL-2 containment.

Required Changes:

- Resubmit at BSL-2, due to the use of whole human blood
- Section 4: Review the NIH_category (III-D-3) and the indications that the research will expand the host range and enhance the pathogenicity. If these are

correct, clarify what you employ and the source to achieve this. Otherwise, select a different NIH category.

- The facilities must be re-inspected at BSL-2 and a new BSM be submitted and approved.

IBC Decision:

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 Eric S and seconded by Mike K..

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

B. Renewals:

1. **BAF Number: 1107-003** *Principal Investigator: Cooper, Cynthia*
Title: Melanophore Function and Development in Danio rerio zebrafish
Facilities: Current **BSM: Current**
Primary Reviewer: Eric S **Secondary Reviewer: Phil B**

Discussion:

The goals, aims and plan of work are sparse and vague. It is not clear if transgenic animals will be produced, and what “finding novel genes” refers to. The rDNA will not be injected into K-12 or derivative.

Required Changes:

- Section 2A: Elaborate on the Goals and Aims and Plan of Work, with more details on the procedures to create the transgenic animals and what “novel genes” you hope to find and how you plan to find them.
- Section 4: Change the indication that foreign DNA is injected into a cell or organism other than E.coli K-12 or derivative to ‘Yes.’

IBC Decision:

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 Eric S and seconded by Mike H.

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

2. **BAF Number: 998-005** *Principal Investigator: Steber, Camille*
Title: Characterization of stress resistance genes and mechanisms, and improvement of genotyping of wheat
Facilities: Current **BSM: Current**
Primary Reviewer: Linda T **Secondary Reviewer: Hanu P**

Discussion:

There are spelling errors regarding the agents listed in Section 3. No NIH category selected in Section 4.

Required Changes:

- Section 3: Revise agent list for spelling. These changes can be made administratively, with PI approval.

- Section 4: Select III-E-2 as the NIH category. These changes can be made administratively, with PI approval.

IBC Decision:

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 Linda T and seconded by Hanu P.

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

C. Amendments:

1. **BAF Number: 847-007** *Principal Investigator: Vonwettstein, Diter*
Title: Transformation of microspores for generating transgenic wheat (*Triticum aestivum* L.) and barley (*Hordeum vulgare*)
Facilities: N/A BSM: Under Review
Primary Reviewer: Levi O Secondary Reviewer: Eric S

Discussion:

The only concern was whether or not the APHIS Permit had been transferred (unless all field work was complete and therefore not needed)

Required Changes:

- Clarify if the APHIS Permit has been transferred to Dr. Koenig, or if it is no longer necessary (i.e. all field plantings are complete).

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

The motion was proposed by Eric S and seconded by Linda T.

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

2. **BAF Number: 927-006** *Principal Investigator: Vonwettstein, Diter*
Title: Betaglucanase, Chitinase Expression in Barley
Facilities: N/A BSM: Under Review
Primary Reviewer: Levi O Secondary Reviewer: Eric S

Discussion:

The only concern was whether or not the APHIS Permit had been transferred (unless all field work was complete and therefore not needed)

Required Changes:

- Clarify if the APHIS Permit has been transferred to Dr. Koenig, or if it is no longer necessary (i.e. all field plantings are complete).

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

The motion was proposed by Eric S and seconded by Linda T.

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

V. Adjournment

The Meeting was adjourned at 14:26.