

Aug 25, 2025

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Institutional Biosafety Committee

Environmental Health and Safety

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To: Northern Arizona University Institutional Biosafety Committee Members

From: Shelley Jones, NAU IBC Administrator, Director of Biological Safety

Re: Draft August 20, 2025, IBC Meeting Minutes

Members present: Dan Kitterman, Andrew Koppisch, Jason Sahl, Jeffrey Baranowski, Sara Maltinsky, Kathleen Freel, Matthew Salanga, Fernando Monroy, David Wagner, Shelley Jones

Members absent: Terra Kelly

Visitors: Ana Braga, Research Coordinator, Senior Erik Settles, Associate Research Professor

Kelly Speer, Assistant Professor

Amy Vogler, Assistant Director

Call to order: The IBC Chair, Andrew Koppisch, called the meeting to order at 3:01; the meeting was held via video conference; a quorum was present. The meeting announcement and link were posted on the NAU Biosafety Website.

Approval of minutes: The draft minutes of the previous meeting held February 13, 2025, were previously distributed to the committee and available for review. The Committee had no comments on the draft minutes. Motion to approve by Dr. Salanga, second by Dr. Monroy, all in favor of approving the minutes (10-0).

1. The Committee reviewed new submissions and amendments to the IBC:

- RDJF-0125 Possession of *Burkholderia pseudomallei* recombinants
  - Description: New protocol
  - PI: Jeff Foster
  - BSL: BSL3 (RG3)
  - NIH Guidelines: NIH Guidelines Section III-D-1-b. Experiments involving the introduction of recombinant or synthetic nucleic acid molecules into Risk Group 3 agents will usually be conducted at BL3 containment.

Protocol overview: Ms. Jones spoke on Dr. Vogler's behalf as her microphone was not functioning. These samples are changing ownership from Dr. Schweizer to Dr. Foster under this protocol. This protocol is specifically for recombinants.

Questions/Comments: Dr. Monroy noted if it's just a change of ownership, no further questions.

Motion to approve by Ms. Jones, second by Dr. Monroy, motion approved unanimously (10-0).

- RDAV-0125 Recombinant attenuated *Burholderia pseudomallei* and *Yersinia pestis*
  - Description: New protocol
  - PI: Amy Vogler
  - BSL: BSL3
  - NIH Guidelines: Section III-E. Experiments that Require Institutional Biosafety Committee Notice Simultaneous with Initiation Experiments not included in Sections III-A, III-B, III-C, III-D, III-F, and their subsections are considered in Section III-E. (This designation is per Kathryn Harris at NIH OBA)

Protocol overview: Ms. Jones indicated that these are not select agents and NIH considers Bp82 a RG3 that needs to be worked with at BL3 containment, so permission is needed to work at BL2; NIH approval will be requested. This registration also documents moving Bp82 and attenuated Yp from Dr. Keim to Dr. Vogler. Documentation is available proving the ability to work on these samples in BL2.

Questions/Comments: N/A

Motion for approval by Dr. Monroy, second by Mr. Kitterman, motion approved unanimously (10-0).

· RDES-0125 Development of T cell based therapy by generating the chimeric T cell expressing TCR associated with infectious disease protection using retroviral transduction system

- Description: New protocol
- PI: Erik Settles
- BSL: BSL2
- NIH Guidelines: Section III-D-1, Section III-D-3, Section III-D-4, Section III-F-8

Protocol overview: Protocol to modify T-cells from mice using retroviral vector system. Identify T-cell receptors to show efficacy of infectious diseases. Only murine and rat retroviruses will be used; they are not able to infect humans/primates.

Questions/Comments: Dr. Salanga asked about animal use and need for IACUC. No concern, just that the expiration is approaching rapidly ensuring there is no lag on IACUC coverage/oversight. Dr. Settles said he has not yet filed an IACUC for this work but will. Ms. Jones asked if *Coccidioides* is to be incorporated eventually. Dr. Settles said yes, it will be multiple steps down the road to be transferred into mice. They are first demonstrating that they can do it. Spleen samples first, making many cells expressing T-cell receptor. Dr. Monroy asked if they have a detection protocol. Dr. Settles responded GFP first then dual construct.

Motion to approve by Dr. Salanga, second by Dr. Monroy, motion approved unanimously (10-0).

· RDES-0122 Cell tissue culture for infection with bacterial pathogens

- Description: Protocol renewal; personnel updates
- PI: Erik Settles
- BSL: BSL2/3
- NIH Guidelines: Section III-D-3; Section III-F-8, Appendix C-1

Protocol overview: Dr. Settles explained that this is a general culture protocol needing renewal. Modification is simply personnel changes and updates.

Questions/Comments: no comments/questions

Motion to approve by Dr. Salanga, second by Dr. Monroy, motion approved unanimously (10-0).

· BABB-0122 Working with various BSL3 fungal pathogens

- Description: Amendment to protocol
- PI: Bridget Barker
- BSL: 3
- NIH Guidelines: N/A

Protocol overview: Ms. Braga summarized that the change being proposed is moving mice that have been infected in ABSL3 with *Coccidioides*, into the ABSL2 to house mice there and perform the remaining work. Containment caging and BSC handling of mice will continue.

Questions/Comments: Dr. Wagner asked why this move is necessary. Ms. Braga replied that the kind of work Dr. Settles wants to do (see above) would require more equipment to be brought into the ABSL3. The ABSL2 would allow more space and ability to move around, more work to be done, more mice processing abilities, etc. They could also do long term experiments for vaccine trials, lasting 3-4 months at a time and this would assist with animal care.

Dr. Wagner pointed out how small the ABSL3 space is and this would allow more people to also get involved that may not have clearance to go into ABSL3. He asked for more biosafety related information. Dr. Settles points out the BMBL housing requirements. In approximately 2 hours post infection, the life stage of *Coccidioides* is the mice is spherules. Macaques, at a different entity, for example, are housed in an ABSL2 environment. Ms. Braga added that the clinical nature of the work aligns with BMBL standards. No *Coccidioides* will be handled in ABSL2, just the animals.

Ms. Jones clarified this is intranasal infection of mice, alcohol is used to wipe noses, and the mice would be placed in clean cages before being brought out of the ABSL3. Once in the ASBL2, ABSL3 practices are followed. Ms. Jones asked how long before animals get moved? Ms. Braga said at least 8 hours. Ms. Jones also pointed out the difficulties of deconning the gene gun in the ABSL3, so that was another element to consider.

Dr. Sahl's asked if there was a concern with mice getting loose, not captured and dying, which could produce arthroconidia. Ms. Braga replied that they don't see arthroconidia grow earlier than 2 weeks, so if a mouse was lost for 2+ weeks it could potentially happen but is highly unlikely for a mouse to escape unnoticed firstly and secondly that an animal would be hard pressed to get out of the room (door sweeps, etc.), highly unlikely they'd ever lose a mouse. Ms. Jones agreed that there is no space for a mouse to hide or get under the door. Ms. Braga also noted that a mouse bite is technically its own concern but again, not handling outside of BSC or with animal having *Coccidioides* in arthroconidia state. Dr. Wagner echoed doubts that a mouse would go unnoticed for 2 weeks. Also said, other institutions are doing this sort of work in an ABSL2 so this shouldn't be a big deal.

Dr. Wagner asked how the PPE changes from moving to an ABSL3 to ABSL2. Ms. Braga said only thing needed to add to PPE is pants in an ABSL2 environment (gown, double glove, long pants, closed toed shoes).

Ms. Freel asked in the chat if they'll be bringing in all the hopper enrichment from the ABSL3 into the ABSL2. "Will we need to autoclave cages from the 3 after they are moving into the 2 cages." Also asked for the SOP to be shared (specifically alcohol to wipe nares). Ms. Braga said new hoppers, enrichment, and cages will be provided clean in the ABSL2, so only the mouse is "dirty".

Ms. Jones commented that she had met with Ms. Braga, Dr. Vogler and Ms. Maltinsky to perform a risk assessment prior to bringing it to the committee. She has no concerns following the discussion and is comfortable with the change.

Ms. Freel shared additional concern about amount of air available in the static animal cage during the movement from ABSL3 to the adjacent ABSL2 room (~15 minute oxygen allowance, 5 mice in a cage).

Ms. Braga recognizes the challenge this creates but is confident they can meet the time limit. They may need to reduce the number of cages being moved at a time or number of animals per cage. They will determine what is reasonable and how many mice can be moved at a time (through trial and IACUC review).

Dr. Wagner said he's not hearing much in the way of biosafety concerns, just IACUC. Dr. Koppisch agreed and thinks we have what we need. Dr. Monroy said only questions are IACUC related. Dr. Sahl was concerned there's no SOP for bed/cage changes for this specific modification. Ms. Jones said the IBC can request that Ms. Braga develop an SOP, work with IACUC and send it out to IBC for a vote after everything is completed.

Dr. Wagner asked if we had to wait for IACUC, but Ms. Jones clarified that IACUC waits for IBC to approve, so we don't need to delay past receiving the SOP.

Motion to withhold approval until all details are clarified and SOP updates are approved by the IBC via email by Ms. Jones, second by Dr. Monroy, motion approved unanimously (10-0).

- BAJL-0122 Zoonotic implications of host genetics, immunity, and virome in bats
  - Description: Protocol renewal
  - PI: Jason Ladner
  - BSL: 2
  - NIH Guidelines: N/A

Protocol overview: Ms. Maltinsky voiced that these 2 protocols under Dr. Ladner have no amendments from previous approval, simply needing to be renewed in order to complete some data analysis.

Questions/Comments: N/A

Motion to approve by Ms. Jones, second by Dr. Monroy, motion approved unanimously (10-0).

- BAJL-0222 Enabling comprehensive immune-profiling in animals through a combination of Xenosurveillance and Highly-Multiplexed Serology
  - Description: Protocol renewal
  - PI: Jason Ladner
  - BSL: 2
  - NIH Guidelines: N/A

Protocol overview: Same as note above.

Questions/Comments: N/A

Motion to approve by Ms. Jones, second by Dr. Monroy, motion approved unanimously (10-0).

- BAKS-0125 Parasites and microbiomes of deer and ked flies
  - Description: Protocol registration
  - PI: Kelly Speer
  - BSL: 1/2

- NIH Guidelines: N/A

Protocol overview: Dr. Speer's proposed work involves DNA extractions and Sanger sequencing on deer and ectoparasites. These samples, on loan from LA county museum, were collected by hunters and are chronic wasting disease negative samples from Texas. Although these samples are not suspected of containing infectious agents, they will be handled in the BSL2 lab in BSC until post-extraction.

Questions/Comments: Ms. Jones asked about neurological tissue being present (brain, nervous system tissue, etc.). Dr. Speer indicated that she will only be working with liver and lung from the deer with all extractions being done in the BSC for utmost care. 50% bleach contact time for 2 minutes. Autoclave procedure are also included to inactivate any potential biological organisms. Dr. Speer is keeping up on surveillance of locations of samples for any testing positive. Dr. Wagner pointed out to take such maps/surveillance with a grain of salt but that the steps Dr. Speer is taking should be more than fine. Sharps will be involved with extraction (Dr. Speer pointed out) so there are protocols for treating any puncture wounds so they can add that modification into the existing IBC if need be. Dr. Koppisch expressed delight to see a brand new protocol; he thanked Dr. Speer for attending.

Motion to approve by Dr. Salanga, second by Dr. Monroy, motion approved unanimously (10-0).

2. Chair/IBC Administrator Approved Protocols/Amendments since February 13, 2025, meeting:

- BAPK-0110 *Genetic and Genomic Analysis of Various BSL3 Microbial Pathogens*  
PI: Paul Keim  
Description: Amendment to add personnel Jeffrey Baranowski and Sara Maltinsky and remove personnel
- RDPK-0115 *Expression of recombinant proteins for diagnostic and vaccine development*  
PI: Erik Settles/Paul Keim  
Description: Amendment to add personnel Katelyn Francesconi, Kate Roark, and Briana Coyne and remove personnel
- BAES-0125 *Assays and methods to understand the Host Response using clinical or challenged animal samples*  
PI: Erik Settles  
Description: Amendment to add personnel Briana Coyne, remove personnel, and add sample types

Protocol overview: Ms. Jones explained that these protocols were reviewed and approved since the last committee meeting by the IBC Administrator since they are personnel changes.

Comments/Discussion: No questions.

3. New Business:

- Reminder that meeting minutes will be posted on NAU IBC page starting with this meeting.

- Every protocol must include eye protection in PPE section of IBC.
- NIH incident report: recombinant *E. coli* splashed someone's face. Ms. Jones suggested soap and water be used rather than ethanol in the future.

Motion to adjourn by Ms. Jones, second by Dr. Monroy, all approved (10-0) and meeting was adjourned at 3:55.