Institutional Biological Safety Committee Meeting

Wednesday, October 22, 2025
2:30 pm – 4:00 pm
Hybrid meeting

Attendees
Robert Egbert (IBC Chair)
Erin Bredeweg (IBC Vice Chair)
Owen Leiser (rDNA Expert)
Amy Person (Local Non-Affiliated Member)
Ted Ricci (Local Non-Affiliated Member)
Danielle Saunders (Animal Expert, Technical Representative)
William Chrisler (Technical Representative)
Jen Mobberley (Technical Representative)
Vimal Balasubramanian (Plant Expert, Technical Representative)
Elizabeth Rosso (Legal Expert)
Robert Jetters (Biological Safety Officer Delegate)

Other Attendees
Dale King
David Billetdeaux
Sarah Fansler
Carina Cassel

Welcome

Call to Order: The Chair called the meeting to order at 2:32 pm.

Roll call was taken. Voting quorum was present.

IBC Approvals and Notifications

Minutes – The Chair moved to approve the September 24, 2025, minutes as written. No discussion was had. The September 24, 2025 minutes were approved.

rDNA Registrations: There was one (8) rDNA Registrations to review:

Renew Registration LA-RDNA-5090/92, Disulfide bonded miniproteins with designed sequences are being expressed and purified and subjected to proteomics analysis. The plasmids (pET22b-CPD and pET32a(+) code for a fusion product including OsmY protein, a deca-histidine tag, and SUMO protein Smt3 from Saccharomyces cerevisiae. These additional proteins will be cleaved from the protein of interest. This research falls under NIH Guidelines Section III-E and is proposed to be conducted at BSL1. A motion was made to conditionally approve this registration as III-E pending resolution confirmation of lab workers and adding worker relevant activities. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

New Registration LA-RDNA-5092, The goal of the project is to screen antibodies against palytoxin (PTK) poisoning. PTK targets the Na/K ATPase (NKA) pump and acts on it such that it becomes an ion channel. We will over express the main subunits of the NKA pump in the membrane of HEK-293T, THLE-2, and A-549 cells to improve sensitivity to PTX activity. We expect to identify new antibodies that rescue the NKS pump from PTX action. This research falls under NIH Guidelines Section III-D and is proposed to be conducted at BSL2. A motion was made to approve this registration as III-D. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

Renew Registration LA-RDNA-5093/76, The overall goals of the project are to understand the host response to highly pathogenic human coronaviruses in human lung cells. Datasets derived from total RNA, protein metabolites, and/or lipids harvested over a 48-hour time course will be used to determine host pathways that are critical for CoV infection and to identify novel targets for therapeutic interventions. Experiments will use inhibitor studies to validate bioinformatic studies that indicate the importance of cellular pathways for coronavirus replication. This research falls under NIH Guidelines Section III-D and is proposed to be conducted at BSL1. A motion was made to table this renewal as it needs Biosafety Expert Review. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

Renew Registration LA-RDNA-5094/77, We will use the HEK293T cells expressing ACE2 and the plasmids described below to isolate the SARS-CoV 2 replicon particle to use as a proof of concept assay to evaluate nanobodies that recognize SARS-CoV 2 spike glycoprotein. Two immortalized human cell lines available at BEI Resources that were engineered to express human ACE2: a0 HEK 293T cells and b) A549 cells. These two cell lines were acquired from BEI Resources. Plasmids will be transformed and then amplified in E. coli prior to transfection of mammalian ce3lls/yeast transformation. No manipulation of the plasmids will be done. This research falls under NIH Guidelines Section III-D and is proposed to be conducted at BSL2. A motion was made to conditionally approve this registration pending participants completing Annual Training on Blood Borne Pathogens. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

Renew Registration, replaced expired version LA-RDNA-5095, The goal of the project is to study viral protein production and host response to virus infected cells. This project will use virus strains derived from cDNA clones that have been engineered to contain one of six fluorescent or luminescent reporter genes. Engineered viruses will be used to infect immortalized cell lines (all work performed in collaboration with UW in Seattle) and samples will be collected from downstream omics analysis. This research falls under NIH Guidelines Section III-D and is proposed to be conducted at BSL3. A motion was made to conditionally approve this registration pending participants completing Annual Training. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

New Registration, replaced expired version LA-RDNA-5096, Will use cultures of primary or immortalized human lung cells, B cells (B-LCL cells), and/or macrophages to determine the host response to human viruses spread by respiratory infection using omics analysis. Samples will be harvested using established/published methods that both inactive and replication competent virus and allow for the collection for RNA (Trizol) and protein samples (detergent + heat treatment). Recombinant measles virus strains will be used in assays to determine if host targeted pathway/enzymatic inhibitors can also inhibit virus replication, 96 well plate based assays tracking virus induced ctopathic effect will be the readout. This research falls under NIH Guidelines Section III-D and is proposed to be conducted at BSL2. A motion was made to conditionally approve this registration pending participants completing Annual Training and confirmation of worker list. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

New Registration LA-RDNA-5098, Provide fundamental knowledge and build tools to increase Ln binding selectivity, investigate cytosolic Ln transport, and increase intracellular Ln sequestration via intracellular biopolymers using strains with the genus Variovorax. At PNNL, post-candidate screening and selection, we will leverage synthetic biology tools developed to enable HT gene function analysis in V. paradoxus. Performing PNNL's serine recombinase-assisted genome engineering (SAGE) paired with Cas12-based CRISPR interference (CRISPRi) for deep functional characterization of Ln transport machinery. This research falls under NIH Guidelines Section III-E and is proposed to be conducted at BSL1. A motion was made to approve this registration. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

New Registration LA-RDNA-5099, This project will develop and use generalizable methods to manipulate protein post-translational modifications (PTMs) in vivo and determine the phenotypes influenced by the bacterial PTM lysine acetylation. Purpose of the product is to understand how post-translational modifications of proteins affect bacterial physiology, with a specific emphasis on how these modifications affect production of biofuels and biochemicals. This research falls under NIH Guidelines Section III-D and is proposed to be conducted at BSL1. A motion was made to conditionally approve this registration pending confirmation of strain used is listed on the organism ID Sheet. Votes: 11 For, 0 Against, 0 Abstain. No conflicts of interest.

Lab Assist Activity Summaries: There were five (3) Lab Assist activity summaries to report.

LA# 4634, EMSL 3020 – 9/18/25 - Version 2: Users will operate a TFS Titan Krios Transmission Electron Microscope (TEM) to characterize sample size, morphology, and structure. TEM sample preparation will be conducted in the sample preparation lab under a different Activity specific to sample preparation.

LA# 2264/ PDLW 106 – 6/9/25 – Version 3: Operation of the Hockmeyer immersion mill. The mill may be used to prepare feed for MHTLS testing or for other purposes, such as feed preparation for bench scale hydrothermal liquefaction (HTL) testing.

LA# 11764 5/5/25 – Version 1: This activity is intended for use in the preparation of Bioassay Quality Control samples for monitoring the analytical performance3 of the contracted laboratory in the measurement of specific radioisotopes present in urine and fecal matrices

Lab Walk-throughs: There were no Walk-throughs to report.

2400 Calls - There were no 2400 Call to report.

Glossary of Locations	
BSF	Biological Sciences Facility
EMSL	Environmental Molecular Sciences Laboratory
MSL	Environmental Molecular Sciences Laboratory

Roundtable:

No items discussed

The Meeting adjourned at 3:52 p.m.

**** The next IBC meeting is scheduled for November 19, 2025 at 2:30pm ****