Institutional Biosafety Committee Meeting
July 15, 2025
1:30-3:00 pm
Zoom Virtual Meeting

Institutional Biosafety Committee Meeting minutes

Meeting Attendance:

- Members in attendance:
  - Elena Demireva
  - Jonathan Hardy
  - Dave Morgan
  - Jamie Willard-Smith
  - Sarah Roosa
  - Raj Kulkarni

- Members not in attendance:
  - Carrie Anglewicz
  - Jan Patterson Samson
  - Guo-Qing Song
  - Michael Bachmann
  - Andras Komaromy
  - Carolina de Aguiar Ferreira
  - Simon Petersen-Jones

- Others in attendance:
  - Chris Colvin
  - Alessandra Hunt
  - Luis Ochoa Carrera
  - Lena Combs, HFH
  - George Wilson, HFH

Call to order:
Elena Demireva

Roll call:
Chris Colvin

Discussion of the agenda:

- Approved as written.

Discussion of minutes:

- Approved as written.

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Registration review:

Study Info

Safety0001206: [redacted]
Cancer Therapy
Training: Complete for all members listed
NIH III D-1-a, RG-2, BSL-2
This registration has been approved with edits. The PI has been asked to clarify the following:

- Biosafety Summary
  - Remove vague language like "such as" and be specific for the information provided.
  - Include information on in vivo AAV-CRISPR-Cas9 experiments if being conducted, this is mentioned only in the genetically modified animals section.
- Cells
  - Update all human cell lines to BSL-2.
- Tissues
  - Mouse tissues can be updated to BSL-1 unless they are potentially infectious.
- Viruses
  - Include AAV if using.
- rDNA Usage
  - 3a: What is the summary table that is mentioned?
  - 3b: Include all inserts, missing GFP, RFP and guide RNA's.
  - 3c: Elaborate on Lentivirus and CRISPR as hazards, add ASPH if oncogenic.
  - 4b: Include plasmids used for cloning into E. coli. Include Lentivirus packaging vectors.
  - 5a: Add E. coli as host
- rDNA Work Description
  - 2: Add all cell lines receiving rDNA, add mice if they are receiving rDNA
  - 5: Provide information for all viruses that are used.
  - 6: Include Coxsackie and VSV.
  - 7a: Provide more information on planned experiments.
- Risk Group
  - 2: Update to ABSL-2, BL-2 for containment and BL-2N
- Exposure Assessment
  - 3: Update autoclave number
  - 3: Update eye wash flush date
  - Safer Sharps: Update forms in the supporting documents page to include all listed sharps that are being used with human or potentially infectious material.

Study Info

Safety0001208: [redacted]

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[redacted]: CRISPR Editing of Human Induced Pluripotent Stem Cells
Training: Complete for all members listed
NIH III E, RG-1, BSL-2
This registration has been approved with edits. The PI has been asked to clarify the following:

- Biosafety Summary
  - If overexpressing NRSF include vectors for that on the rDNA usage page question 4.
- Cells
  - 5e: Cell sorting addendum is blank, re-upload the completed form.
- rDNA Usage
  - 4a. Update if no longer doing NRSF overexpression and have it match answer in 4b.
- rDNA Work Description
  - 1: Missing Addgene vector pSpCas9BB.
- Exposure Assessment
  - 1: Expand 1st sentence for exposure to bloodborne pathogens with the use of human materials.
  - 3: Update eyewash flush date.

Study Info

- **Safety0001249: [redacted]**

[redacted]: Arrestins and G-protein coupled receptor kinases
Training: Complete for all members listed
NIH III E-1, RG-1, BSL-2
This registration has been approved with edits. The PI has been asked to clarify the following:

- Cells
  - Update RAW cells to BSL-1.
- rDNA Usage
  - 3b: Include species for inserts.
  - 3b: Typo on “regulate”
  - 9: Change to NA
- Exposure Assessment
  - Need safer sharps evaluation and review forms if needles are used with human materials.

Study Info

Safety0001250: [redacted]
Molecular mechanisms induced by drugs of abuse and stress

Training: Complete for all members listed
NIH III D-4, RG-1, BSL-2
This registration has been approved with edits. The PI has been asked to clarify the following:

- rDNA Work Usage
  - 3c. Can GSK3β can exhibit both tumor suppressor or oncogenic potential.
- rDNA Work Description
  - 5: Include more details on virus pathogenicity, host range or generation system.
  - 6: Include more details on virus (genus, species and strain).
- Exposure Assessment
  - 3: Add Centrifuge aerosol lids, update eye wash flush date.
  - 4: Hamilton Syringes need to be added to the safer sharps forms on the supporting .documents page if they are used for delivery of infectious material.

Study Info

- **Safety0001251:** [redacted]

Optoelectronic Array
Training: Complete for all members listed
NIH III D-4-a, RG-1, BSL-1
This registration has been approved with edits. The PI has been asked to clarify the following:

- rDNA Work Usage
  - 3a. Update rationale and move insert to 3b.
  - 3c. Remove mCherry, as it is not hazardous
- rDNA Work Description
  - 6. Provide genus, species, and strain of virus
- Exposure Assessment
  - 1: Expand on the risks associated with working with exposure to the AAV?
  - 3: Add Centrifuge aerosol lids if spinning the virus
  - 4: Include safer sharps evaluation and review on the supporting documents page if using with infectious materials.

Study Info

- **Safety0001253:** [redacted]

Molecular Cellular Reprogramming 2025
Training: Complete for all members listed
NIH III D-4-a, RG-1, BSL-1
This registration has been approved with edits. Elena Demireva has abstained from the vote. The PI has been asked to clarify the following:

- Cells (Tissues?)
  - Separate the embryos and fin biopsies
- rDNA Usage
  - 5a: Remove Zebra Fish eggs and embryos these are recipients, not hosts.
  - 5c: Change to Yes

Study Info

- **Safety0001254: [redacted] - Ha2 + Gp41 + S2 (2025)**

Training: Complete for all members listed
NIH III E-1, RG-1, BSL-1
This registration has been approved with edits. The PI has been asked to clarify the following:

- Exposure Assessment
  - 1: Explain/discuss if exposure to the purified proteins which can penetrate cell membranes can have any potential consequences.
- Supporting Documents
  - If safety issues with exposure to proteins – discuss with EHS and upload an SOP for handling.

Study Info

- **Safety0001256: [redacted]**

Host Response to Intracellular Pathogens (BSL2) Year 7-9
Training: Complete for all members listed
NIH III D-4-c-2, RG-2, BSL-2
This registration has been approved with edits. The PI has been asked to clarify the following:

- Cells
  - RAW cells and other mouse cells can be downgraded to BSL-1
  - 5d: Remove statement "No sorting is done at the Core"
- rDNA Usage
  - 3b: GFP species of origin is missing.
  - 4e: Typo "likelihood"
  - 5a: Only list hosts used to produce plasmids or viruses (e.g. E. coli and 293)
  - 8: Address question with more detail on the consequences, e.g. integration
  - 9: Include exposure response protocol or refer to protocol document.
- rDNA Work Description
  - 2: Remove E. coli.
  - 4: Yes, if pseudotyping Lentivirus.

    - 5: Provide details on the pathogenicity, host range or generation system
    - 6:Pprovide genus, species, and strain of pathogen.
- Exposure Assessment
    - 4: Include needles.
- Supporting Documents
    - Include Sharps Annual Review document.

Study Info

Safety0001257: [redacted]
2025 Biosafety Renewal
Training: Complete for all members listed
NIH III D-1-b, RG-2, BSL-3
This registration has been approved with edits. The PI has been asked to clarify the following:

- Tissue
    - Update Spleen source, currently listed as mouse lungs.
- Cells
    - Mouse cells can be listed as BSL-1
- rDNA Usage
    - 5a: List only hosts used to grow plasmids or produce viruses.
- rDNA Work Description
    - 2: Remove vector information.
- Supporting Documents
    - Upload latest version of the BSL-3 SOP.

Study Info

- **Safety0001258: [redacted]**

[redacted] - The study of genetically encoded protein hydrogel
Training: Complete for all members listed
NIH III E, RG-1, BSL-1
This registration has been approved with edits. The PI has been asked to clarify the following:

- rDNA usage
    - 5a. Only 5alpha strain is a host
    - 10: Include you will call MSU police as well.
- Exposure Assessment
    - 1: Remove statement “standard BSL-2…..sentence”.
    - 3: Update eyewash test date
    - 5: Change to 10% bleach

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- **Safety0001261: [redacted]**

[redacted]2025
Training: Complete for all members listed
NIH III D-4-a, RG-1, BSL-1
This registration has been approved with edits. The PI has been asked to clarify the following:

- rDNA Work Description
  - 7a and 7b: Add use of PhiC31 integrase system.

Study Info

- **Safety0001264: [redacted]**

[redacted]-polysaccharide
Training: Complete for all members listed
NIH III D-6, RG-1, BSL-1
This registration has been approved as is.

Study Info

- **Safety0001267: [redacted]**

Protein-lipid interactions in long-distance signaling in plants - continued
Training: Complete for all members listed
NIH III E-2, RG-1, BSL-1
This registration has been approved with edits. The PI has been asked to clarify the following:

- rDNA Work Description
  - 2: Include the Tomato, Soybean and Maize if used.

Study Info

- **Safety0001270: [redacted]**

[redacted]: Defining Relevant Targets of the DNA Dependent Protein Kinase
Training: Complete for all members listed
NIH III E, RG-1, BSL-2
This registration has been approved with edits. The PI has been asked to clarify the following:

- Cells
  - 5e: Addendum has some missing checkboxes that need to be included.
- rDNA Usage
  - 3b: Include species for Cas9 (Streptococcus pyogenes).

    - 3e: Change to <1/2
    - 4b: Add retroviral and helper plasmids listed in question 4a.
- rDNA Work Description
    - 5: Change to Yes.
    - 6: Change to Yes.
- Exposure Assessment
    - 1: Remove statement "There is an extremely remote chance of exposure to human material that may harbor human pathogens that might cause disease in humans." Replace with discussion of specific exposure consequences – e.g. BBP exposure from human cell lines, infection by MLV and potential insert expression.
- Supporting Documents
    - Sharps annual review and evaluation needed if sharps used with human cell lines or infectious material.

New Items:

- CLICK update: Team member training page will be updated to include the new courses to show last completed date for Lab basic courses.
- NIH Maximum transparency:
    - IBC roster available on the NIH website https://ibc-rms.od.nih.gov/Contents/IBC_LIST_REPORT.aspx
    - IBC meeting minutes will be posted to IBC website https://ehs.msu.edu/lab-clinic/bio/ibc-roster.html

Previous Submissions:

- Safety0001223 [redacted]

Next Meeting: August 4, 2025, 1:30pm