The Buck Institute for Research on Aging

Institutional Biosafety Committee
Thursday July 31, 2025
12:00-1:57pm
Zoom

Meeting Minutes

Voting Members Present:	Chris Endicott, PhD (Chair, BSO, Chemistry) Malene Hansen, PhD (CSO, Genetics, *C. Elegans*) Birgit Schilling, PhD (Chemistry) Myriam Chuquin (Grants Director) Meredith Protas, PhD (Genetics, Community Member)
Voting Members Absent:	Gary Scott, PhD (Molecular Biology) Marilyn Dobbas, (RN-retired, Community Member)
Other Attendees:	None

1. Call to Order
    a. A quorum was confirmed and the meeting came to order at 12:02pm.

2. Review of Minutes from 5/14/25 IBC Meeting
    a. Prior meeting minutes were reviewed and unanimously approved.
    b. An email will be sent to the Buck faculty to inform them that the IBC meeting minutes are now being posted on the Buck website.

3. Discussion Regarding BUA Personnel
    a. Members raised concerns that there were still missing personnel from several BUAs.
    b. The Chair showed the IBC a recent personnel audit for all labs and explained its status.
    c. IBC discussed the importance of having personnel updated as quickly as possible.
    d. The Chair will work with HR to improve personnel tracking related to the BUAs and complete the remaining personnel addenda by the next IBC meeting.

4. Review of Items from Previous IBC Meeting
    a. BUA#: IBC-00000008
    Title: Retrograde Regulation of Synaptic Strength by Translational Mechanism
    PI: Pejmun Haghighi
    Type: 3-year Renewal
    Reviewers: Full Committee
    NIH Guideline Sections: III-D-4, III-F-8, App C-VII
    Status: Approved, 7/18/25

    This BUA renewal was discussed during the 5/14/25 IBC meeting, and the IBC unanimously voted for conditional approval. The IBC requested additional description regarding how their HeLa and HEK 293T cell lines would be used. The IBC also requested that the listed toxins (Bouin's Fixative, Cycloheximide, Glutaraldehyde, Paraformaldehyde, Mercaptoethanol, and Trizol) have more extensive hazard descriptions. Some personnel information, such as degrees and experience, still needed to be completed. This BUA renewal was fully approved for BSL2 research once the review comments had been addressed.

b. BUA#: IBC-00000023
Title: Pharmacology and Genetics of Lifespan Extension Characterizing the Human Aging Insolublome
PI: Gordon Lithgow
Type: 3-year Renewal
Reviewers: Full Committee
NIH Guideline Sections: III-D-4
Status: Approved, 6/13/25

This BUA renewal was discussed during the 5/14/25 IBC meeting, and the IBC unanimously voted for conditional approval. This BUA renewal needed to correct the PI name and a duplicate grant number. Their chemical inventory was reattached after updating some room storage information. Strains of *E.coli* used were updated as OP50-1 and HT115. This BUA renewal was fully approved for BSL2 research once the review comments had been addressed.

c. BUA#: IBC-00000024
Title: Studies on Aging, Neurodegeneration, and Age-Related Diseases
PI: Pierre-Yves Desprez
Type: 3-year Renewal
Reviewers: Full Committee
NIH Guideline Sections: III-D-1, III-E-1, III-E-3, III-F-1, III-F-4, III-F-6, III-F-8, App C-II, App C-VII, App C-VIII
Status: Approved, 6/13/25

This BUA renewal was discussed during the 5/14/25 IBC meeting, and the IBC unanimously voted for conditional approval. The IBC suggested a change to the title, and the PI name needed a correction. Some personnel information was still missing. This BUA renewal was fully approved for BSL2 research once the review comments had been addressed.

d. BUA#: IBC-00000027
Title: Morphology and Imaging Core
PI: Akos Gerencser
Type: 3-year Renewal
Reviewers: Full Committee
NIH Guideline Sections: Not Applicable
Status: Approved, 7/18/25

This BUA renewal was discussed during the 5/14/25 IBC meeting, and the IBC unanimously voted for conditional approval. Since the Morphology and Imaging Core supports research for other Buck Institute laboratories, the IBC decided that this BUA application should only focus on the hazards that are routinely present in that space and handled by morphology staff. Tissues and other potentially infectious materials that are brought into the Morphology core must be covered by that lab's own BUA, and Morphology staff will only handle those samples after full disclosure regarding their hazards if necessary. Chemical inventory needed some clarification, and the PI name needed a correction. This BUA renewal was fully approved for BSL2 research once the review comments had been addressed.

e. BUA#: IBC-00000009
Title: Exploring Neuronal Cell Death Using Genetically Engineered Models
PI: Julie Andersen
Type: Addendum
Reviewers: Full Committee
NIH Guideline Sections: III-E-3, III-F-1, III-F-5, App C-III, App C-VII
Status: Approved, 6/5/25

This BUA addendum was discussed during the 5/14/25 IBC meeting, and the IBC unanimously voted for conditional approval. The purpose of this addendum is two-fold:

1) To add Jurkat, Clone E6-1 TIB-152 (a human T cell hybridoma) to their list of cell lines. They currently use the mouse T cell hybridoma called Do-11-10 and need to change to a human cell line.

2) To add human iPSC lines (WTC11-NGN2, F11362.1-NGN2, and WTC11-NGN2 with tauV337M mutation) to their list of cell lines. An application to use these iPSC cell lines was also submitted to and approved by the Buck SCRO committee.

The IBC requested to include additional toxins from their chemical inventory and to clarify their source of Tg rodents. This BUA addendum was fully approved for BSL2 research once the review comments had been addressed.

5. Review of New Addenda to Approved Authorizations
   a. BUA#: B1036
      Title: The Role of the Immune System in Diet Induced Obesity and Aging
      PI: Daniel Winer
      Type: Addendum
      Reviewers: Full Committee
      NIH Guideline Sections: III-D-4, III-E-3, App C-VII
      Status: Unanimous vote to approve addendum

      This BUA addendum was reviewed and denied approval at the 5/14/25 IBC meeting. It has been resubmitted after addressing the reviewer comments to update their cell line, donor deidentification, and personnel information. The IBC requested one additional edit regarding source and deidentification of their blood samples. This BUA addendum was approved for BSL2 research.

   b. BUA#: B1037
      Title: Chronic Inflammation and Non-Communicable Disease
      PI: David Furman
      Type: Addendum
      Reviewers: Full Committee
      NIH Guideline Sections: Not Applicable
      Status: Unanimous vote to approve addendum

      The purpose of this addendum is to include the use of a commercially available Live Attenuated Influenza Virus (LAIV) and add iPSC-derived neural and cardiac organoids. Addendum needs to be signed by faculty PI before submission. An application to use these iPSC-derived organoids was also submitted to and conditionally approved by the Buck SCRO committee. This BUA addendum was approved for BSL2 research.

6. Review of BUA Renewal Applications
   a. BUA#: IBC-00000029
      Title: Neurological Diseases, Triplet Repeat Diseases and Aging
      PI: Lisa Ellerby
      Type: 3-year Renewal
      Reviewers: Full Committee
      NIH Guideline Sections: III-D-4-a, App C-II, App C-III, App C-VII, App C-VIII
      Status: Unanimous vote to conditionally approve BUA renewal with minor corrections

      The IBC reviewed this 3-year BUA renewal and unanimously voted for conditional approval with minor corrections. Revisions for final approval include:
      i. Update source of transgenic mice.
      ii. Check appropriate box in Breeding Tg Animals section.
      iii. Update source and replication competence for AAV and lentivirus.
      iv. Update exposure routes for virus work.
      v. Select rooms for all toxins.
      vi. Complete personnel experience for all researchers.
      vii. Fix various minor typos in Toxins Additional Detail and Methodology sections.

b. BUA#: IBC-00000030
   Title: Molecular Mechanisms of How Nutrition Regulates Lifespan
   PI: Pankaj Kapahi
   Type: 3-year Renewal
   Reviewers: Full Committee
   NIH Guideline Sections: III-D-4, III-E-3, III-F, III-F-8, App C-I, App C-II, App C-III, App C-VIII
   Status: Unanimous vote to conditionally approve BUA renewal if *C.elegans* will not be used. Otherwise, conditional approval is deferred until after further review by the IBC.

   The IBC reviewed this 3-year BUA renewal and unanimously voted for conditional approval with minor corrections. However, it was noted that this lab may start a project with *C.elegans*, and if so, the BUA application would need to be resubmitted for review before final approval. The Chair will reach out to the lab for clarification on this potential research. Revisions for final approval include:
      i. PI name needs to be updated.
      ii. Update the Project Description to include mouse research and address other minor review comments.
      iii. Methodology should include descriptions of how each biological toxin is used.
      iv. Minor updates in the Work Practices section.

c. BUA#: IBC-00000031
   Title: Vivarium Research Support
   PI: Cary McDonald
   Type: 3-year Renewal
   Reviewers: Full Committee
   NIH Guideline Sections: Not Applicable
   Status: Unanimous consensus to delay vote to approve BUA renewal until edits have been made.

   The IBC reviewed this 3-year BUA renewal and determined that more information was needed before we could hold a vote to approve. The vivarium houses all of the animal research at the Buck, but the vivarium staff do not perform any experiments themselves. All research involving rodents is reviewed by the Buck IACUC and is covered by each laboratory's BUA. As directed by the IACUC, vivarium staff will only intervene in cases of unattended or distressed rodents. All housing cages are clearly marked with any potential biological hazard. Revisions for final approval include:
      i. Update Project Description and Methodology sections to include daily tasks of vivarium staff and precautions to keep staff safe from animal experiments.
      ii. Minor typos in Toxin Additional Detail and Methodology sections.
      iii. Add Formalin and Isoflurane to chemical inventory and list them in the Toxin section. All listed toxins need to be selected in the Facilities section.

7. Review of New BUA Applications
   a. BUA#: IBC-00000019
      Title: Buck Institute Clinical Research Unit Biohazardous Substances Containment Practices to Help Minimize Occupational Exposure to Biohazards
      PI: John Newman
      Type: New Application
      Reviewers: Full Committee
      NIH Guideline Sections: Not Applicable
      Status: Unanimous consensus to delay vote to approve BUA application until after revision.

      Project description: The clinical research unit (CRU) studies the biology of ketone bodies, natural compounds that our bodies make and use for energy when we fast or exercise, GLYLO - a commercially available combination of glycation-lowering compounds that are GRAS (generally recognized as safe) by the FDA as well as observation studies in older adults. The major ketone body is beta-hydroxybutyrate or BHB. There are five unique projects within the CRU: Bike, STAK, TAKEOFF, GRACE, and TIME studies. The CRU is also initiating the BIG Biobank project which strives to collect, maintain, and share coded biospecimens and data from volunteers in the community. This involves participant recruitment, screening and consent, data collection, biospecimen collection and processing, appropriate storage of data and samples, and distribution of de-identified samples and data.

The IBC discussed the need to include additional reviewers who have expertise in clinical research. Malene Hansen, Birgit Schilling, and Chris Endicott will reach out to colleagues who may be able to assist. Revisions noted at this time include:

i. Need to clarify who has access to lockbox containing medical emergency substances and who is authorized to distribute them.
ii. Need to verify whether list of clinical SOPs is approved and should be attached.
iii. Attach updated chemical inventory.
iv. Update new hires in Personnel section.

b. BUA#: IBC-00000028
Title: Mitochondria and Bioenergetics in Aging and Aging-Related Diseases
PI: Akos Gerencser
Type: New Application
Reviewers: Full Committee
NIH Guideline Sections: III-D-1, III-D-2, III-E-1, III-F-1, III-F-2, III-F-3, III-F-4, App C-I, App C-II
Status: Unanimous vote to conditionally approve BUA renewal with minor corrections

This new BUA application seeks to study underlying causes of type II diabetes and Alzheimer's disease by investigating various cellular and biochemical mechanisms. Plasmid constructs, obtained from commercial sources or from other labs, will be used on their own to directly transfect cultured cells using lipofection or electroporation, or after subcloning coding sequences of genes of interests into lentiviral or adenoviral plasmids. They will generate lentiviruses or adenoviruses with standard commercial kits or by vendors. Plasmids are amplified by standard lab techniques using *E. coli*. They will use Cas9/CRISPR technologies to manipulate specific gene expression. For this, modified one-piece gsRNA molecules are used from a commercial source. Revisions for final approval include:

i. Need to include Buck Institute core funding.
ii. Need to include Safety Data Sheets (SDS's) for each listed toxin.
iii. Experimental uses for each toxin should be described in the Methodology section.
iv. Chemical inventory needs to include specific room numbers.

8. New Items
   a. None

9. Other Items
   a. The Chair showed the IBC the newly created Buck Institute webpage where the IBC meeting minutes are being posted.

10. Meeting Adjourned
    a. The meeting adjourned at 1:57pm.

2025 IBC meeting dates: February 19, May 14, July 31, November 7