Vanderbilt University Medical Center
Institutional Biosafety Committee (MC IBC) Minutes
February 24, 2026
Virtual Meeting

Attendance

Voting Members (Quorum = 7 voting members)

- ☒ Mark Boothby
- ☒ Alexandra Elliott (BSO)
- ☒ Iuliia Gilchuk
- ☒ Izumi Kaji
- ☐ Rachelle Johnson
- ☐ Danyvid Olivares-Villagomez
- ☒ Ana Nobis
- ☒ Jonathan Schmitz, Chair
- ☐ Kate Shuster
- ☒ Cara Sutcliffe
- ☒ Julie Viruez
- ☒ April Weissmiller
- ☒ Paula Spitzler

Non-Voting Members & Guests

- ☒ Rich DiTullio
- ☒ Chris Svitek
- ☒ Venita White
- ☒ Maria Garner
- ☒ Bettye Ridley
- ☒ Kevin Warren

Call to Order/Introductions/Announcements

The February meeting was held virtually by an internet-based meeting platform. The meeting was called to order at 12:01pm.

The BSO reported on two incidents. The first incident involved a researcher trying to scrape off a piece of tissue glued to a slide with a scalpel. The scalpel slipped and the researcher cut their finger. The lab is looking into non sharp methods to remove the glue from the slides. This was not NIH reportable.

In the second incident, a researcher was collecting blood from mice that had received human blood from HIV positive patients that had tested negative for HIV due to antiviral therapies. The researcher was reusing needles between mice and one of them fell from the holding container and stuck their hand. The researcher is being medically evaluated and the lab will now use a separate needle for each mouse and dispose of each in a sharps container after use. This was not NIH reportable.

Minutes Review/Approval

The Chair opened the floor for comments or proposed revisions of the minutes from the January 2026 meeting. The Committee voted to approve the minutes as presented.

Protocol Reviews

Kirabo, Annet – Medicine
TOPAZ Ref. # 100136 – Tissue Sodium, Salt Sensitivity, and Immune Cell Activation (MODIFICATION)

Lab Description (as stated by PI): The overall goal of our research is to define the mechanisms contributing to variability in the blood pressure response to sodium. We will use the Weinberger protocol using the difference in salt-loading and salt-depletion to classify participants as salt-sensitive or salt-resistant and measure interstitial sodium with MRI as well as serum and urine electrolytes. We will isolate monocytes to examine markers of immune cell activation using flow cytometry. Additionally, we will adoptively transfer monocytes from salt-sensitive or salt-resistant participants into immunodeficient mice to investigate immune cell mechanisms in saltsensitive blood pressure regulation.

NOTE: The registration has been amended to include the addition of human fecal samples which will be administered to mice on the PI's previously approved animal protocol IACUC# M1800059. This research activity will require ABSL-2 practices and containment.

Committee review: This amendment adds the use of human fecal samples. They will be processed and administered to mice as part of microbiome studies.

The Committee voted to approve the registration at the biosafety levels recommended.

NIHG activity category: N/A, HDM/infectious agent risk only

Knapik, Ela – Genetic Medicine

TOPAZ Ref. # 100354 – Molecular Mechanisms of Protein Transport and Secretion in Zebrafish Model (RENEWAL)

Lab Description (as stated by PI): The long-term objective of our research is to understand molecular, genetic and cellular bases of skeletal, cardiovascular and other connective tissue diseases. We have identified several mutations in our animal model, zebrafish, which will help us to discover how these diseases develop. Furthermore, our studies will contribute to better understanding, diagnosis and treatment of human conditions. Craniofacial birth defects are the most frequent human dysmorphology, e.g., cleft palate and lip syndrome. However, for many of these developmental defects we do not know the underlying causes. Furthermore, the understanding cellular metabolism and particularly protein transport and secretion mechanisms will be instrumental in understanding of adult degenerative diseases e.g., degenerative joint disease, osteoporosis, Alzheimer's disease. The knowledge obtained during this study will directly benefit broad areas of human health.

Committee review: The lab propagates many genes of interest in non-pathogenic *E. coli.* These constructs are used to generate transgenic zebrafish and plasmid constructs are also administered to those zebrafish.

BSL-1 practices and containment are recommended for rDNA work in non-pathogenic *E. coli*. Standard zebrafish housing and ABSL-1 practices are recommended for the breeding and experiments with zebrafish.

The Committee voted to approve the registration at the biosafety levels recommended

NIHG activity category: III-D-4-a, III-F-8/ Appendix C-II

Penn, John – Vanderbilt Eye Institute
***TOPAZ Ref. # 100342 – Molecular Mechanisms of Ocular Inflammation and Neovascularization* (RE*NEWAL*)**

Lab Description (as stated by PI): The early stages of diabetic retinopathy are characterized by a chronic low-grade retinal inflammation. Our research focuses on the characterization of molecular mechanisms that cause diabetes associated retinal inflammation and their blockade to reduce disease progression. Abnormal blood vessel growth in the retina occurs in several eye diseases such as age-related macular degeneration, diabetic retinopathy, and retinopathy of prematurity. This abnormal growth leads to vascular structures that can produce blindness in affected individuals. The main objective of this research is to discover new therapies that could block this abnormal blood vessel growth.

Committee review: The lab propagates many genes of interest in non-pathogenic *E. coli* and expresses them in murine and human-derived cells using expression plasmids, adeno-associated viral vectors and adenoviral vectors. In addition to culturing human cells, the lab obtains samples of patient ocular tissue for analysis.

In animal experiments, the lab breeds transgenic rodents.

BSL-1 practices and containment are recommended for rDNA work in non-pathogenic *E. coli* and handling of adeno-associated viral vectors. BSL-2 practices and containment are recommended for work with adenoviral vectors and human-derived cells. Personnel working with human-derived materials should adhere to the practices of the VUMC HDM/BBP in Basic Research Policy.

The Committee voted to approve the registration at the recommended biosafety levels.

NIHG activity category: III-D-3-a, III-E-1, III-F-8/Appendix C-II, C-VIII

Pozzi, Ambra – Nephrology
TOPAZ Ref. # 100358 – Analysis of Receptor Tyrosine Kinases in Kidney Disease (RENEWAL)

Lab Description (as stated by PI): The goal of our research is to use animal and cell culture systems to define how receptor tyrosine kinases control fibrotic processes. To do this, we will use several techniques (e.g. ELISA, Western Blots, PCR, cloning, mutagenesis) to identify the signaling activated by receptor tyrosine kinases in eukaryotic cells. To do this we will use human and mouse eukaryotic cells, non-pathogen E. Coli for protein expression and plasmid amplifications, so that we can express and/or downregulate wild type and/or mutated receptors as well as their downstream signaling molecules. In addition, we will use mouse tissues, mouse plasma, mouse urine to identify biomarkers linked to a particular disease we study. Finally, we will use paraffin sections of human tissues from donors or subjects with disease to validate the findings obtained with cells and/or mouse systems.

Committee review: The lab propagates many genes of interest in non-pathogenic *E. coli* and expresses them in murine and human-derived cells using expression plasmids and adeno-associated viral vectors. In addition to culturing human cells, the lab obtains samples of patient tumor tissue and urine for analysis.

In animal experiments, the lab breeds transgenic rodents.

BSL-1 practices and containment are recommended for rDNA work in non-pathogenic *E. coli* and handling of adeno-associated viral vectors. BSL-2 practices and containment are recommended for work with adenoviral vectors and human-derived cells. Personnel working with human-derived materials should adhere to the practices of the VUMC HDM/BBP in Basic Research Policy.

The Committee voted to approve the registration at the biosafety levels recommended.

NIHG activity category: III-E-1, III-F-8/Appendix C-II, C-VIII

Administrative Reviews / IBC Notification: The Chair opened the floor for comments on the administrative reviews. These reviews included:

Principal Investigator	VBMR#	Modification Summary
Chen, Jin	100249 V3	Personnel updates
Crowe, James	100309 V10	Personnel updates, addition of VSV strains similar to those previously approved
Georgiev, Ivelin	100340 V3	Addition of a plasmid and two bacterial genes similar to those previously approved
Hurley, Paula	100352 V2	Personnel updates
Ikizler, Talat	100234 V7	Personnel updates
Weiss, Vivian	100235 V7	Addition of human cell lines, administration in an animal model (M2000095). Previously approved for similar materials and activities.
Wilson, Keith	0062 R4	Additon of a new IACUC protocol (M2600003); previously approved for similar materials and activities. Updated ABSL2 form included.

The Committee approved the administrative updates as presented. Drs. Boothby and Gilchuk declared a conflict of interest and were not present for the pre-vote discussion or vote.

Adjournment

The meeting was adjourned at 12:34 pm.