CHAPMAN UNIVERSITY | Environmental Health and Safety

Institutional Biosafety Committee
Meeting Minutes
Monday, June 8, 2026
Zoom online and RK-94 130

Quorum = 6

PRESENT	**Department/IBC Affiliation**
Rosalee Hellberg, Ph.D.**, Chair**	Program Director, Food Science Professor, Food Science, Schmid College of Science and Technology
Chuck Sohaskey, Ph.D.	EHS / Biosafety Officer
Karen Swift, B.S.	Manager, EHS, Chemical Hygiene Officer
Bruce Webster, Ph.D.	Community 1
Jason Yamaki, Pharm.D., Ph.D.	Associate Professor, School of Pharmacy
Bill Peacher	Community 2
Ashley Whelpley	Assistant Director of Lab Operations, Schmid College of Science and Technology
Hagop Atamian, Ph.D.	Associate Professor of Biology, Schmid College of Science and Technology
Gio Bravo	Vivarium Supervisor
Cecilia Lopez	Assistant Professor, Schmid College of Science and Technology
Zain Tariq	Chemical Inventory Technician
EXCUSED	
Marco Bisoffi, Ph.D. **Alt**	Associate Professor of Biochemistry and Molecular Biology, College of Science and Technology
Trinka Adamson	IACUC Veterinarian
Kimberly Muth	Assistant Director of Operations, Office of Research

I. MEMBERSHIP ISSUES

New member – We have had 2 new members this year, so we did introductions. The committee voted to reappoint Bill Peacher and Hagop Atamian to the IBC and they agreed to continue.

II. REVIEW and approval of the minutes of the June 9, 2026 meeting.

III. IBC CHAIRPERSON REPORT

Nothing to report.

IV. BIOSAFETY OFFICER REPORT

2023-6-1. Glineburg, Rebecca. Generation of plasmids for transgenic Drosophila line creations. Closed

Update on the **NIH Policy on Enhancing Security Measures for Human Biospecimens**. Chapman must make sure that all human biospecimens are secure which might require that a record of these specimens be kept. The BSO was also made aware that the IRB is also dealing with issues of biospecimens security.

There was no biosafety incidents reported since last meeting.

The IBC committee with new membership was registered with NIH and is pending approval.

V. INITIAL PROJECT REVIEWS

2026-6-1 Muth, Kimberly. Targeted Visualization of Endometriotic Lesions Using Tenascin-C–Binding Peptide in a Nude Mouse Model

- *Muth (BUA) - Targeted Visualization of Endometriotic Lesions Using Tenascin-C–Binding Peptide in a Nude Mouse Model.*

The objective of this study is to evaluate whether a peptide can selectively target endometriotic lesions *in vivo*. The experimental model involves the injection of a human endometriotic epithelial cell line into mice, followed by monitoring to confirm the formation of ectopic lesions. Upon successful establishment of lesions, a non-toxic peptide with a fluorescent tag will be administered to assess targeting efficacy. This study does not involve recombinant DNA; therefore, NIH classification is not required. The project is categorized as Risk Group 2 due to the use of human cell lines. No handling of human cells by the vivarium staff so no hepatitis B vaccine is required. Gio left the meeting before the vote and returned afterwards. The committee voted unanimously to approve the project with the stipulation that all safety training be completed and documented in Table 66.

2026-6-2 Citterio, Cintia. Thyroid Physiology and Disease

- Citterio (BUA) - Thyroid Physiology and Disease

This project will investigate the mechanisms underlying human thyroid hormone imbalance, with a specific focus on thyroglobulin (Tg). Tg serves as the precursor protein for thyroid hormone synthesis and contains specific tyrosine residues that undergo iodination and coupling to form the hormones T3 and T4. To study expression and secretion, full-length mouse thyroglobulin, and its C-terminal domain, will be expressed in human embryonic kidney (HEK293T) cells and rat thyrocyte (PCCL3) cells. In addition, a previously generated transgenic mouse model expressing a mutant thyroglobulin knock-in will be utilized to assess physiological effects *in vivo*.
This work is classified as Risk Group 2 due to the use of human-derived cell lines and is NIH III-E. Personnel will be offered the hepatitis B vaccination. The committee voted unanimously to approve the project with these stipulations:

1. Page 1 - Correct the IBC number to 2026-6-2
2. Table 15 column d for Liposomal is not answered.
3. Question 36 should be corrected.

4. The room number should be provided in Table 22, 23 and 24.

2026-6-3 Elshahawi, Sherif. Natural Products Isolation and Characterization
- Elshahawi (BUA) - Natural Products Isolation and Characterization
- Elshahawi Exposure Control Plan
This project involves the isolation of antibiotic-producing bacteria from soil samples collected in unique environments. Crude extracts will be prepared and screened against a range of pathogenic microorganisms, including fungi, to assess potential growth inhibition. Extracts will also be evaluated for activity against 5 human cancer cell lines.
There is potential risk from the unknown bacteria, but the main risk is the known pathogens used in screening. Some are drug resistant. This study does not involve recombinant DNA; therefore NIH classification is not required. The project is categorized as Risk Group 2 (RG-2). The workers have already been identified as covered by the hep B vaccine requirement. The committee voted unanimously to approve the project with these stipulations:
1. Page 1 - Correct the IBC number to 2026-6-3
2. Question 14 should be yes since the lab might clone biosynthetic genes in *Streptomyces*.
3. Table 11 – The Streptomyces species are all Risk Group 1.
4. Question 52 – should be yes for the use of dichloromethane.
5. Bloodborne pathogen training is required annually so the training is Table 66 should be updated.

2026-6-4 Yang, Sun. Effects of nNOS inhibitors on melanoma-induced immunosuppression
- Yang (BUA) Effects of nNOS inhibitors on melanoma-induced immunosuppression
This project will evaluate the effects of nNOS (neuronal nitric oxide synthase) inhibitors on T cell–mediated immunotherapy in melanoma. Human peripheral blood obtained from commercial sources will be used to isolate $CD3^+$ T cells. These T cells will be co-cultured with human melanoma A375 cells to model the tumor microenvironment. Then T-cells will be re-isolated and their functional responses analyzed. For Aim 3, human THP-1 cells will be co-cultured with pre-stained A375 melanoma cells. After co-culture, the two cell populations will be separated and analyzed by flow cytometry to assess macrophage polarization, distinguishing between M1 (anti-tumor) and M2 (pro-tumor) phenotypes.
This study does not involve rDNA; therefore, no NIH Guidelines classification is required. The project is classified as Risk Group 2 due to the use of human-derived cells. The Hep B vaccine has already been offered to the lab. The committee voted unanimously to approve the project with the stipulation that for question 39 the Outside company for waste pick up box be checked and the years in Table 66 be corrected.

2026-6-5 Hellberg, Rosalee. Single-Laboratory Validation for the Detection of *Salmonella enterica* in Meat Analog Products
- *Hellberg (BUA) - Single-Laboratory Validation for the Detection of Salmonella enterica in Meat Analog Products*
- Hellberg - Food Protection Lab Exposure Control Plan
- Hellberg – Biosafety Level 2 Safety Requirements and Operations Manual

The purpose is to optimize the procedure for the detection of *Salmonella enterica* in meat analogs. Meat analogs samples will be inoculated with *S. enterica* and incubated at -20ºC for 2 weeks. Then they will be enriched by various methods and bacterial levels assessed using immunological (VIDAS), PCR, and loop-mediated isothermal amplification (LAMP) techniques. Subsequently, bacteria will be isolated using standard selective media, and colonies will be confirmed by PCR to verify identity.
This study does not involve recombinant DNA; however, because it involves a human pathogen, it is classified as a Risk Group 2 project. Rosalee explained the project and answered questions then left the meeting before the vote. The committee voted unanimously to approve the project.

VI. CONTINUING PROJECT REVIEWS

2025-3-2. Hellberg, Rosalee. Disinfection of enterotoxigenic *Escherichia coli* (ETEC) on food contact surfaces using the Contamination Sanitization Inspection and Disinfection (CSI-D) system

- Hellberg (BUA) - Disinfection of enterotoxigenic *Escherichia coli* (ETEC) on food contact surfaces
- Food Protection Lab Exposure Control Plan
- Hellberg – Biosafety Level 2 Safety Requirements and Operations Manual

The objective of this study is to determine the optimal settings for disinfection of enterotoxigenic *Escherichia coli* (ETEC), *Salmonella enterica* and *Listeria monocytogenes* on surfaces using the Contamination Sanitization Inspection and Disinfection (CSI-D) system (SafetySpect, Inc.). The CSI-D system is a hand-held system that detects microbial contamination using fluorescence imaging and disinfects using UVC illumination. Bacteria cultures will be grown to approximately 10^8 CFU/mL, then diluted and applied to a range of surface types, including Petri dishes, glass, and stainless steel. Biofilms grown in bioreactor will also be tested. The CSI-D system will subsequently be evaluated to identify the most effective disinfection settings across these materials.
This study does not involve recombinant DNA; however, it includes the use of a Risk Group 2 pathogen and is therefore classified as an RG-2 project. There is no use of human cells in this work; accordingly, hepatitis B vaccination is not required. Rosalee returned to the meeting to explain this protocol and again left before the vote. The committee voted unanimously to approve the project. Rosalee returned to the meeting before the next project review.

2025-6-1 Totonchy, Jennifer. KSHV infection in human tonsil

- *Totonchy (BUA) - KSHV infection in human tonsil*
- *Totonchy KSHV Virion Prep protocol.2025*
- *Totonchy Laboratory Bloodborne Pathogen Exposure Control Plan.2025*
- *Totonchy Gene list.2025*

This research utilizes primary human cells derived from tonsil tissue to investigate the early stages of Kaposi's sarcoma herpesvirus infection (KSHV). Primary cells are isolated and maintained using irradiated mouse L cells as feeder cells. Human and viral genes are cloned into *E. coli*, and these constructs are introduced into human cells using replication-defective adenoviral and lentiviral vectors. A major component of the study involves generating mutant forms of KSHV using two complementary approaches. First, the KSHV genome will be cloned as a bacterial

artificial chromosome (BAC) in *E. coli*, genetically modified, and then transfected into human cell lines to produce infectious viral particles. Second, CRISPR-Cas9 technology will be employed to introduce targeted mutations into viral genomes within human cells.

Both wild-type KSHV and replication-defective viral vectors will be used and so the work falls under NIH Guidelines III-D and requires Institutional Biosafety Committee (IBC) approval prior to initiation. The study involves primary human cells, as well as established human and mouse cell lines, and is classified as a Risk Group 2 project. The primary biosafety concern is associated with fluorescence-activated cell sorting (FACS) of virus-containing samples. Due to the use of human-derived materials, personnel will be offered the hepatitis B vaccination. The human cells in this project might need to be tracked for security reasons according to the NIH. The committee voted unanimously to approve the project.

2024-6-2 Owens, Cedric. Improving Sunflower Protein Functionality and Quality By Modulating Polyphenol-Protein And Thiol-Protein Conjugation

- *Owen**s** Were (BUA)* - Improving Sunflower Protein Functionality and Quality By Modulating Polyphenol-Protein And Thiol-Protein Conjugation

Sunflower meal represents a promising food ingredient; however, its commercial applicability is limited due to interactions between proteins and phenolic compounds. The objective of this study is to modify the chemical composition of sunflower proteins to improve their functional and nutritional properties for food processing applications. Esterases cloned from *Lactobacillus helveticus* and *Lactobacillus johnsonii* will be used to treat sunflower meal and alter these interactions.

This work is classified under NIH Guidelines Section III-F and involves Risk Group 1 organisms. No human cells are used in this study; therefore, hepatitis B vaccination is not required. The committee voted unanimously to approve this project with the stipulation that the column B of table 11 be corrected and Cedric complete required safety training in LearnUpon.

2025-6-2 Miklavcic, John. Extracellular Vesicles from Enterocytes are Mediators of Inflammation in IBD

- *Miklavcic (BUA) Extracellular Vesicles from Enterocytes are Mediators of Inflammation in IBD*

The central hypothesis of this study is that extracellular vesicles (EVs) produced by inflamed enterocytes contribute to key features of inflammatory bowel disease, including enhanced inflammatory signaling, increased intestinal permeability, and impaired enterocyte migration. The first objective is to identify the miRNA signature of EVs. Human C2BBe1 cells will be cultured on transwell inserts to establish apical and basolateral compartments that model the intestinal epithelial barrier. Cells will be treated with lipopolysaccharide (LPS), a TLR4 agonist, to induce an inflammatory response that mimics IBD conditions. After 24 hours of stimulation, culture media from both apical and basolateral compartments will be collected to isolate and characterize EVs. These vesicles will then undergo transcriptomic analysis to profile their miRNA content. The second objective is to determine how EVs contribute to hallmark features of IBD. Isolated EVs will be applied to naïve C2BBe1 cells, and subsequent production of inflammatory mediators will be measured to assess their functional impact.

There is no rDNA work other than the transcriptomic analysis so it is NIH III-F. The study involves established human cell lines, and is classified as a Risk Group 2 project. The hepatitis B vaccination will be offered. The committee voted unanimously to approve this project with the stipulation John complete required safety training in LearnUpon.

2024-6-1 Parang, Keykavous. Evaluation of antibacterial and antifungal activities of peptides
- *Parang (BUA)* - Evaluation of antibacterial and antifungal activities of peptides
- *Parang Exposure control plan for C. auris*
This project involves the characterization of a novel antimicrobial peptide developed by the lab. To evaluate its antimicrobial efficacy, standard MIC assays will be performed against a diverse panel of microbial species, including both bacterial and fungal organisms. In addition, a tetrazolium-based assay will be used to assess cytotoxicity in human cell lines. The primary pathogen of interest is *Candida auris*, an emerging fungal pathogen of significant clinical concern due to its multidrug resistance and impact on immunocompromised patients.
This study does not involve rDNA however, the use of *C. auris* classifies the project as Risk Group 2. Due to the inclusion of human cells, everyone will be offered the hepatitis B vaccination. Jason left the meeting before the vote because he is listed as an authorized personnel. The committee voted unanimously to approve the project with the stipulation that all safety training be completed and documented in Table 66.

VII. OTHER BUSINESS

No other business

VIII. NEXT MEETING

Next meeting is scheduled for September 8, 2026, at the Orange campus.