Caltech

California Institute of Technology
Administrative Committee on Biosafety
Minutes of the Institutional Biosafety Committee (IBC)

Date: February 3, 2026 **Time: 2:30 PM** **Location: Zoom Videoconference**

Voting Members:	R. Ismagilov, M. Doshi, L. Cai, W. Gao, L. Quenee, N. Siladke, M. Barsever, K. Lencioni, C. Cortese, E. Hisserich, F. Chen, M. Coleman
Nonvoting:	2 attendees
Guests:	2 attendees
Other:	1 attendee

Called to order at 2:33 pm, with a quorum in attendance.

1. Announcements
2. Old Business
   A. Protocols - Approved Pending Modifications, Modifications Complete

   The following protocols were previously approved pending implementation of additional IBC-required modifications at the December 11 meeting. The modifications have been completed/implemented and the protocols are approved:

Protocol:	24-296-A3	Amendment	Expiration Date:	3/12/2027
Title:	Mechanisms of interaction between gut microbiota and the immune system and nervous system			
PI Name:	Mazmanian			
Modifications Completed: 12/18/2025				

Protocol:	25-270-A2	Amendment	Expiration Date:	5/12/2028
Title:	Adeno-associated viral (AAV) vectors in animals for visualizing host-microbe interactions in the brain and gut			
PI Name:	Mazmanian			
Modifications Completed: 12/18/2025				

Protocol:	26-207	De Novo	Expiration Date:	1/12/2029
Title:	Molecular Engineering of Non-Invasive Biological Interfaces			
PI Name:	Shapiro			
Modifications Completed: 12/19/2025				

Protocol:	25-315-A1	Amendment	Expiration Date:	6/12/2028
Title:	Genome Engineering in Bacteria			
PI Name:	K. Wang			
Modifications Completed: 12/19/2025				

Protocol:	23-292-A4	Amendment	Expiration Date:	11/12/2026
Title:	Bioelectronic devices for personalized medicine			
PI Name:	Gao			
Modifications Completed: 1/20/2026				

B. Protocol - Approved Pending Modification, Modification Pending

The following protocol was previously approved pending implementation of additional IBC-required modifications at the December 11 meeting. Modifications required to continue BSL2 work have not been completed.

Protocol:	26-279	De Novo	Expiration Date:	2/10/2026
Title:	Developing Biosensors to Study Drug Addiction in the Brain			
PI Name:	Lester			
Anticipated Completion: 2/9/2026				

3. New Business

A. Approval of Minutes: December 11, 2025

The December 11 meeting minutes were approved by a majority of the IBC. There were 2 abstentions from members who were not present at the December 11 meeting.

B. Protocols – Full Committee Review

Protocol:	26-210	De Novo	Expiration Date:	3/10/2026
Title:	Roles of RGD containing peptides to retinal cell functions			
PI Name:	Kornfield			
Brief Description of Project: RGD peptide sequence is known to allow protein binding to cell membranes and regulation of extracellular matrix and cell interaction mechanisms. The study involves investigation of cellular gene and protein expression to understand the mechanism of action of RGD-containing peptides.				
Biological Materials Review Summary: This project involves the use of RG1 bacteria (E. coli, B. subtilis, non-pathogenic Pseudomonas strains), animal tissues, and various human cell lines.				
NIH Guidelines:	III-E, III-F	Highest BSL Level:	BSL2	
Training: This protocol requires the following biosafety training: Basic Principles of Biosafety (BSL1) or Comprehensive Biosafety (BSL2) and annual Bloodborne Pathogens Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been				

completed and documented.
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.
IBC Action/Decision: Approved
❖ The committee reviewed and unanimously approved this protocol subject to adherence to the standard stipulations.

Protocol:	25-392-A1	Amendment	Expiration Date:	5/12/2028
Title:	FUA Beckman Asymptote for Gene Therapy Startup			
PI Name:	Wheeler (Asymptote)			
Brief Description of Project: Asymptote will conduct in vitro work that includes testing replication-defective therapeutic AAV vectors and the use of commercially sourced lentiviral constructs for gene delivery to human cell lines. We also process fixed as well as non-fixed animal tissue derived from animals with prior exposure to therapeutic AAV vectors >4 weeks after dosing.				
Biological Materials Review Summary: Work with lentiviral vectors and animal samples is performed at BSL-2 with BSL-3 practices.				
NIH Guidelines:	III-D-3	Highest BSL Level:	BSL2 w/ BSL3 practices	
Training: This protocol requires the following biosafety training: Comprehensive Biosafety (BSL2), annual Bloodborne Pathogens and Viral Vector Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.				
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.				
IBC Action/Decision: Approved				
❖ The committee reviewed and unanimously approved this protocol subject to adherence to the standard stipulations.				

Protocol:	23-286-A1	Amendment	Expiration Date:	6/12/2026
Title:	Physical Biology of the Cell			
PI Name:	Phillips			
Brief Description of Project: This amendment includes a project to investigate the regulatory landscape of *P. aeruginosa*.				
Biological Materials Review Summary: This amendment includes *P. aeruginosa*.				
NIH Guidelines:	III-D1	Highest BSL Level:	BSL2	
Training: This protocol requires the following biosafety training: Basic Principles of Biosafety (BSL1) or Comprehensive Biosafety (BSL2) Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.				
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.				
IBC Action/Decision: Approved				
❖ The committee reviewed and unanimously approved this protocol subject to adherence to the standard stipulations.				

C. Protocols - Expedited Review

Protocol:	24-299-A4	Amendment	Expiration Date:	12/17/2025	
Title:	Membrane Protein Characterization				
PI Name:	Clemons				
Brief Description of Project: This project aims to test the inhibition of Gram-negative and Gram-positive bacterial growth in the presence of varying drug/antibiotic concentrations in a disk diffusion assay.					
Biological Materials Review Summary: We will use *Staphylococcus carnosus* TM300 (aka DSM 20501 or ATCC 51365) as a Gram-positive model bacterial strain in disk diffusion and liquid MIC assays to determine if our drugs of interest have an effect on Gram-positive bacterial growth.					
NIH Guidelines:	III-D	Highest BSL Level:	BSL2 w/ BSL3 practices		
Training: This protocol amendment requires the following biosafety training: Basic Principles of Biosafety (BSL1) or Comprehensive Biosafety (BSL2) Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.					
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.					
IBC Action/Decision:	Chair Approved				
❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.					

Protocol:	24-314-A2	Amendment	Expiration Date:	12/12/2027	
Title:	Computational protein Design – in vitro testing phase.				
PI Name:	Mayo				
Brief Description of Project: This amendment incorporates materials for several projects that will be starting this year, including an expansion of the tonsil organoid project, flow cytometry of T1D mice, evaluation of osteogenic potential of extracellular vesicles, and nitrogenase-related studies of *Azotobacter vinelandii*.					
Biological Materials Review Summary: This is an amendment to add multiple human primary samples, human cell lines, murine primary samples, and *Azotobacter vinelandii*.					
NIH Guidelines:	III-D	Highest BSL Level:	BSL2		
Training: This protocol amendment requires the following biosafety training: Comprehensive Biosafety (BSL2), annual Bloodborne Pathogens and Viral Vector Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.					
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.					
IBC Action/Decision:	Chair Approved				
❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.					

Protocol:	24-379-A1	Amendment	Expiration Date:	6/12/2027	

Title:	Phosphatidylserine Induced Tolerance in Mice		
PI Name:	Hay		
Brief Description of Project: This amendment includes the addition of a Co-PI and their lab rooms and updates to personnel.			
Biological Materials Review Summary: No changes in biological materials.			
NIH Guidelines:	III-D	Highest BSL Level:	BSL2
Training: This protocol amendment requires the following biosafety training: Comprehensive Biosafety (BSL2) and Viral Vectors Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.			
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.			
IBC Action/Decision:	Chair Approved		
❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.			

Protocol:	25-261-A2	Amendment		Expiration Date:	5/12/2028
Title:	Engineering and evaluation of anti-viral therapeutics in vivo and in vitro				
PI Name:	Bjorkman				
Brief Description of Project: This amendment is to add human samples from individuals either vaccinated or previously infected with SARS-CoV-2 to use as a baseline for future evaluation of the efficacy of immunization with our clinical trial vaccine candidate.					
Biological Materials Review Summary: This amendment includes the addition of serum/plasma (heat-inactivated) and PBMC samples from healthy human donors.					
NIH Guidelines:	III-D		Highest BSL Level:		BSL2 w/ BSL3 practices
Training: This protocol amendment requires the following biosafety training: Comprehensive Biosafety (BSL2) and annual Bloodborne Pathogens Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.					
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.					
IBC Action/Decision:	Chair Approved				
❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.					

Protocol:	25-351-A1	Amendment		Expiration Date:	5/12/2028
Title:	Beacon Center for Single Cell Biology				
PI Name:	Malecek (Beacon)				
Brief Description of Project: This amendment is to update the cell types we can receive from collaborators for work in our center.					
Biological Materials Review Summary: This amendment includes additional human cell types to be handled at BSL2.					
NIH Guidelines:	rDNA work under user IBC		Highest BSL Level:		BSL2
Training: This protocol amendment requires the following biosafety training: Comprehensive Biosafety					

(BSL2) and annual Bloodborne Pathogens Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.
IBC Action/Decision: Chair Approved
❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.

Protocol:	25-395-A1	Amendment		Expiration Date:	10/12/2028
Title:	Dynamics of bacterial communities in complex fluids				
PI Name:	Datta				
Brief Description of Project: This amendment is to include additional BSL1 bacteria.					
Biological Materials Review Summary: This amendment includes an additional genetic variant of a previously approved BSL1 bacteria (*B. subtilis*) and the addition of two variants of a newly added BSL1 bacteria (*Azotobacter vinelandii*).					
NIH Guidelines:	III-D, III-E, III-F		Highest BSL Level:		BSL2
Training: This protocol amendment requires the following biosafety training: Basic Principles of Biosafety (BSL1) or Comprehensive Biosafety (BSL2) Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.					
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.					
IBC Action/Decision: Chair Approved					
❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.					

Protocol:	24-333-A1	Amendment		Expiration Date:	2/12/2027
Title:	OLAR Core Animal Facilities Biosafety Procedures				
PI Name:	Lencioni (OLAR)				
Brief Description of Project: This amendment adds work with a diabetic infected wound-healing animal model to assist a Caltech lab with evaluation of a hydrogel-based wound management device.					
Biological Materials Review Summary: This protocol involves the use of animals in a diabetic wound-healing model. Biological materials include controlled wound infections using Methicillin-sensitive Staphylococcus aureus (MSSA).					
NIH Guidelines:	N/A		Highest BSL Level:		ABSL2
Training: This protocol requires the following biosafety training: Comprehensive Biosafety (BSL2) or approved equivalent OLAR training, annual Bloodborne Pathogens and Aerosol Transmissible Diseases Training. Personnel who have not completed the required training will not begin this work until all appropriate training has been completed and documented.					
Review Summary: All facilities, procedures, and practices have been reviewed by the IBC and are considered appropriate and acceptable.					
IBC Action/Decision: Chair Approved					

- ❖ The Chair reviewed and approved the protocol subject to the adherence to the standard stipulations.

Personnel/Admin Amendments

- 23-214 Oka
- 23-218 Zinn
- 23-287 Voorhees
- 23-323 Glover
- 23-327 Shan
- 24-247 Meyerowitz
- 24-307 WEL (Dalleska)
- 24-310 Parker
- 24-314 Mayo
- 24-343 Chong
- 25-123 Campbell
- 25-271 Prober
- 25-278 Hoelz
- 25-317 Zernicka-Goetz
- 25-321 Chou
- 25-324 Zernicka-Goetz
- 25-349 Ruby-Carnegie

4. Other Business

A. IBC PAS

The BSO provided an update regarding IBC PAS wherein the system is still undergoing testing and therefore training for the committee is planned to take place at the March meeting instead of the current meeting as previously stated.

B. Quarterly Inspection Report

The BSO presented the quarterly report to the committee with no pending significant issues to report other than incomplete training. The BSO advised that additional ad hoc trainings will be provided as needed for these individuals. All BSCs that were past due for certification have since been resolved except for one of the lab's BSCs, which are not currently in use and marked not in use.

Next Meeting – March 3, 2026

Meeting adjourned at 3:03pm

Approved by the IBC 3/3/26