Institutional Biosafety Committee

Biological Full Committee

Minutes

Tuesday, June 24, 2025

Present:	Henrique Borges da Silva, Richard Chichester, John Copland, Madiha Fida, Marina Hanson, John Jasker, Richard Kennedy, Daniel Montonye, Suzannah Schmidt-Malan, Russel Sinor, Melanie Swift
Absent:	Marion Curtis, Hind Fadel, Kathleen McNaughton, Elitza Theel
Mayo Guests:	
Guests:	Brendan Shea
Duration:	11:30 AM - 1:30 PM

Minutes approved

Quorum was present during all committee decisions.

Discussion Items

- 1. Approve May Meeting Minutes

  May meeting minutes approved.

- 2. Approve Consent Agenda (Note Items)

  Consent agenda (note items) approved.

- 3. IBC Minutes Update

  Update on directive to post meeting minutes.

Note Items

Approvals

- **Veronica Rodriguez Bravo Update of Mechanism and therapeutic targeting of abnormal androgenesis in CHD1-deficient prostate cancer**
  Review Type: Update Application
- **Anastasia Zekeridou Update of A Phase 2 Open-Label, Single-Arm, Multicenter Study of KYV-101, an Autologous Fully Human Anti-CD19 Chimeric Antigen Receptor T-Cell (CD19 CAR T) Therapy, in Subjects with Treatment Refractory Stiff Person Syndrome (KYSA-8)**
  Review Type: Update Application
- **Veronica Rodriguez Bravo Update of Investigating the Role of SPOP and Other Tumorigenic-Associated Genes in Prostate Cancer**
  Review Type: Update Application
- **Marina Walther-Antonio Update of Viability of Female Reproductive Tract Bacteria upon Exposure to Cancer Conditioned Media**
  Review Type: Update Application
- **Zachary Resch Update of Lentivirus work MN BB 3rd floor**
  Review Type: Update Application
- **Hu Zeng Update of Metabolic regulation of humoral immunity**
  Review Type: Update Application
- **Anastasia Zekeridou Update of A Phase 2 Open-Label, Single-Arm, Multicenter Study of KYV-101, an Autologous Fully Human Anti-CD19 Chimeric Antigen Receptor T-Cell (CD19 CAR T) Therapy, in Subjects with Treatment Refractory Stiff Person Syndrome (KYSA-8)**
  Review Type: Update Application
- **Purna Kashyap Update of Host-microbial interactions in gastrointestinal motility and physiology**
  Review Type: Update Application

Protocols Reviewed

- **Pooja Advani** An Open-label, Phase 1, Multicenter Study to Evaluate the Safety and Preliminary Anti-tumor Activity of NT-175 in HLA-A*02:01-Positive Adults with Unresectable, Advanced/Metastatic Solid Tumors Positive for TP53 R175H Mutation

  The Biological Hazard Application, Bios00001983, for "An Open-label, Phase 1, Multicenter Study to Evaluate the Safety and Preliminary Anti-tumor Activity of NT-175 in HLA-A*02:01-Positive Adults with Unresectable, Advanced/Metastatic Solid Tumors Positive for TP53 R175H Mutation" (IRB 25-005125) has been approved.

  Subject to Laboratory Biosafety Level 2 provisions and practices for research involving the study of NT-175, a recombinant autologous TCR-T cell product expressing an HLA-A-*02:01 restricted T Cell Receptor (TCR) against p53 in participants with advanced and/or metastatic qualifying solid tumors positive for TP53 with the R175H mutation. NT-175 is engineered using a CRISPR/Cas9 system to express an HLA-restricted TCR targeting p53 encoded by TP53 with the R175H mutation and to knock out native TRAC, TRBC, and TFGFBR2 genes to prevent endogenous TCR expression and reduce T-cell inhibition in the tumor microenvironment, in a clinical trial.

  This study aligns with section III-C Experiments Involving Human Gene Transfer that Require Institutional Biosafety Committee Approval Prior to Initiation of the NIH Guidelines.

  This trial is approved for administration at the Mayo Clinic Jacksonville location only. If the enrollment of patients at either Mayo Clinic Rochester or Mayo Clinic Scottsdale is desired, the laboratory is directed to inform the IBC of the expansion.

  Infection Prevention and Control has determined that standard precautions are appropriate for this trial.

  Informed Consent documentation is adequate.

- **John Eaton** A Phase 2 Randomized, Double-blind, Placebo-controlled, Parallel Study Evaluating the Safety and Efficacy of LB-P8 in Patients with Primary Sclerosing Cholangitis (PSC)

The Biological Hazard Application, Bios00001980, for "A Phase 2 Randomized, Double-blind, Placebo-controlled, Parallel Study Evaluating the Safety and Efficacy of LB-P8 in Patients with Primary Sclerosing Cholangitis (PSC)" (IRB 25-005264) has been approved.

Subject to Laboratory Biosafety Level 1 provisions and practice for research involving the study of LB-P8, a new treatment being studied that contains *Leuconostoc citreum*, a type of bacteria commonly found in food, in a clinical trial to treat liver fibrosis and inflammation.

This study aligns with section III-D- Experiments that Require Institutional Biosafety Committee Approval Before Initiation of the NIH Guidelines.

This trial is approved for administration at the Mayo Clinic Rochester location only. If the enrollment of patients at either Mayo Clinic Jacksonville or Mayo Clinic Scottsdale is desired, the laboratory is directed to inform the IBC of the expansion.

Infection Prevention and Control has determined that standard precautions are appropriate for this trial.

Informed Consent documentation is adequate.

- **Linda McAllister** Pediatric sarcoma biology

  Subject to Laboratory and Animal Biosafety Level 1 provisions and practices for research involving the study of siRNA to transiently transfect cells and manipulate gene expression to knockdown the following RAD51, BRAD51, BRCA, COL1a1, COL6a3, GBP1, LGALS3, PD-L1, PD-L2, RAD51D, STAG2, TGFB1, and TGRBR2. The tumor cells to be used in vivo and modified by CRISPR will include A673STAG2KO, TC71STAG2KO, TC32Gal3KO, CHAL10Gal3KO, COL1A1, andCOL63. The siRNA will not be used in animal experiments. This is to better understand the biology of the pediatric cancer Ewing sarcoma.

  This study aligns with sections III-D-4-a of the NIH Guidelines.

  This application must be updated with any other genetic modifications made during the course of experimentation. This is required by the NIH Guideline and Mayo Clinic policy.

  The laboratory is reminded to use the appropriate animal cage labels (BSL1) in the animal facility for all housed animals associated with this project.

  Due to the note of injection as the route of delivery, it is recommended that the laboratory take extra precautions during sharps (needle) usage when handling the animals. No recapping, sheering, bending, or breaking or removing the needle from the syringe is allowable. All sharps waste is to be placed in appropriate hard walled waste containers. If these actions must occur or are ongoing at this time, you must contact the Biosafety Office, IMMEDIATELY to discuss the proper handling of sharps. Your laboratory will be audited for the handling of sharps in the manner described above unless an exemption is on record with the IBC.

  As a reminder to the lab, eye protection must be worn whenever there is the possibility of a spill or splash. All samples considered biosafety level 2/2+ and those items that may be potentially contaminated must be disinfected before removal from a biosafety cabinet for final disposal in regulated medical waste (red bins). Proper waste disposal will be audited yearly. Any questions can be directed to the Biosafety Office and/or Waste Management.

  Animal work with the approved biohazardous agents must be listed in an approved IACUC protocol prior to the onset of experimentation in the animal model. All biohazardous agents must be approved by the IBC prior to work in an animal model.

  Employees will be informed by the Principal Investigator, laboratory supervisor, or delegate about the potential for adverse health effects that could occur following an exposure incident and how risks may be controlled to prevent an exposure.

- **Kah Whye Peng** Update of Recombinant herpesviruses for oncolytic virotherapy (copy of Bios00000292.05)

  Modification to this application submitted to include additional viral agents:

  (1) Human cytomegalovirus (HCMV) Merlin strain (purchased from ATCC, VR-1590) and Human cytomegalovirus (HCMV) TB40 strain (purchased from ATCC, VR-3348)
  (2) Varicella-Zoster Virus (VZV) lab-adapted Ellen strain (purchased from ATCC, VR-1367)
  (3) Mouse cytomegalovirus (mCMV) Smith strain (purchased from ATCC, VR-1399)
  (4) CD3 targeted Lentivirus
  (5) CD3 targeted Murine Leukemia Virus (MuLV)

Updates to section 9 Occupational Health have been made, please review these carefully.

In this study the lab is attempting to develop novel herpesvirus vectors with enhanced anti-tumor activities.

Subject to Laboratory and Animal Biosafety Level 2+ provisions and practices for research involving the study of replication deficient, HIV-1 based lentiviral vector expressing genes of interest as outlined in the application in an animal model.

Subject to Laboratory and Animal Biosafety Level 2 provisions and practices for research involving the study of Herpes Simplex Virus (HSV), Varicella Zoster Virus (VZV), and Human Cytomegalovirus encoding genes of interest as outlined in the application in an animal model.

Cells lines utilized include ARPE-19, HEK293T, NIH-3T3, Vero and MRC-5. Genes of interest include: 4070A Amphotropic Murine leukemia virus envelope gene, BDNF, BLA Gene (AmpR), canine distemper fusion (F) protein, CAT gene (CmR), CD::UPRT, CD19-targeted chimeric antigen receptor, cPPT, dTomato, EGFR retargeted canine distemper virus Hemagglutinin (H) glycoprotein, EGFR retargeted Measles Hemagglutinin (H) glycoprotein, EGFR-targeted chimeric antigen receptor, Gag-pol, galactokinase(GalK), GM-CSF, Green fluorescent protein(GFP), human chorionic gonadotropin beta-subunit, Human Interleukin-12 (IL-12), Human sodium iodide symporter, LTR, measles fusion (F) protein, Measles Hemagglutinin (H) glycoprotein, mouse CD19-targeted chimeric antigen receptor, Mouse Interleukin-12 (IL-12), Murine leukemia virus (MuLV) Gag-pol, neo gene (KanR), NGF, Psi (Ψ), rev, RRE, scFv of anti-CTLA-4 antibody, scfv of anti-human CD3 antibody, scfv of anti-mouse CD3 antibody, scFv of anti-PD-L1 antibody, sgC (extracellular domain of Varicella-Zoster Virus glycoprotein C), Sh ble gene (ZeoR), spyCatcher, spyTag, tetracycline-controlled transactivator (tTA), TNFα, and Vesicular stomatitis virus (VSV) G-protein.

This study aligns with section III-D-1-a, III-D-2-a, III-D-4-b of the NIH Guidelines.

Due to the note of injection as the route of delivery, it is recommended that the laboratory take extra precautions during sharps (needle) usage when handling the animals. No recapping, sheering, bending, or breaking or removing the needle from the syringe is allowable. All sharps waste is to be placed in appropriate hard walled waste containers. If these actions must occur or are ongoing at this time, you must contact the Biosafety Office, IMMEDIATELY to discuss the proper handling of sharps. Your laboratory will be audited to handling of sharps in the manner described above unless an exemption is on record with the IBC.

The laboratory is reminded to use the appropriate animal cage labels (BSL2) in the animal biosafety suite for all housed animals associated with this project. Housing at this level is required for the duration of the animal subject's life span post exposure to the biohazardous agent.

Due to the risk of secondary transmission associated with basic animal husbandry practices, the agents listed below are classified as a Special Pathogens by the Department of Comparative Medicine and the Institutional Biosafety Committee. As you are using one or more of these agents the investigator or project delegate(s) must adhere to the Special Pathogen requirements listed below.

Herpes Simples Virus -1 (HSV-1)

Vaccinia Virus (VACV or VV)

Enterovirus 71 (EV71)

Replication Competent HIV-1

Varicella zoster virus (VZV)

Special Pathogen Requirements: The investigator is responsible for animal husbandry responsibilities, particularly the handling of animals during the changing of bedding. Special cage labels noting that a Special Pathogen is used in this animal protocol is required to be displayed on the cage card.

As a reminder to the lab, eye protection must be worn whenever there is the possibility of a spill or splash. All samples considered biosafety level 2/2+ and those items that may be potentially contaminated must be disinfected before removal from a biosafety cabinet for final disposal in regulated medical waste (red bins). Proper waste disposal will be audited yearly. Any questions can be directed to the Biosafety Office and/or Waste Management.

Employees will be informed by the Principal Investigator, laboratory supervisor, or delegate about the potential for adverse health effects that could occur following an exposure incident and how risks may be controlled to prevent an exposure.