

BOSTON CHILDREN'S HOSPITAL
Meeting of Boston Children's Hospital Institutional Biosafety Committee
AGENDA
6/18/2025 11:30 AM to 1:00 PM
KARP 4th Floor, Conference Room

Members Present: DF, MM, SG, IJ, CH, DC, HD, SVH, SD, KK, EC, BS, LW, TW, JM, EG

Members Absent: PW, AR

Guests: RD

RLSO: DH, JF, LA

SD Chaired the meeting.

1 IBC Meeting Minutes

Boston Children's Hospital Institutional Biosafety Committee meeting (03/20/2025)

Boston Children's Hospital Institutional Biosafety Committee meeting (04/17/2025)

IBC Meeting Minutes were unanimously approved by the committee.

Committee Decision:

Motion: Approved

Majority (Approved): 14

Minority (Against): 0

2 Laboratory Events

1. Laceration to Finger

- **Incident summary:** A researcher cut their finger while cleaning a cryostat.
- **Root Causes:**
 - Debris from the previous user was not cleared.
 - The blade was not removed or properly guarded before cleaning.
 - The researcher was not wearing cut-resistant gloves.
- **Corrective Actions:**
 - Wear cut resistant gloves when cleaning near the blade.
 - Remove the blade wearing cut resistant gloves before cleaning the cryostat.

- Clean the working area after each experiment.

2. Laceration by Cryostat Blade

- **Incident summary:** A researcher sustained a cut while cleaning behind the cryostat stage at the end of their experiment.
- **Root Cause:**
 - Cut-resistant gloves were not worn during the procedure.
 - The blade was not removed prior to cleaning.
- **Corrective Actions:**
 - Verify that the blade has been fully removed before beginning any cleaning procedures.
 - Always wear cut-resistant gloves when working in or around the cryostat blade area if the blade is still in place and no blade guard is available.

3. Puncture by Needle

- **Incident summary:** A researcher punctured their finger when mounting a murine carcass on a styrofoam lid using needle tips.
- **Root Cause:**
 - Safety needle device alternatives were not evaluated.
- **Corrective Actions:**
 - Use T-pins or blunt tip needles.
 - Use forceps to hold mouse paws.

3	New submission – Clinical	
IBC-P00002096	BiomX Bacteriophage Clinical Trial	
	PI:	AU
	Motion:	Modification Required for Approval – Return to IBC Analyst
	Discussion:	IBC Discussion: This is a new Phase 2b study to study the safety and efficacy of BX004 for participants with Cystic Fibrosis with Chronic Pseudomonas aeruginosa pulmonary infection. BX004 is a cocktail of 5 naturally occurring bacteriophages, DSPSA771-1/1, DSPSA771-2/1, DSPSA908-1/1, DSPSA908-P6 and DSPSA908-P37. The product will be stored at the BCH pharmacy and brought to the study participants room or their home for administration via

a nebulizer. Blood, urine and sputum will be collected from the participants and brought to the lab for analysis.

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Revise the summary using layman's terms. Include a description of bacteriophage, its biosafety level (BSL-1), and its relevance to cystic fibrosis patients with *Pseudomonas* infections.
- Describe measures to protect healthcare professionals from inhaling phage particles. The IBC recommends N95 respirator use during drug administration and for 30 minutes post-administration.
- Address biosafety considerations for caregivers when the study drug is administered in a home setting.
- Include procedures for disinfecting the nebulizer in the home setting.
- Clarify that *Pseudomonas aeruginosa* is used as the host organism for bacteriophage amplification and purification.
- If the study drug is administered at BCH, specify the administration location and room type.
- Specify the duration staff are required to remain in N95 masks after aerosol drug administration. The IBC recommends a minimum of 30 minutes.
- Clarify whether N95 masks are also required and will be provided for caregivers in the home setting.

IBC-P00002111

PBTC-061

PI:

KKY

Motion:

Modification Required for Approval – Return to IBC Analyst

Discussion:

IBC Discussion: This is a Phase 2 Trial of G207 for study participants with high grade gliomas, which is a fast growing and aggressive brain and spinal cord tumors. G207 is a replicating recombinant Herpes Simplex Virus that was designed to replicate in tumors but not normal brain tissue. The study drug is manufactured and shipped to the BCH pharmacy. The BCH, the participants will be admitted for the treatment. Day 1 they will have a catheter placed. Day 2 the study product is administered through the catheter, and Day 3 the participant will receive radiation. Tissue from biopsy or debulking; blood; saliva and conjunctiva swab will be collected and shipped to the study sponsor.

Regulations Applicable to this Protocol: The study falls under the NIH Guidelines III-C.

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Revise the study summary to include additional details and use language accessible to non-scientific committee members. It should include language such as: “a high-grade glioma that has come back after other treatment”.
- Clarify that HSV-1 is a neurotropic virus modified for treatment of brain tumors.
- Remove the numbered references from the study protocol text, as these appear to be carry-over errors from source citations.
- Revise the protocol text to clearly state that the recombinant HSV lacks the two genes encoding infected cell protein Gamma 134.5, which is ordinarily required for viral replication in neurons.
- The committee recommends that the protocol description be revised for clarity by using language from the pharmacy manual.
- Provide details regarding the collection of samples, including the method of collection, how and where the samples will be shipped, and whether the samples are infectious or non-infectious.
- Specify the name and location of the sponsor’s laboratory where the samples will be sent.
- Clarify whether HSV-1 used in the study is replication-competent or replication-incompetent.
- Specify whether there is potential for exposure through needlestick injuries, mucosal contact, or skin exposure.
- Address the biosafety concerns regarding HSV-1 presence in study samples.
- State that all potential HSV-1 exposures must be reported to Occupational Health Services (OHS).
- Include a post exposure plan including providing acyclovir under consultation with OHS in the event of a disseminated HSV infection during the study.
- Provide procedures for managing participants who develop HSV-1–related disease, including necessary precautions. A patient with HSV-1 adverse events would require added precautions.
- Include the use of human materials in this protocol and provide exposure risks to staff when handling human-derived materials, including bloodborne pathogen risks during sample isolation.
- Include all personnel involved in handling or administering the study product: pharmacy staff, personnel transporting the study material to the OR and doctors administering the study product.
- Ensure all staff complete the required protocol-specific training, covering relevant biohazards, biosafety levels, safe work practices, procedures, and safety measures.

- The biosafety team is developing an HSV-1 training module and will provide it to the study coordinator.

4	Laboratory Amendments
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IBC-A11-235-3	Amendment 3: Enabling Vaccines in Newborns Through Improved Understanding of Immune-Triggering Events in Neonatal Cord Blood Cells
PI:	OL
Motion:	Modification Required for Approval – Return to IBC Analyst
Discussion:	<p>IBC Discussion: The laboratory evaluates immune responses in vitro using a range of vaccines, including influenza, varicella zoster, oral polio vaccine (OPV) types 1 and 3, and measles-containing vaccines such as MMR. The goal is to gain a deeper understanding of immune system function and how vaccine formulations can be modified to better serve vulnerable populations. To achieve this, the laboratory generates monocyte-derived dendritic cells (moDCs) and stimulates them with commercially available vaccines as antigens. This lab is amending its protocol to include measles-containing vaccine (MMR) to expand the scope of the research. The handling and processing of MMR vaccine will be conducted at BSL-2 work practices and procedures.</p> <p>Motion: Modifications Required for Approval</p> <ul style="list-style-type: none"> • Majority (Approved): 14 • Minority (Against): 0 • Abstention: 0

Modifications Requested:

- Evaluate potential biosafety risks of the MMR vaccine to research staff, with particular attention to accidental needlestick exposures and the implications for pregnant or immunocompromised individuals.
- Add influenza virus to the list of biological agents.
- Update the laboratory room locations for the proposed BSL-2 work.

IBC-A00001438-5 Amendment 5: Immune Studies in Human and Murine Samples

PI: **PN**

Motion: Modification Required for Approval – Return to IBC Analyst

Discussion: **IBC Discussion:** The lab is studying the genetic and immunological factors that mediate rheumatologic diseases by using human samples to study the mechanisms of these autoimmune disorders, followed by testing their hypotheses in mouse models of disease. The amendment includes a new animal strain that will be involved inoculated with serum, pertussis toxin, CFA and Dextran sulfate sodium injections to induce systemic or colon inflammation. In addition, the lab is adding the treatments for *Streptococcus pneumoniae* (TIGR4) injections; transfer techniques to transfuse Hoxb8 cells to mice; and experimental autoimmune encephalomyelitis using Hooke Kit™ MOG35-55/CFA Emulsion PTX or Hooke Kit™ MOG1-125/CFA Emulsion PTX. All procedures are conducted under BSL-2 and ABSL-2 work practices and procedures.

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Future submissions should streamline the scientific description summary for clarity and conciseness.
- Clarify whether mouse tissue collected for in vitro studies includes cell culturing and provide a list if applicable.
- IBC recommends the use of disposable lab coats for 2-photon imaging experiments when removing materials from the core.
- Condense biohazard descriptions to focus on potential risks to staff, environment, and public.
- Staff is due for the required trainings.
- Add *Escherichia coli* WK6 strain to the list of organisms.
- Include AAV in the recombinant DNA and specify experiments involving MSCV.
- Clarify lentiviral vectors and packaging systems used in the study.
- Provide details on CRISPR/Cas9 plasmid vectors and the target genes.
- Confirm all human tissues and fluids listed in the scientific description summary are also reflected in the human materials section, including tonsil, bronchial or tracheal lavage.
- Include all ongoing studies in the Exposure Control Plan.
- Incorporate CpG DNA ODN 1826 in recombinant DNA and confirm use of genetically modified mouse strains for ASO/siRNA experiments.
- Verify dosages and concentrations for *Pseudomonas aeruginosa*, *Staphylococcus aureus*, *Pertussis toxin*, and *Aspergillus fumigatus* experiments.
- Specify mouse strains (wild type or genetically modified) used in infection studies and clarify blood collection procedures.

- Include in the scientific description summary that blood will be drawn, as only lungs are mentioned.
- Confirm whether the 2-photon core is in the PI's lab.
- Remove cell sorter from laboratory procedures if sorting occurs in biosafety cabinets.
- Include AAV work under Biosafety Level 1 and clarify studies involving MSCV under Biosafety Level 2.
- Review the IACUC protocols listed and update the protocol number.
- 'Hoxb8 cells with or without lentivirus transduction, transferred into mice by IV or IP injection.' is not described in the IACUC protocol. Reconcile and update this information.
- Hoxb8 cells purchased by a vendor must be tested for rodent pathogens.
- Include that human tissue and/or cells will be transported from lab to the biobank.

IBC-A00000180-6 Amendment 6: Genetics of Human Hematopoiesis

PI: **VS**

Motion: Modification Required for Approval – Return to IBC Analyst

Discussion: **IBC Discussion:** This study investigates genes involved in human blood cell production. Using primary mouse cells, human cell lines, and xenograft models, the lab aims to understand the role of specific genes in hematopoiesis. This amendment includes the addition of human oncogenic cell lines, which will be used to study how a germline variant may predispose individuals to myeloproliferative neoplasms by altering the expression of the thrombopoietin receptor, MPL. The germline variant will be introduced into the cell lines using CRISPR-HDR. All work will be performed under BSL-2 work practices and procedures.

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Include "the potential risk of bloodborne pathogen exposure associated with the culturing, pipetting, and transfer of primary human cells."
- Staff members are overdue or will be overdue soon for the Safety Training.

IBC-A00000334-4 Amendment 4: Global regulators converge to orchestrate metabolism, biofilm, and pathogenesis

PI: **PW**

Motion: Modification Required for Approval – Return to IBC Analyst

Discussion: **IBC Discussion:** This amendment expands on the lab's ongoing investigation into regulatory networks controlling carbohydrate metabolism and virulence in *Vibrio cholerae*. In this amendment, the lab will perform whole genome identification of small RNAs using RNA interaction by ligation and sequencing (RIL-Seq). To do this, a tagged version of the small RNA-binding protein Hfq will be generated and expressed in *V. cholerae*. Hfq, along with its associated small RNAs, will be affinity purified and sequenced to identify networks that may play a role in virulence and metabolism. The lab will also investigate the role of the transcription factor CRP on *V. cholerae* biofilm formation. To do this, in-frame deletions of the ArcAB genes will be constructed, and the resulting mutants will be used in biofilm assays and RNA sequencing. *V. cholerae* cloning, fractionation/growth experiments, RNA preparation experiments and chromatin immunoprecipitation will be performed at BSL-2 work practices and procedures.

Regulations Applicable to this Protocol: The study falls under the NIH Guidelines III-D

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Confirmation is requested regarding the collaborator's active IBC protocol for the proposed study, including whether the specific mutants referenced in the amendment are included in the current protocol.
- The committee recommends the removal of the statement referencing the number of investigators and biosafety cabinet availability as justification for not conducting *Vibrio cholerae* experiments in a biological safety cabinet. The organism's high infectious dose already supports the risk assessment sufficiently.
- Correct the typographical error by revising "hfg" to "hfq."
- The committee requests clarification on the rationale for not recommending the cholera vaccine for personnel working with *Vibrio cholerae*.

IBC-A10-350-12 Amendment 12: Response of the mouse nervous system to peripheral nerve injury

PI: **CW**

Motion: Modification Required for Approval – Return to IBC Analyst

Discussion: **IBC Discussion:** The lab investigates regulatory proteins and their roles in central nervous system (CNS) regeneration, as well as proteins involved in pain sensation. To explore these mechanisms, the lab utilizes gene and protein delivery in mouse models to study biological responses. The protocol is being amended to include the use of AAV-shRNA vectors designed to knock down either Phf21a or Ybx1, which will be injected into the brains of mice. These viral vectors will be produced by the BCH Viral Core, and all procedures will be conducted under ABSL-1 work practices.

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Provide a brief description of what happens to the mice following the brain injection, as no downstream procedures or experiments are currently listed.
- The lab is due for its annual inspection.
- A staff member is due for the Safety Training.
- AAV plasmids are listed twice, remove the duplicate entry.

5 3 year Lab Study Renewals

IBC-RN00001647-1 Renewal 1: Bacterial Colonization in Mice

PI: **MR**

Motion: Modification Required for Approval – Return to IBC Analyst

Agenda Notes: The objective of this study is to investigate how bacterial colonization of the gastrointestinal (GI) tract influences host behavior, GI motility, hormone regulation, and immune responses. The renewal adds *Citrobacter rodentium*, a pathogen that induces colitis in mice, to examine gut-neuron-immune interactions. Mice will be challenged with *C. rodentium* via oral gavage after culturing the bacteria in LB broth. Fecal samples will be collected at different time points to assess bacterial colonization, and mice will be monitored for signs of distress. Colon, spleen, and liver tissues will be harvested for histological assessment of inflammation and bacterial load. All procedures involving

C. rodentium will be conducted at BSL-2 and ABSL-2 work practices and procedures.

Motion: Modifications Required for Approval

- Majority (Approved): 14
- Minority (Against): 0
- Abstention: 0

Modifications Requested:

- Describe how and where the fecal samples will be transported for processing. Additionally, indicate whether any bacterial isolates or fecal samples will be retained for long-term storage. If so, describe the proposed storage conditions and procedures.
- The statement, "Waste generated from the study will be decontaminated with a 10% bleach solution before disposal or autoclaving," should be updated to "waste will be managed following ABSL-2 work practices and procedures in ARCH."; 10% bleach is not used in ARCH.
- Confirm that all personnel will receive training on the specific procedures and waste handling requirements for this space prior to accessing the facility.
- Staff will be due for the IBC training soon.
- Blood draw is not mentioned in the scientific description section. If blood collection is being performed, describe the procedure and the experiments involving the collected blood. If blood draw is not performed, remove the use of "Blood Draw".
- For Citrobacter rodentium infection in mouse, specify the volume of the gavage administered and indicate that shedding will occur for the duration of the experiment.
- If blood draws will be performed on mice, specify the needles used for cardiac puncture.
- Describe what materials or tissues will be homogenized and the specific location (s) where homogenization procedures will be conducted.
- Explain how the bead beater and lyophilizer will be used with stool pellets. Additionally, clarify how the lyophilization procedure will be performed at -80°C. Confirm and describe the correct method and equipment used.
- Include brain, dorsal root ganglia, and GI tract in the scientific description summary and indicate whether these tissues will be fixed prior to processing. Detail the experiments to be performed with both fixed and unfixed tissues.
- Include lab spaces and buildings where the materials will be transported to and from. Note that transport of bacterial cultures such as C. rodentium and bacterial infected mouse tissues must be done using a primary leak proof container in a secondary rigid self-sealable container to prevent leaks and spills.
- Include E. coli MG1655 to BSL-1 and ABSL-1 section.
- Update the BSL-2 designation to ABSL-2 for work involving Citrobacter rodentium in mice.
- Include BSL-2 entry to cover the handling and culturing of Citrobacter rodentium and other bacteria in the laboratory space before gavage and following fecal sample collection. This

new entry should include the specific BSL-2 laboratory rooms where these procedures will occur and describe all laboratory-based manipulations involving C.rodentium.

6	Human Study Annual Reconfirmation
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IBC-P00001662	VX-522 Phase 1/2
PI:	AU
Motion:	Approved
Discussion:	The study is open to enrollment and ongoing.
IBC-P00000774	Gene transfer for Sickle Cell Disease
PI:	EE
Motion:	Approved
Discussion:	The study is active and closed to enrollment. Results are being gathered.
IBC-P00000548	FMT in peanut allergic patients
PI:	RR
Motion:	Approved.
Discussion:	The study is active and closed to enrollment. All participants have completed the study. The data is being collected and analyzed.

7	Administrative Reviews
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IBC-RN00001087-2	Renewal 2 : Investigation of Pathogenesis and Therapy of Ocular Diseases Using Murine Models
PI:	YS
Motion:	Administrative Approval
Discussion:	This is a three-year renewal with no changes or updates to the risk assessment.

IBC-RN00001622-1 Renewal 1 : Osteoblast Function in Pediatric Osteogenesis Imperfecta

PI: **CJ**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN00000677-3 Renewal 3 : Diphtheria toxin mediated cell ablation in the mice central nervous system

PI: **ZH**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN00001067-2 Renewal 2 : Modeling Development and Disease with Sensory Organoids

PI: **KK**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes or updates to the risk assessment.

IBC-RN00000582-3 Renewal 3 : 10X Genomics Single-Cell Seq

PI: **JH**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN05-228-6 Renewal 6 : Drosophila as a Model Host of Vibrio Cholerae

PI: **PW**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN02-203-5 Renewal 5 : Effect of Heme Oxygenase-1 on Hypoxia Modulated Gene Expression and Signal Transduction

PI: **SK**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN04-207-5 Renewal 5 : Heme Oxygenase-1 Transfected Mesenchymal Stem Cells in Hypoxia Induced Pulmonary Hypertension in Mice

PI: **SK**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN01-155-5 Renewal 5 : Vesicular Transport of Intact Proteins Across Mucosal Barriers

PI: **WL**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes or updates to the risk assessment.

IBC-RN11-053-5 Renewal 5 : Molecular Genetic Basis of Cranial Neuron Development

PI: **EE**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes or updates to the risk assessment.

IBC-RN00001053-2 Renewal 2 : Cellular folate response

PI: **NK**

Motion: Administrative Approval

Discussion: This is a three-year renewal with no changes to the risk assessment.

IBC-RN00001012-2 Renewal 2 : Host-microbe interactions of *C. elegans*

PI: **DK**

Motion: Administrative Approval

Discussion: The renewal includes studying the natural mobilization of endogenous transposons in *C. elegans* and its mechanism to silence them. This addition does not impact the risk assessment.

8	Laboratory Study Annual Reconfirmation
IBC-P00000159	CT adjuvant to protein based vaccines
	PI: RM
01-206	Innate and Acquired Immune Responses to Pneumococci
	PI: RM
09-257	Insulin Regulation of Lipids and Lipoprotein Metabolism
	PI: SB
IBC-P00000719	Signal transduction in neutrophils-part 1
	PI: HL
IBC-P00000052	ANALYSIS OF BACTERIAL GENOTYPIC DIVERSITY DURING CHRONIC INFECTION OF PATIENTS WITH CYSTIC FIBROSIS
	PI: GP
06-125	Analysis of Erythropoiesis and Globin Gene Regulation in Primary Human Erythroid Progenitors
	PI: SO
03-175	In vivo Rescue and Growth of Adult and Neonatal Sensory and Motor Neurons
	PI: CW
IBC-P00001178	Single-Cell Studies of Tissue Immunity and Inflammation
	PI: JOM
96-187	Investigation of the transcriptional regulation of genes by hypoxia
	PI: SK

01-007	The Role of Heme Oxygenase-1 in Modulating the Inflammatory Response of the Lung to Bacterial Infection
	PI: SK
IBC-P00001310	Translational Hearing Genomics Research
	PI: AS
99-149	Neuronal Differentiation and Migration in Cortical Development
	PI: CW
IBC-P00000698	Functional validation and developmental mechanisms of novel CCDD candidate genes
	PI: EE
IBC-P00000030	Biorepository and Molecular Assessment of Acute Leukemia
	PI: MH
IBC-P00000119	Axon-regeneration associated transcription factors
	PI: CW
IBC-P00001473	Functional validation of kidney disease trait loci
	PI: MS
IBC-P00000334	Global regulators converge to orchestrate metabolism, biofilm, and pathogenesis
	PI: PW
11-107	Prolonged duration nerve block
	PI: DK
IBC-P00001836	Investigation of Molecular Developmental Biology and Neonatal Disease
	PI: SM
IBC-P00001986	Understanding quantitative principles of gene regulation in development and disease

PI: **SN**

09-131 Injection of cardiotoxin in live mice to induce muscle degeneration

PI: **EG**

08-150 Rho GTPase functions in Hematopoiesis

PI: **DW**

11-267 Biochemical and Structural Studies of viral fusion proteins

PI: **BC**

IBC-P00000681 Expression of blood vessel regulators in mice and endothelial cells

PI: **TH**

09-256 Understanding the processes that regulate the developmental program of human cancer in mouse models

PI: **SO**

08-076 Genetic Susceptibility to Common Pediatric Diseases

PI: **AR**

10-040 Biomimetic Microengineering of Tissues and Organs on a Chip

PI: **DI**

IBC-P00000421 Autologous Mitochondrial Transplant

PI: **JM**

IBC-P00000064 Recombinant DNA for Wu lab.

PI: **HW**

IBC-P00000987 Understanding Polymorphisms in Growth Plate Chondrocytes

PI: **JH**

IBC-P00001409 Characterization of the molecular and functional roles of glycoRNAs

PI: **RF**

04-253 Characterization of Mutant Mouse Strains and Human Genetic Diseases

PI: **MF**

IBC-P00001180 Antibody response to influenza

PI: **DW**

08-123 Signaling in oncogenic epithelial cell transformation

PI: **SH**

11-282 Biomarker analysis of brain tumors and cerebrovascular diseases

PI: **ES**

IBC-P00000070 Streptococcal pathogenesis

PI: **MW**

05-025 Using Lentiviral and Adeno-associated Viruses (AAV) to Introduce Axon Regeneration Molecules in Neurons both in vitro and in vivo

PI: **ZH**

IBC-P00000544 Mouse Models of Human Immune Diseases

PI: **JM**

IBC-P00001730 Measles and Vaccinia: Self vs Non-self RNA Discrimination by the Innate Immune System

PI: **SH**

IBC-P00000456 Development and Diseases of Musculoskeletal Tissues

PI: AC

9	Completions
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IBC-P00001099 Infection of mice with Salmonella typhimurium

PI: MR

IBC-P00001251 Immune responses to ingested food allergens

PI: HO

IBC-P00000399 Gene function during chick skeletal development

PI: MH