SAFETY Meeting Minutes
UAMS IBC

MEETING TIME RECORDS

Meeting start time: 2/6/2026 12:01 PM
Meeting end time: 2/6/2026 12:52 PM
Meeting type: Virtual

Name of Regular/Alternate Member	Status (Member or Alternate)	Present by Teleconference?
Ha-Neui Kim	Member	Yes
Matthew Jorgenson	Member	Yes
Robert Hunter	Member	No – voted by e-mail
Kimberly Murphy	Member	Yes
Lindsey Clark	Member	No
James Douglas	Member	Yes
Amanda Holloway	Ex Officio	No
James Bishop	Member	No
Youssef Aachoui	Member	Yes
Jia Liu	Member	Yes
Yuet-Kin Leung	Member	Yes
Melaney Gee	Member	No
Mark Manzano	Member	Yes
Christine Simecka Morgan	Member	No
Antino Allen	Member	Yes
KyoungHyun Kim	Member	Yes
James Townsend	Ex Officio	Yes
Shengyu Mu	Member	Yes
Kikumi Ono-Moore	Ex Officio	Yes
Zhiqiang Qin	Member	Yes

QUORUM INFORMATION

Number of SAFETY members on the roster: 17
Number required for quorum: 9
Quorum: Present

All members present via teleconference received all pertinent material before the meeting and were able to actively and equally participate in all discussions.

ATTENDANCE STATUS AND VOTING KEY	
ABSTAIN:	Present for the vote but not voting "For" or "Against."
ABSENT:	Absent for discussion and voting for reasons other than a conflict of interest.
RECUSED:	Absent from the meeting during discussion and voting because of a conflict of interest.
SUBSTITUTION:	When regular members and their alternate(s) are listed in the ATTENDANCE table above and an alternate member serves as a substitute for the regular member this identifies the name of the alternate to indicate which individual is serving as the voting member for this vote. May be deleted if there are no substitutions.

GUEST NAMES
Jill Gassaway (ACRI safety)

Previous Meeting minutes approved: Yes

REVIEW OF SUBMISSIONS

The review and discussion of the protocols listed below included the following elements: the agents involved and their characteristics; types of manipulations planned; the source(s) and nature of the nucleic acid sequences; the host organism(s) and vector(s) to be utilized; whether expression of a foreign gene is intended and, if so, the specific protein(s) to be produced; the containment conditions to be applied, including biosafety level and any special provisions; and the relevant sections of the NIH Guidelines.

All IBC members present were reminded to identify any conflicts of interest as each registration was reviewed.

For each protocol reviewed, it was confirmed that the Principal Investigator (PI) and laboratory personnel have received appropriate training in the safe conduct of research.

De Novo Review

1. Review of SPROTO202500000084

Title:	Cell Biology Models of Lipoprotein Metabolism
Investigator:	Ryan Allen
Submission ID:	SPROTO202500000084
Description:	My research focuses on the role lipoproteins (e.g. high-density lipoprotein (HDL), low-density lipoprotein (LDL), very low-density lipoprotein (VLDL) and chylomicrons) play in organismal homeostasis. My primary interests are in how immune cells respond to lipoproteins (i.e., inflammatory polarization, metabolic switching, differentiation) and how different cells modify cargo transported on lipoproteins (i.e., lipid flux, small RNA flux, apolipoprotein secretion). The general approach is to culture and differentiate cells (e.g., THP-1, RAW264.7, J774.1) to phenotypes that recapitulate tissues and (patho-)physiological conditions and expose them to lipoproteins for varying amounts of time to monitor the cellular response to lipoproteins, or changes to lipoprotein composition mediated by cell exposure. These experiments require the isolation of lipoproteins from human and animal blood. We will utilize bacteria (E. coli) to clone individual genes into over-expression vectors that can be introduced to cells to explore gene function in mammalian cell models (HEK293T cells). Additionally, we will express the Q-Beta bacteriophage coat protein in E. coli, which will result in self-assembling virus-like particles that are non-infectious and non-replicative. Harvested and purified virus-like particles will then be administered to eukaryotic immune cells to evaluate the elicited anti-viral response. To over-express genes in difficult-to-transfect cells (for example, macrophages and bone marrow cells), we will generate lentiviral particles in HEK293T cells that can be used for stable transduction of cultured cells. Although immortalized and cancer-derived cell lines will be used for this research, some experiments require primary cells derived from human blood (e.g., peripheral blood mononuclear cells (PBMCs)) or animal tissue (mouse primary bone marrow derived cells) to establish physiological relevance. Blood and tissues from euthanized animals will be used as a source of lipoproteins and primary cells. Lentiviral particles generated in our laboratory, or viral-like particles purified in our laboratory will not be administered to animals. We have identified a series of potentially novel mRNA chimeras of key apolipoprotein genes. We intend to clone these mRNA to the pAdTrack-CMV shuttle plasmid and then use recombination to insert these genes into the pAdEasy

	plasmid expression system. This plasmid will then be transfected into HEK293AD cells to generate recombinant adenovirus particles that can be harvested from cell lysates. We will use ultracentrifugation to purify these particles and dialysis to remove any toxic salts. High-titer adenoviral particles will be used to transduce cultured cells (HepG2) in vitro, or introduced into mice to observe acute effects to lipoprotein metabolism in vivo. Human and murine myeloma cells will be administered to bone by intraosseus injection to model myeloma. Cancerous cells will be allowed to grow within the bone for set periods of time, or until the mice develop hind-limb paralysis. Mice receiving myeloma cells will be labeled as such.
Agent Containment:	Biological Containment Levels: • Human Blood: BSL-2 • Human Plasma: BSL-2 • Animal Serum: BSL-2 • Animal Tissue: BSL-2 • Lentivirus: BSL-2 • Lentivirus: BSL-2 • Adenoassociated virus AAV: BSL-2 • Adenoassociated virus AAV: BSL-2 • Adenovirus: BSL-2 • E. coli: BSL-1 • E. coli: BSL-1 • Calu-3: BSL-2 • Human Induced Pluripotent Stem Cells: BSL-2 • J774: BSL-1 • Caco-2 HTB 37 (human colon; colorectal adenocarcinoma): BSL-2 • RAW 264.7 Macrophage Cell Line: BSL-2 • Jurkat T Cells: BSL-2 • HEK293T Human Cell Line: BSL-2 • THP-1: BSL-2 • Mouse Bone Marrow Macrophages: BSL-2 • Human Primary Cell Line: BSL-2 • 5TGM1: BSL-2 • OPM2: BSL-2 • JJN3: BSL-2 • MM1.S: BSL-2 • HEK293: BSL-2 • HepG2: BSL-2
Applicable NIH Guidelines:	• Section III-D-1-a • Section III-F

	• Section III-D-1 • Section III-F-8

a. **Determination:** Modifications Required

b. **Required modifications:** Please review and respond to all comments throughout submission.

c. **Votes:**

For:	12
Against:	0
Recused:	0
Absent:	5
Abstained:	0

De Novo Review

2. Review of SPROTO202600000004

Title:	Yeast LBP antibody expression
Investigator:	Zachary Waldrip
Submission ID:	SPROTO202600000004
Description:	This project is to determine if genetically modified yeast will adequately express antibodies on their cell surface within the gastrointestinal tract. These yeast cells with stably integrated antibody expression constructs will be grown in culture and characterized in vitro. They will also be co-cultured with both explanted pig colon tissue and HEK293 kidney cells to assess interaction with fluorescent conjugates of Shiga-like toxins. Mice will then be given antibody-expressing genetically modified yeast by oral gavage and their feces will be tested for the presence of live cultures. We will also extract intestines to recover yeast and determine antibody expression levels. Gowns and foot and head covers will be worn in the mouse rooms, and a lab coat and gloves used for all other work. Mice will be handled and housed according to the linked AUP.
Agent Containment:	Biological Containment Levels: • Intestine: BSL-2 • Fecal pellets: BSL-2 • E. coli: BSL-2 • Yeast: BSL-2 • HEK293T Human Cell Line: BSL-2 • Caco-2 (Human Colorectal Adenocarcinoma Cells): BSL-2
Applicable NIH Guidelines:	• Section III-F • Section III-F-8

a. **Determination:** Modifications Required

b. **Required modifications:** Please review and respond to all comments throughout submission.
c. **Votes:**

For:	12
Against:	0
Recused:	0
Absent:	5
Abstained:	0

De Novo Review

3. Review of SPROTO202500000083

Title:	IGFBP1 in AKI
Investigator:	John Arthur
Submission ID:	SPROTO202500000083
Description:	Objective: Proteomic analysis of urine has identified Insulin-like Growth Factor Binding Protein 1 (IGFBP-1) as a very strong predictor of severe acute kidney injury (AKI). We have validated its predictive ability using ELISA. Unlike other available biomarkers, it can distinguish between patients with moderate and severe AKI so it is likely associated with the pathologic mechanisms of severe disease. While the canonical role of IGFBP-1 is to bind insulin-like growth factors, IGFBP-1 (along with IGFBP-2) is unique among IGF binding proteins in that it has an RGD domain which provides a second potential mechanism of action. RGD domains activate integrin receptors to stimulate intracellular signaling pathways. One of the known pathways activated by IGFBP-1 stimulation of integrin receptors is a pro-proliferative and pro-survival signal. Thus IGFBP-1 may be involved in recovery from severe AKI. We propose to test the signaling mechanisms of IGFBP-1 in cell culture and in vitro models. Research Plan: We will use PCR to create mutants and fragments of the IGFBP-1 molecule that may be involved in signaling by IGFBP-1 and test the ability of these mutants and fragments to produce effects of IGFBP-1 in cell culture models. Methods: HEK-293 and/or CHO cells will be transfected with fragments or mutated forms of the IGFBP1 gene to obtain insight into the

	biological function and mechanistic action of IGFBP1. We will use proteomic and phosphoproteomic analysis and western blotting for specific phosphoproteins to determine the effects resulting from the transfection. All recombinant work will be performed in a BSC. Biosafety Note: This is a Veteran's Affairs protocol, the UAMS IBC is only reviewing for rDNA per MOU, all other experimental information included is to aid in understanding the rDNA work and is not reviewed by the UAMS IBC.
Agent Containment:	Biological Containment Levels: • CHO: BSL-1 • E. coli: BSL-1 • HEK293T Human Cell Line: BSL-2 • HK-2 (Human Kidney 2): BSL-2
Applicable NIH Guidelines:	• Section III-D-1-a

a. **Determination:** Modifications Required
b. **Required modifications:** Please review and respond to all comments throughout submission.
c. **Votes:**

For:	12
Against:	0
Recused:	0
Absent:	5
Abstained:	0

De Novo Review

4. Review of SPROTO202600000001

Title:	Gene and environement interactions in cellular injuries and carcinogenesis
Investigator:	KyoungHyun Kim
Submission ID:	SPROTO202600000001
Description:	Environmental and endogenous chemical exposures influence human health by interacting with cellular gene regulatory networks. This research aims to understand how cells interpret and respond to chemical signals through gene–environment

	interactions that shape gene expression programs relevant to disease susceptibility and progression. We focus on fundamental mechanisms by which chemical-responsive transcription factors and epigenetic regulators coordinate transcriptional and post-transcriptional control of gene expression. Using established cellular and molecular biology approaches, this work examines how environmental toxicants, endogenous metabolites, hormones, and therapeutic agents alter cellular signaling pathways and RNA regulation. Particular emphasis is placed on identifying how transcription factors and epigenetic modifiers integrate chemical cues to regulate RNA processing, stability, and protein output. These studies employ well-characterized cell-based systems and complementary molecular assays to define general principles of gene regulation rather than disease- or compound-specific outcomes. Overall, this research seeks to uncover broadly applicable mechanisms by which chemical signals are translated into adaptive or maladaptive biological responses. The findings are expected to advance fundamental understanding of gene regulation, epigenetic control, and cellular stress responses, with relevance across diverse biological systems and environmental contexts.
Agent Containment:	Biological Containment Levels: • Animal Tissue: BSL-2 • Animal Serum: BSL-2 • Human Blood: BSL-2 • Human Tumor Tissue: BSL-2 • Lentivirus: BSL-2 • Adenoassociated virus AAV: BSL-2 • E. coli: BSL-1 • MCF7 Human Cell Line: BSL-2 • Hs766T: BSL-2 • HEK293T Human Cell Line: BSL-2 • CFPAC-1 CLR-1918 Human Cell Line: BSL-2 • PC3: BSL-2 • ARPE-19: BSL-2 • SNU-378: BSL-2 • HepaRG: BSL-2 • Pan02: BSL-2 • RIL-175: BSL-2 • Human Pancreatic Duct Epithelial (HPDE) Cell Line (H6c7): BSL-2

	• hTERT-HPNE CRL-4023 Human Cell Line: BSL-2 • SK-HEP-1 HTB-52 Human Cell Line: BSL-2 • Hepa 1-6: BSL-2 • MDA-MB-231 (Human TNBC cell line): BSL-2 • AsPC-1 Human Cell Line: BSL-2 • PANC1: BSL-2 • SNU-449 CRL-2234 Human Cell Line: BSL-2 • HPAC CRL-2119 Murine Cell Line: BSL-2 • PLC/PRF/5 CRL-9024 Human Cell Line: BSL-2 • AML12 CRL-2254 Murine Cell Line: BSL-2 • BxPC-3 CRL-1687 Human Cell Line: BSL-2 • MiaPaCa: BSL-2 • Huh7 Human Cell Line: BSL-2 • MDA-MB-468 (TNBC cell line): BSL-2 • Capan-1 HTB-79 Human Cell Line: BSL-2 • Hep3B Human Cell Line: BSL-2 • MCF10A Human Cell Line: BSL-2 • HPAF-II CRL-1997 Human Cell Line: BSL-2 • Capan-2 HTB-80 Human Cell Line: BSL-2 • HepG2: BSL-2
Applicable NIH Guidelines:	• Section III-D-1-a • Section III-D-4-a • Section III-D-4 • Section III-F • Section III-D-2-a • Section III-F-1 • Section III-D-1 • Section III-D-2 • Section III-D • Section III-D-3 • Section III-D-3-a • Section III-F-8

a. **Determination:** Modifications Required

b. **Required modifications:** Please review and respond to all comments throughout submission.

c. **Votes:**

For:	11
Against:	0
Recused:	1
Absent:	5
Abstained:	0

Initial Protocol

5. Review of SPROTO202600000007

Title:	BSL2 Virology Studies
Investigator:	Tamer Kaoud
Submission ID:	SPROTO202600000007
Description:	This research program investigates mechanisms of viral entry and gene-delivery strategies relevant to infectious disease and cancer using non-replicating viral systems and recombinant DNA technology under BSL-2 containment. 1) Viral Entry Studies To study how viruses enter mammalian cells, we will use non-replicating pseudoviral particles generated from commonly used viral vector systems that display viral glycoproteins relevant to human disease. These pseudoviral systems allow viral entry to be studied safely without using replication-competent pathogens. Experiments will evaluate small-molecule inhibitors of viral entry in established cell lines and patient-derived organoid models. Selected pseudoviral particles will also be used in Syrian hamster preclinical studies to evaluate pharmacokinetics, pharmacodynamics, safety, and efficacy of candidate compounds. These studies will be conducted under BSL-2 containment and in accordance with the approved animal protocol (IPROTO202600000005). 2) Gene Delivery Studies in Glioblastoma This component uses adeno-associated viral (AAV) vectors to deliver a therapeutic gene to glioblastoma cells lacking a key metabolic enzyme. Studies will evaluate viral vector delivery efficiency and metabolic restoration in cell culture and patient-derived models. All viral vector production and experimental procedures will be performed under BSL-2 containment using appropriate personal protective equipment and biosafety cabinet practices.
Agent Containment:	Biological Containment Levels: • HEK293T Human Cell Line: BSL-2 • AAV type26: BSL-2 • A549: BSL-2 • HeLa cells: BSL-2 • Lentivirus: BSL-2 • Calu-3: BSL-2

	• Lentivirus: BSL-2 • MMLV: BSL-2 • Caco-2 (Human Colorectal Adenocarcinoma Cells): BSL-2 • U87 Human Glioblastoma Cell Line: BSL-2 • Human Tumor Tissue: BSL-2 • Vescicular Stomatitis Virus: BSL-2 • Human Plasma: BSL-2 • Huh7 Human Cell Line: BSL-2
Applicable NIH Guidelines:	• Section III-D-4-a • Section III-D • Section III-D-3-a

a. **Determination:** Modifications Required

b. **Required modifications:** Please review and respond to all comments throughout submission.

c. **Votes:**

For:	12
Against:	0
Recused:	0
Absent:	5
Abstained:	0

REVIEW OF OTHER AGENDA ITEMS

- Administrative approvals were acknowledged.
- BSO reported that potential safety events were investigated – No exposure concerns or reportable events.
- No inspection findings to report.
- Dr. Liu is still working on community member recruitment.
- No other new business was discussed