

# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES August 20, 2020

Present:		
Excused:		
Absent:		

The Chair of the IACUC opened the meeting at 3:02 p.m.

#### 1. REVIEW OF ANIMAL CARE AND USE PROGRAM

The IACUC used the checklist provided by the OLAW website to evaluate the Health Center's animal care and use program.

The IACUC uses a 7% or less reporting rate to OLAW as indicative of effective training. To date this year, we have had 1 report to OLAW, given that we have 242 active protocols, this is a reporting rate of 0.4%; therefore, the IACUC considered that our training is effective.

The disaster plan was updated to include information regarding the IACUC which was reviewed by the Committee.

#### 2. REVIEW OF ANIMAL FACILITIES

The IACUC used the standardized review form provided by the OLAW website to review the Health Center's evaluation of the animal facilities. There were no significant deficiencies in the review of animal facilities. There were some minor deficiencies that have been corrected or on schedule to be corrected by the targeted completion date.

There was some question with regard to environmental enrichment for fish. The Committee determined that this issue will be on the September agenda to give members the opportunity to review what might be appropriate for this issue.

There was discussion of the use of BloRaft for performing the inspections and the consensus was that it went well. There were some issues of spotty WiFi access. To that end, the IO has requested information as to where WiFi signals are inadequate in order to get this addressed by the institution.

# 3. REVIEW OF ANIMAL STUDY AREAS (INVESTIGATOR LABORATORIES)

The IACUC used the standardized review form provided by the OLAW website to review the Health Center's evaluation of the animal study areas. It was noted that there were no significant deficiencies during this review cycle. There were some minor deficiencies that have been corrected or on schedule to be corrected by the targeted completion date.

#### 4. IACUC POLICY RENEWALS

The following IACUC policies were approved by the IACUC, 16-0-0:
Animal Holding in PI Laboratories
Assigning Reviewers to New Protocols
Counting Animals used in Approved IACUC Protocols
Prolonged Physical Restraint
R/O Bleeding
Tg/GT Animals
Using DMR for New Protocol Submissions

#### 5. UPDATES DISCUSSED DURING MEETING NOT ON AGENDA

The AV updated the Committee on the situation regarding controlled substances at UConn Health. Due to COVID-19, inspections for controlled substances licenses have been postponed by State and Federal Agencies. The AV has been given the approval to continue the dispensing of controlled substances to researchers until the situation resolves; this most likely will not be for 3-4 months.

# 6. SEMI-ANNUAL REPORT TO THE IO

The report to the institutional official (IO) will be written by the IACUC Administrator and will be sall IACUC members for his/her signature and then sent to the IO.	sent to

Meeting adjou	irned at 3:40 pm.	
APPROVED	Joseph Lorenzo, MD, UCH IACUC Chair	<u>9/24/20</u> Date



# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES August 27, 2020

Present:		
Excused:		
Absent:		
The Chair of the	e IACUC opened the meeting at 3:03 p.m. in the	

# 1. REVIEW OF JULY 30<sup>TH</sup> MEETING MINUTES

M/S/P to approve the July 30<sup>th</sup> meeting minutes by a vote of 18-0-0.

#### 2. REVIEW OF ANIMAL CARE APPLICATIONS

#### 2A. DEFERRED / DISAPPROVED APPLICATIONS REVIEWED BY FCR

Understanding

Understanding the Mechanisms Underlying Psychiatric Diseases: the Roles of Cramp2 and RFWD2

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* It appears that members of other laboratories will be involved in the animal handling and training of procedures; therefore, those individuals must be listed on the modification document.
- \* Justification for the 0.45mA foot shock is lacking as this is considered a punishment paradigm and would be considered painful. Performing 100 foot shocks in an hour needs to be justified. In the active avoidance protocol, the foot shock is only 0.3mA and the exposure limited. In this protocol, 0.15mA should be sufficient for the purposes of this study and should be considered.
- \* More detailed description of the 3 stressors in the SCVS procedure is needed.
- \* There is a tail suspension test in the approved protocol that was a hang for 6 minutes that, in the modification, appears to be increased to 60 minutes? Is this an error? If not, it requires justification and would be considered a pain category E.
- \* Motivation assessment using operant conditioning with 85dB and 90dB tones are used. Are personnel exposed to these tones? It is stated that 4-5 sessions/day, 50 trials/session how long is each session? A hearing risk assessment may be required based on the answer to these questions.
- \* A revised version of this modification is required to be submitted to the IACUC.

#### 2B. NEW APPLICATIONS REVIEWED BY FCR

# The role of BMP2 in postnatal growth of mandibular condyle MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* A grant number, where, requested is required.
- \* Procedural training records are required.
- \* The lay summary is too technical and needs to be rewritten. In addition, acronyms must be defined at first use.
- \* The scientific summary actually reads more like a lay summary. More information must be provided.
- \* Sequence of experimental procedures is unclear with regard to when tamoxifen is being given to the animals.
- \* All WT strains being used in the study must be identified.
- \* The discussion of the 3Rs must identify the actual painful procedure at the beginning of the narrative.
- \* Procedure descriptions require a rationale as to why certain drugs are being given to the animals.
- \* Room location list is incomplete; animals given tamoxifen will need to be housed in Chemical Isolation.
- \* Chemical safety protocol needs to be updated.
- \* It is unclear exactly which recombinant lines are being used; clarifications required.

# Pathology and Treatment of Kidney Disease

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Procedural training records are required.
- \* The lay summary needs to provide more information as to what is being done in the protocol and what the goal(s) of the research is.
- \* Sequence of experimental procedures requires more information will any one animal be involved in more than 1 of the 10 experimental designs listed?
- \* Animal numbers are unclear and seem to be less than what will be required if multiple strains of mice are to be used.
- \* Discussion of the 3Rs needs to be stated for each painful procedure being used.
- \* It appears, from the AV consultation document attached to the record, that the drug induced kidney damage models were discussed with the AV. PI should meet with the AV regarding these procedures in order to obtain appropriate information (e.g., endpoints).
- \* PI does not select appropriate named procedures (almost all procedures are listed as administration of experimental drugs) these should be corrected.
- \* It is unclear, generally, for how long drugs are to be administered.
- \* Monitoring parameters for most procedures require clarifications.
- \* Multiple methods of blood collection have been placed into one method of tail bleeding. They need to be separated.
- \* It is unclear, for many procedures, how animals will be monitored after the performance of the procedures.
- \* Information on surgical procedures are not placed into correct fields. The PI needs to follow the instructions and put only information requested in the instructions into each field. Not following this requirement renders the protocol difficult to read.
- \* Unclear what biological hazards are being used as the IACUC protocol does not seem to match the submitted IBC registration.

#### Novel Mouse Models of Neurodegenerative Disease

#### MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Sequence of experimental procedures requires more information.
- \* A tissue harvest procedure is required.
- \* Breeding procedure should state when animals are retired and describe how they are euthanized.
- \* PI states that mice will be monitored daily for breeding activities. This seems excessive and may lead to unintentional non-compliance. IACUC suggests that animals be monitored in a more reasonable frequency.
- \* It is unclear if one or two surgeries are being performed. It is suspected it is only one a perfusion for tissue collection but the PI needs to clarify.
- \* It is unclear what, if any, phenotypic issues the mice may have. The PI needs to consult with the AV and if there is a chance that the mice may have issues (e.g., reduced mobility, etc.), the PI will need to update the minimizing pain and distress section of the protocol.
- \* Methods of euthanasia section appears to be incomplete.
- \* Some Tg/GT strains require information to be sent to the IACUC describing how the lines were made.

#### 2C. MODIFICATIONS REVIEWED BY FCR

#### Immune Responses to Microbes

#### MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Add that mice from whom cecal contents will be collected will not be mice infected with human pathogens. If they are, please consult with the BSO regarding what further information will be required in the modification document.
- \* The PI should state if additional mice be needed in order to collect cecal contents.
- \* A procedure description is required for the collection of cecal contents.
- \* A revised document incorporating these changes must be submitted to the IACUC.

# Murine Models of Skeletal Repair

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* The PI met with the AV regarding the desire for toe clipping. The IACUC approved the modification document with the exception of toe clipping 2 digits from the same hind limb.
- \* A revised document incorporating these changes must be submitted to the IACUC.

### Study the Role of Leukocytes in Inflammatory Diseases

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* The PI needs to mention why the animals come from ABSL-2 and discuss why they believe animals will no longer be infectious. Mention any testing that will perform to demonstrate mice are no longer infectious.
- \* Procedure for disinfection of fexivent is required.
- \* An evaluation of the procedfure with the flexivent is required (BSO and CSS to perform).
- \* It is unclear if animals will be reperfused for 24 hours and then euthanized or if the animals will recover from the surgery (e.g., incision closed, etc.) and subsequently euthanized.
- \* PI is adding recombinant strains; they will need to complete a recombinant rodent information table.

Characterization of Treponema pallidum Rare Outer Membrane Proteins **APPROVED** 

#### 2D. ANNUAL REVIEWS BY FCR

Models of Autoimmunity

**APPROVED** 

Bionic Piezoelectric Cartilage Graft/Hydrogel Characterization in the

Presence of Cartilage Defects

Monitoring the Tissue/Organ Distribution and In Vivo Persistence of Human

ES-MSCs APPROVED

Osteoblast Lineage Plasticity in Zebrafish

**APPROVED** 

Regulation of Bone Remodeling: Role of Signaling Proteins

**APPROVED** 

miR-433 in Skeletal Cells

**APPROVED** 

Host Immune Response to Mosquito-Transmitted Viruses

**APPROVED** 

Evaluation of Bone Regeneration using a Rat Tibial and Femoral Defect

Model and Mouse Calvarial Defect Model

**APPROVED** 

How Pro-inflammatory Cytokines Block T-cell Death in vivo

**APPROVED** 

Cannabinoid and Neurotrophin Modulation of Synaptic Transmission

**APPROVED** 

Unraveling Mechanisms of Developmental Enhancer Evolution

APPROVED

#### 2E. DOCUMENTATION OF ADMIN / DMR / VVC REVIEWED PROTOCOLS AND MODIFICATIONS

The Study of Host-Gut Microbiome Interactions DMR REVIEW; =MODIFICATIONS REQUIRED

- \* Study initiation question should be "no", not "yes".
- \* All protocol associates require training documentation to be uploaded.
- \* This protocol might have to be broken down into separate protocols; there is no clear "connection" between all the activities described in the protocol.
- \* Sequence of experimental procedures is not correct and requires changes.
- \* Protocol should clearly state at what score EAE animals will be euthanized.
- \* Forced swim test requires more information regarding how the test will be performed.
- \* Some of the behavioral tests need to state what animals are expected to do or the rationale for performing the test.
- \* Room location list is incomplete.
- \* Protocol needs to identify the chemical hazards being used and a chemical safety protocol will be required.

- \* Biosafety protocol requires updating.
- \* Phenotypic pain/distress on Tg/GT lines needs to be re-written so that it can be understood.

Expression of FGFs in the Mandibular Condyles of Mice **DMR REVIEW; APPROVED** 

# HRPT2 in Fibro-osseous Jaw Lesions

#### **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Department providing funding must be specified.
- \* Sequence of experimental procedures should be simplified.
- \* Justification of animal numbers is incomplete.
- \* Genotyping of animals past 21 days requires an anesthetic.
- \* Section 9 needs to state that chemical hazards are being used.

Development of Objective Electrophysiological Tests for Tinnitus Based on Long-Lasting After-Discharges in the Inferior Colliculus

# **DMR REVIEW: MODIFICATIONS REQUIRED**

- \* Unclear if agonists are used singly or in a compound; please clarify.
- \* Indicate why experimental compounds are being used.
- \* Tatto can be stated in the identification methods.
- \* Tympanectomy is in the drop down menu; please select it.
- \* Unclear if tympenectomy is performed on one or both ears.

# Function and Regulation of the BK Channel

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Lay summary needs to be simplified.
- \* Rationale for animal number is unclear.
- \* Unclear if animals are being bred.
- \* A description is required for the tissue harvest procedure.
- \* A controlled substance license is required.
- \* PI had stated in emails to IACUC office of the requirement for decapitation without anesthesia; that needs to be checked off in the protocol.

# Developing Immunotherapy against Infectious Diseases and Cancer

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* This is not a GLP study, so please remove that response and select an appropriate response.
- \* No knock down experiments for PD-L1 are mentioned in your scientific summary. Please clarify.
- \* You cannot ask reviewers to read your grant to find out how you will perform experiments you need to explain everything in your protocol.
- \* Define NP and scFV vaccine vectors.
- \* There needs to be a procedure for the HBV model generation.
- \* Room locations are incorrect.
- \* Species specific enrichment must be selected.
- \* The "AAV-HBV" model of HBV persistence, if it involves introducing AAV with HBV or HBV sequences into mice, constitutes a recombinant experiment that is <a href="not">not</a> covered in IBC14-040. PI has confirmed it is recombinant but it is not performed here.

#### Neural Basis of Active Avoidance Behavior

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Lay summary requires corrections.
- \* Sequence of experimental procedures needs corrections.
- \* Rationale for requested animal numbers requires more information.
- \* Discussion of the 3Rs is incomplete.
- \* More information is required in the avoidance behavioral test.
- \* Dosage of isoflurane needs to be corrected.

- \* Isoflurane scavenging needs to be evaluated.
- \* Recombinant and safety issues need to be resolved.

# The Role of Cellular Senescence in TMJ Degeneration DMR REVIEW: MODIFICATIONS REQUIRED

- \* Training documentation is required.
- \* Lay summary needs to be re-written in less scientific terms.
- \* Requested WT strains to be used are required.
- \* Narrative for the discussion of the 3Rs needs to be corrected.
- \* Room locations needs to include CCM Chemical Isolation.
- \* Recombinant use section requires more information.

# Calcium Signaling Mechanisms Underlying Stroke DMR REVIEW; MODIFICATIONS REQUIRED

- \* Training records are required for all research associates.
- \* Sequence of experimental procedures is confusing and requires clarifications.
- \* WT strains should be noted where requested.
- \* Literature search is not required and should be removed.
- \* Discussion of the 3Rs is insufficient and requires more information.
- \* All "N/A" comments with regard to monitoring procedures needs to be removed.
- \* PTZ is a hazard and needs to be addressed as directed.
- \* Protocol does have MMSS, so this needs to be indicated.
- \* Many of the surgical information has been placed into the wrong sections and require corrections.
- \* Buprenorphine must be given twice per day for 2 days after surgery.
- \* Instruments must be autoclaved prior to first use. A maximum of 10 animals can be used per autoclaved set of instruments.
- \* Room locations are incomplete.
- \* PI will require licenses for controlled substances.
- \* Chemical safety protocol will require updating.

# Regulation of Borrelia burgdorferi Genes in vivo

# **DMR REVIEW; APPROVED**

Host Immune Response to Mosquito-Transmitted Viruses

#### DMR REVIEW; MODIFICATIONS REQUIRED

- \* Blood collection must be limited to 0.11-0.14 ml per day.
- \* As described, it appears this is a study that will be conducted exclusively in adult animals. A range of ages should be specified.
- \* Medipoint lancets for adult animals for blood collection should be considered; please consult with the Attending Veterinarian.
- \* Step 3 refers to adult parental mice please confirm.
- \* If a phenomenon similar to FcRn deficiency is expected, blood collection and 2d of age could be considered. FcRn-/- pups fostered on WT mothers have only 10% chance of the starting dose remaining at 4 days after birth.
- \* A revised document incorporating these changes needs to be submitted to the IACUC office.

Bionic Piezoelectric Cartilage Graft/Hydrogel Characterization in the Presence of Cartilage Defects

# **ADMINISTRATIVE REVIEW; MODIFICATIONS REQUIRED**

\* TN requires medical clearance from EHS.

MicroRNA Regulated Immunology and Hematopoesis

ADMINISTRATIVE REVIEW; APPROVED

Aging and Determinants of Bladder Volume Sensitivity **DMR REVIEW; APPROVED** 

Investigation of BACE1 Physiological Function and AD Pathology using BACE1 Conditional Knockout Mice

DMR REVIEW; APPROVED

The Role of the Microbiome in Asthma

#### **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Section 4- mention why the animals come from ABSL-2. Discuss why you believe animals will no longer be infectious. Mention any testing you will perform to demonstrate mice are no longer infectious.
- \* Section 4- Procedure for disinfection of the flexivent needs to be added. A Walk-thru of the procedure with flexivent required with BSO and CSS.
- \* Section 4- Who is going to be performing this procedure? What experience do they have? If none, who is going to be training on this procedure?

Skeletal Stem Cells

**DMR REVIEW; APPROVED** 

Hematopoietic Stem Cells - A Study of their Developmental Regulation, Self-Renewal, and Differentiation

**ADMINISTRATIVE REVIEW; APPROVED** 

Human induced Pleuripotent Stem Cells (hiPSC) - Generation of Immune

**Humanized Mice** 

**ADMINISTRATIVE REVIEW; APPROVED** 

Effects of methyl donor deficiency on intestinal tumorigenesis

**ADMINISTRATIVE REVIEW; APPROVED** 

Calcium Signaling Mechanisms in Cardiac Fibrosis

ADMINISTRATIVE REVIEW; APPROVED

Microbiome Interactions with the Immune System

ADMINISTRATIVE REVIEW; APPROVED

Mesenchymal Progenitor Cell Differentiation ADMINISTRATIVE REVIEW; APPROVED

How Proinflammatory Cytokynes Block T-cell Death in vivo

**DMR REVIEW; APPROVED** 

Rabbit ACL Reconstruction Model with Synthetic ACL Substitutes

**ADMINISTRATIVE REVIEW; APPROVED** 

Drinking-in-the-Dark (DID)

**ADMINISTRATIVE REVIEW; APPROVED** 

Hematopoietic Stem Cells - A Study of their Developmental Regulation, Self-

Renewal, and Differentiation

ADMINISTRATIVE REVIEW; APPROVED

Human induced Pleuripotent Stem Cells (hiPSC) - Generation of Immune

**Humanized Mice** 

**ADMINISTRATIVE REVIEW; APPROVED** 

	Investigation of BACE1 Physiological Function and AD Pathology using BACE1 Conditional Knockout Mice ADMINISTRATIVE REVIEW; APPROVED
	Skeletal Stem Cells ADMINISTRATIVE REVIEW; APPROVED
	Mouse Rotator Cuff Defect Model ADMINISTRATIVE REVIEW; APPROVED
3. MISCE	ELLANEOUS/CONTINUING DISCUSSIONS
A.	PAWS reviews – none
B.	Expired training and OHS enrollments All individuals with expired training and/or OHS enrollment will be removed from the protocols effective 9/1/20. Any PI with expired training and/or OHS enrollment will have all protocols withdrawn effective 9/1/20.
C.	Protocol withdrawals due to no annual review submitted – none
Meeting adjour	ned at 4:03 p.m.
APPROVED:	Joseph Lorenzo, M.D., UCH IACUC Chair



# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES September 24, 2020

Present:		
Excused:		
Absent:		

The Chair of the IACUC opened the meeting at 3:03 p.m. via conference call.

# 1. REVIEW OF AUGUST 20<sup>TH</sup> AND 27<sup>TH</sup> MEETING MINUTES

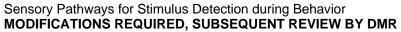
M/S/P to approve the August 20<sup>th</sup> meeting minutes by a vote of 18-0-0. M/S/P to approve the August 27<sup>th</sup> meeting minutes by a vote of 18-0-0.

### 2. REVIEW OF ANIMAL CARE APPLICATIONS

#### 2A. DEFERRED / DISAPPROVED APPLICATIONS REVIEWED BY FCR

None

# 2B. NEW APPLICATIONS REVIEWED BY FCR



- \* Lay summary needs to be simplified and requires an overview of the experimental design.
- \* Water restriction experiment is unclear as to when water is going to be provided and how it will be ensured that animals are drinking at least 1.5ml per day.
- \* It is not clear what an eye condition test is for monitoring water restriction.
- \* PI needs to state if researchers are exposed to the high level sound being used in behavioral testing.
- \* Clarifications are required on anesthesia dosage and maintenance.
- \* Species specific enrichment must be used.
- \* r/sNA sections needs to be clarified regarding the use of AAV.

Assessment of Healing of Cutaneous Wounds

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Unclear as to who will actually be performing procedures on animals.
- \* Lay summary requires an overview of the experimental design.
- \* Breeding animals must be placed in pain category B.
- \* A procedure for changing bandages is required.
- \* Elaborate more on the types of dressings/bandages/hydrogels. In the overview a microneedle-mediated drug release is mentioned. How is this done?
- \* Immediate post-operative section requires more information.
- \* Animals require 2 doses of Buprenorphine after surgery.
- \* Room locations are unclear

Near-IR Ratiometric Fluorescence Probes for Assessing Cargo Delivery to Prostate Tumor

#### MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Lay summary is too scientific and also requires an overview of the experimental design.
- \* Sequence of experimental procedures is incomplete and in an incorrect format.
- \* Please explain further how you determined that 5 mice per time point was adequate. Was a power analysis performed? The extra mice provided would suggest a 20% death rate. Can you comment on any previous work or publications indicating a death rate?
- \* Search for alternatives is incomplete.
- \* A procedures is required for the injection of probes.
- \* The surgical site 10 mm above the base of the tail? Its confusing and not accurate. SQ implantation are done usually at Flank Region (rear), and near the neck region. Just indicate that a horizontal incision of 5mm directly over the flank. For closure of the incision, vetbond or single suture knot may be needed, especially if you anticipate a tumor growth. Use absorbent suture material like Vicryl (simple interrupted suture).
- \* Isoflurane must be selected as a hazard and all questions answered.
- \* An animal biological safety protocol is required

# 2C. MODIFICATIONS REVIEWED BY FCR

Regulation of Channel Function **APPROVED** 

In vivo Hemi Limb Defect Model for Hemi Limb Regeneration

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* The IACUC has concerns that the primary surgeon has been deleted and an individual added who, from training records, has not performed any live rabbit surgery.
- \* This surgery did not appear to be successful in rats. Because of this and the lack of experience of the new surgeon, the IACUC will allow this procedure in one rabbit only and under the direct supervision of the Attending Veterinarian (AV).
- \* The external fixator device must be evaluated by the AV prior to use.
- \* One day after surgery is too soon for gait analysis; the limb will not be strong enough and the animal will be in unacceptable pain and the IACUC considers this inhumane. Please discuss the timing of procedures in this modification with the AV prior to sending in a revised document.
- \* Expand the sequence of experimental procedures section for the "Study2/Phase II" section. There are 3 groups in that phase and the timing is different because some rabbits are getting the defect and the IGS implant at the same time while others are getting the defect and then waiting 14 days to

get the implant. The way it is written makes it difficult to tell the difference between the groups. Adding distinct sequences for each of the 3 groups would avoid this confusion. Also, in the section it states "168 days" when in other sections, it states 26 weeks which is 182 days. These should be consistent.

- \* What is the difference between the acute and sub-acute groups? It is unclear.
- \* Do you require an increase in animals?
- \* Please provide documentation of x-ray imaging training.
- \* A new document addressing all of these issues must be submitted to the IACUC. Please use the copy that is sent to you, use a different color for your changes, and please do not use "track changes". If you do, it will returned.

Murine Models of Skeletal Repair

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

\* Are human cells used in this construct? Please provide more information about what is in the construct to be used.

#### 2D. ANNUAL REVIEWS BY FCR

Study the Role of Leukocytes in Inflammatory Diseases

**APPROVED** 

Pharmacokinetic and Efficacy Studies of Novel Compounds

**APPROVED** 

Screening Potent Compounds for Alzheimer's Disease Treatment

**APPROVED** 

Function and Signaling Mechanism of Cardiac P2X4-Receptor

**APPROVED** 

Chemopreventative Effects of TP-252 With or Without Naproxen on PIRC

Rat Model of FAP

**APPROVED** 

Enhancing Subcutaneous Insulin Delivery

**APPROVED** 

Role of Vascular Networks in Continuous Glucose Monitoring

**APPROVED** 

In vivo Evaluation of Mesh Biocompatibility

**APPROVED** 

Autologous Whole Tissue Cancer Immunotherapy

**APPROVED** 

Effects of Alendronate Treatment on the Rate of Orthodontic Tooth

Movement in Osteogenesis Imperfecta

**APPROVED** 

Characterization of Articular Changes in Osteoarthritis after Controlled

Release of Adipose Derived Stem Cells

**APPROVED** 

MicroRNA Regulated Immunology and Hematopoiesis

APPROVED

Cellular and Molecular Mechanisms of Renal Fibrosis

**APPROVED** 

Calcium Signaling Mechanisms in Cardiac Fibrosis

**APPROVED** 

Role of Notch in Arthritis

**APPROVED** 

Microgliosis in Globoid Cell Leukodystrophy

**APPROVED** 

### 2E. DOCUMENTATION OF ADMIN / DMR / VVC REVIEWED PROTOCOLS AND MODIFICATIONS

Identification of Gene Products Involved in Acute Infection and Renal Persistence of Leptospira (mice)

# **DMR REVIEW: MODIFICATIONS REQUIRED**

- \* Sequence of experimental procedures needs clarifications.
- \* Unclear if *Peromyscus* mice are being used in this protocol.
- \* Ketamine cocktail needs to be included in drug tables.
- \* Ketamine requires controlled substance licenses.
- \* Unclear what analgesics are being used in this study.
- \* Method of confirmation of death after CO<sub>2</sub> narcosis needs to be stated.

Identification of Gene Products Involved in Acute Infection and Renal Persistence of Leptospira (hamsters)

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Title states hamsters but species states mice.
- \* Bacteria needs to be added to the table describing its use.
- \* Unnamed procedure is in the drop down list and should be selected.
- \* Not clear if diuretic is being used with this species.
- \* Unclear where analgesics are being used.
- \* Method of confirmation of death after CO<sub>2</sub> narcosis needs to be stated.
- \* Biosafety protocol requires updating.

Identification of Gene Products Involved in Acute Infection and Renal Persistence of Leptospira (rats)

#### **DMR REVIEW: MODIFICATIONS REQUIRED**

- \* Title states rats but species states mice; this needs to be clarified.
- \* All information regarding literature search is not required and needs to be removed.
- \* Discussion of 3Rs should remove reference to search.
- \* Ketamine cocktail needs to be included in drug tables.
- \* Unnamed procedure is in the drop down list and should be selected.
- \* Ketamine requires controlled substance licenses.
- \* Method of confirmation of death after CO<sub>2</sub> narcosis needs to be stated.
- \* Biosafety protocol requires updating.

Focused Ultrasound Stimulation for Spinal Cord Injury

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Sequence of experimental procedures requires clarifications.
- \* Literature search not required remove.
- \* It is unclear why probes cannot be sterilized.
- \* Toe pinch must be used to assess level of anesthesia.
- \* More information regarding the use of isoflurane is required.

Investigation of Hormone Action, Imprinting, Ossifications, and Skeletal / Dental Abnormalities in a Mouse Model of Albright Hereditary Osteodsystrophy

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* The title needs to be placed into the protocol document.
- \* The lay summary requires more information.
- \* Sequence of experimental procedures needs to be re-written.
- \* Rationale for animal numbers should state what mutations are being used (e.g., knock-outs).
- \* Unclear when genotyping is going to be performed.
- \* No clear why so many endpoints were stated to be used when no significant manipulations are going to be performed on the animals.
- \* Species specific enrichment must be used.
- \* An appropriate method of confirmation of death after CO<sub>2</sub> narcosis must be stated.

# Development of Canine Tumor PDX Models with or without Canine Immune Cell **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Mouse strain should indicate WT strains to be used; if none, state no WT lines are to be used.
- \* Your adoptive transfer procedure involves 2 steps (irradiating the mice then injecting them with cells). This can be described in one procedure, but because the steps occur 24 hours apart, it would be best to have 2 separate procedures. (This is how it was done in the protocol that is being renewed.) Keep the first procedure as "Irradiation" and rename "Implantation of cells by Injection" to "Adoptive Transfer IV".
- \* Named procedures are required to be used.
- \* Cells to be used in stereotaxic injections need to be described.\
- \* Appears that the protocol has references to Jackson Labs SOPs that are not the same as UCH requirements with regard to sutures. This needs to be resolved.

#### Dopaminergic Modulation of the Developing Cortex

# DMR REVIEW; MODIFICATIONS REQUIRED

- \* Lay sumary is too detailed and experimental aims should be in scientific summary.
- \* Sequence of experimental details should not have experimental design information- just what is happening and when.
- \* Old protocol had a breeding procedure; it is unclear if one is required in this 3year renewal.
- \* Level of anesthesia should be assessed by toe pinch, not shaking the animal.
- \* GMO numbers on RRIT are incorrect; correct numbers have been given to the PI. The table should be corrected and re-attached.

### The Effect of Sepsis on Cardiac Function

#### **DMR REVIEW: MODIFICATIONS REQUIRED**

- \* There are formatting issues that make some sections difficult to read; for instance, paragraphs should be separated so that they do not run together.
- \* Scientific summary should be different from the lay summary.
- \* Sequence of experimental procedures it is not clear how the 3 timelines are different.
- \* At the start of the 3R narrative, it should be stated what the painful procedure is. In addition, references to searches should be removed as no searches were required nor performed.
- \* To remain consistent with what is stated in the overview and sequence of experimental procedures, change the sentence to read: "Echocardiogram will be performed before CLP or sham surgery and either 24, 48, 72 or 96 hours after surgery." In addition, use "approximate" prior to timings to avoid any unintentional non-compliance.

* How is it determined that animals are appropriately anesthetized? Here you
should state that you will use a new set of instruments after "x" amount of
animals. Your last two sentences do not belong here- they belong in the
immediate post operative care section.

Function and Regulation of the BK Channel **DMR REVIEW; MODIFICATIONS REQUIRED** 

\* Rationale for use of animals and species need to be entered into the document.

Evaluation of the Role of mPGES-1 in Mouse Tumor Models

**DMR REVIEW; APPROVED** 

Porphyromonas gingivalis Glycine Lipids Mediate Bone Loss through TLR2

**DMR REVIEW; APPROVED** 

HRPT2 in Fibro-osseous Jaw Lesions **ADMINISTRATIVE REVIEW; APPROVED** 

Hormonal Control of Calcium Metabolism: Parathyroid Cell Neoplasia

**ADMINISTRATIVE REVIEW; APPROVED** 

Cyclin D1 PRAD1 in Mammary Neoplasia **ADMINISTRATIVE REVIEW; APPROVED** 

Effects of Alendronate Treatment on the Rate of Orthodontic Tooth Movement in

Osteogenesis Imperfecta

**ADMINISTRATIVE REVIEW; APPROVED** 

In vivo BioID using sarcomere BioID

**DMR REVIEW; APPROVED** 

Thioredoxin-1 Reprogrammed Exosomes Promote Cardiac Repair

**ADMINISTRATIVE REVIEW; APPROVED** 

Murine Models of Skeletal Repair

**ADMINISTRATIVE REVIEW; APPROVED** 

Hematopoietic Stem Cells - A Study of their Developmental Regulation, Self-

Renewal, and Differentiation

ADMINISTRATIVE REVIEW; APPROVED

Human induced Pleuripotent Stem Cells (hiPSC) - Generation of Immune

**Humanized Mice** 

ADMINISTRATIVE REVIEW; APPROVED

Protocol Title: Biodegradable Piezoelectric Wound Dressing

ADMINISTRATIVE REVIEW; APPROVED

Biodegradable Ultrasonic Transducer for Disrupting the Blood-brain Barrier for

**Drug Delivery** 

ADMINISTRATIVE REVIEW; APPROVED

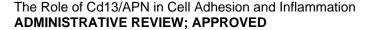
Development of a Mouse Model to Study Fertility after Androgen Administration

**ADMINISTRATIVE REVIEW; APPROVED** 

Pharmacokinetic and Efficacy Studies of Novel Compounds

**DMR REVIEW; APPROVED** 

Role of P2X4R in Ischemic Stroke ADMINISTRATIVE REVIEW; APPROVED
Effect of Neuroprotective and Neuro-rehabilitatory Agents on Post-stroke Recovery <b>ADMINISTRATIVE REVIEW</b> ; <b>APPROVED</b>
Influence of Aging on Immune Response ADMINISTRATIVE REVIEW; APPROVED
Influence of Aging on Immune Response ADMINISTRATIVE REVIEW; APRPOVED
Study on the Role of Inflammation and Immunity in Cancer DMR REVIEW; APPROVED
Soft-Actuated Bionic Regenerative Engineering ADMINISTRATIVE REVIEW; APPROVED
Calcium Signaling Mechanisms in Cardiac Fibrosis ADMINISTRATIVE REVIEW; APPROVED
Characterization of Limb Regeneration using a Pseudarthrosis Model ADMINISTRATIVE REVIEW; APPROVED
Function and Regulation of the BK Channel  DMR REVIEW; APPROVED
COX-2 Regulation of Bone Responses to PTH ADMINISTRATIVE REVIEW; APPROVED
Immune Response to Tumor Neoepitopes ADMINISTRATIVE REVIEW; APPROVED
The Nervous System as a Regulator of Immune Homeostasis ADMINISTRATIVE REVIEW; APPROVED
Synergism of Antiproliferative effect of Vitamin D3 and Ibuprofen in Intestinal Tumorigenesis  ADMINISTRATIVE REVIEW; APPROVED
Molecular Mechanisms of Neuronal Development and Axon Regeneration ADMINISTRATIVE REVIEW; APPROVED
Calcium Signaling Mechanisms in Cardiac Fibrosis ADMINISTRATIVE REVIEW; APPROVED
In Vivo Determination of the Reduction of Metallosis from Arthroplasty Metallic Implant Degradation Products via Dimercaprol-functionalized Glycosaminoglycan Chelation Therapy.  ADMINISTRATIVE REVIEW; APPROVED
Characterization of Articular Changes in Osteoarthritis after Controlled Release of Adipose Derived Stem Cells ADMINISTRATIVE REVIEW; APPROVED
Rabbit ACL Reconstruction Model with Synthetic ACL Substitutes ADMINISTRATIVE REVIEW; APPROVED



COX-2 Regulation of Bone Responses to PTH **ADMINISTRATIVE REVIEW**; **APPROVED** 

#### 3. MISCELLANEOUS/CONTINUING DISCUSSIONS

- A. PAWS reviews None
- B. Expired training and OHS enrollments
  All individuals with expired training and/or OHS enrollment will be removed from the
  protocols effective 10/1/20. Any PI with expired training and/or OHS enrollment will
  have all protocols withdrawn effective 10/1/20.
- C. Protocol withdrawals no annual review submitted None
- D. Fish enrichment

The IACUC discussed the use of enrichment in fish. It was determined that the IACUC would strongly recommend group housing as the main enrichment methodology. If structural enrichment is requested by the PI, s/he should consult with the Attending Veterinarian. The IACUC Policy on enrichment will be modified to include this information.

E. Extended release Buprenorphine UCH now has the opportunity to buy and use extended-release Buprenorphine. Pls who wish to use it will be required to modify their protocols to describe its use.

Meeting adjour	med at 3:55 p.m.		
APPROVED:		10/29/20	
	Joseph Lorenzo, M.D., LICH JACUC Chair	Date	



# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES October 29, 2020

Presen	t:
Excuse	d:
Absent	
The Ch	air of the IACUC opened the meeting at 3:06 p.m. via teleconference.
1.	REVIEW OF SEPTEMBER 24 <sup>TH</sup> MEETING MINUTES
M/S/P t	o approve the September 24 <sup>th</sup> meeting minutes by a vote of 20-0-0.
2.	REVIEW OF ANIMAL CARE APPLICATIONS
2A.	DEFERRED / DISAPPROVED APPLICATIONS REVIEWED BY FCR
None	
2B.	NEW APPLICATIONS REVIEWED BY FCR
None	
2C.	MODIFICATIONS REVIEWED BY FCR
	Humanized Mouse Models to Study Vaccines  MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR  * Chemical safety protocol is required.  * Need to figure out where the animals are going to be housed as the new work requires CT DPH registration. Choices are: 1) work in and get that room registered with CT DPH; or 3) work in an and get that room registered with CT DPH; or 3) work in an

Institutional Animal Care and Use Committee

IACUC.

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Chemopreventative Effect of Urolithin A and Ellagic Acid on DSS-induced Ulcerative Colitis

### MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* It is not clear which mice will be receiving tamoxifen nor the timing of the administration of tamoxifen in relation to the other procedures being performed.
- \* It is not clear how long animals are required to be fasted prior to colonoscopy. If >24 hours, then animals are to be pain category E and a consultation with the AV and a 3R discussion of this fasting is required.
- \* Must submit documentation of any consultation with revised modification.
- \* The chemical safety protocol is required to be updated.
- \* In what substances is the ellagic acid dissolved?
- \* How much blood is collected?
- \* Remove the PICR rats from the transgenic table they are not genetically modified animals.
- \* A new modification addressing these concerns must be submitted to the IACUC.

### Immune Response to Tumor Neoepitopes

#### MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Are tumors expected to metastasize? If yes, the pain category is "D" and a narrative for 3Rs is required. If not, state that.
- \* Please discuss how you will monitor the rate of growth in the animals. What is the expected rate of growth? Please state that you will comply with the IACUC policy on tumors.
- \* A new modification addressing these concerns must be submitted to the IACUC.

Chemopreventitive effects of TP-252 with or without Naproxen on PIRC model of FAP

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* It is no clear why animals must be fasted for 48 hours prior to colonoscopy. If >24 hours, then animals are to be pain category E and a consultation with the AV and a 3R discussion of this fasting is required.
- \* Must submit documentation of any consultation with revised modification.
- \* A new modification addressing these concerns must be submitted to the IACUC.

Biodegradable Ultrasonic Transducer for Disrupting the Blood-brain Barrier for Drug Delivery

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* It is stated that the "tumor growth will be monitored through bioluminescence under the IVIS system". For this to be possible the cells implanted need to have the luciferase gene and the mice need to be injected with luciferin as part of the IVIS imaging. They need to state that the cells contain the luciferase gene. It should also state the dosage of the luciferin they are injecting.
- \* Please provide the pain categories for all the mice being added.
- \* Please consult with the AV prior to resubmitting this modification; there is a concern that the pain category would be "D"; if that is the case, then a narrative for the 3Rs is required.
- \* Athymic nude mice are not recombinant, so please remove them from the Tq/GT table.
- \* A combination Bio/Chem safety protocol is required. Please consult with the BSO and Chemical Safety Officer.
- \* A new modification addressing these concerns must be submitted to the IACUC.

Hematopoietic Stem Cells - A Study of their Developmental Regulation, Self-renewal, and Differentiation

# MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Please state that mice will be deeply sedated, not anesthetized by the belljar method. Otherwise, you are required to use a vaporizer to anesthetize animals.
- \* This requires IBC modification; please contact the BSO for information.
- \* Provide the pain categories for the animals to be added.
- \* Please update the sequence of experimental procedures so the IACUC understands when these new procedures are being performed in relation to the project as a whole.
- \* A new modification addressing these concerns must be submitted to the IACUC.

Study the Role of Leukocytes in Inflammatory Diseases **APPROVED** 

#### 2D. ANNUAL REVIEWS BY FCR

Biodegradable Piezoelectric Wound Dressing

**APPROVED** 

Understanding Phenotype of Mouse Model for Proximal Colorectal Cancer

**APPROVED** 

Immune Responses to Microbes

**APPROVED** 

Thioredoxin-1 Engineered Exosomes in Sepsis

**APPROVED** 

Thioredoxin-1 Engineered Exosomes in Wound Healing

**APPROVED** 

Guinea Pig - Delivery of Injectable Skin Pigmentation and Removal

**APPROVED** 

Rat Achilles Tendon Injury Model

**APPROVED** 

Delivery of Regenerative Compounds into the Drug Damaged Inner Ear of

Guinea Pigs

**APPROVED** 

Developing a New Therapeutic Strategy to Treat Lapatinib Resistant HER2

Positive Gastric Cancer

**APPROVED** 

FGF Receptors in Myelin Function and Disease

**APPROVED** 

\* Post meeting note: the annual review was submitted.

Rederivation and Cryopreservation of Mouse Strains

**APPROVED** 

COX-2 Regulation of Bone Responses to PTH

APPROVED

Developing a Mouse Model for Symptomatic Apical Periodontitis **APPROVED** 

Erythropoiesis and Bone Homeostasis in Sickle Cell Disease and Sickle Cell Trait Mice

**APPROVED** 

Determining Acid Load in Adult Mice

**APPROVED** 

Proteomic and Functional Analyses of Exosomes in EAE **APPROVED** 

#### 2E. DOCUMENTATION OF ADMIN / DMR / VVC REVIEWED PROTOCOLS AND MODIFICATIONS

Epigenetic Profiling of Mouse Embryonic Development

# DMR REVIEW; MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Is this really a new protocol or a renewal of
- \* Procedural training records must be uploaded into the document.
- \* "None apply" checkbox in protocol checklist needs to be removed.
- \* RRCF upload needs to be removed.

Rabbit Tibial Cortical Defect

# DMR REVIEW; MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* The correct necropsy room is required.
- \* "Imaging using ionizing radiation" must be checked in the hazard section.

Evaluation of the Role of mPGES-1 in Mouse Tumor Models

#### DMR REVIEW; MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* This protocol is a 3-year renewal and does not require another merit review.
- \* 3R narrative requires more information.
- \* Unclear where analgesics are being used.
- \* Method to confirm death after CO<sub>2</sub> narcosis must be listed.
- \* Tamoxifen must be added to the chemical hazard list and the animal chemical safety protocol requires updating.
- \* RRIT needs corrections.

Long Non-Coding RNAs in Asthma

# DMR REVIEW; MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* This protocol is a 3-year renewal and does not require another merit review.
- \* The lay summary is too scientific.
- \* The scientific summary cannot reference the lay summary; these are two distinct requirements.
- \* Sequence of experimental procedures requires clarifications.
- \* Strain/stock/breed question requires corrections.
- \* Rationale for animal numbers requires more information.
- \* "Aerosolization" procedure should be replaced by "Administration of experimental compounds" as what is being described is intranasal inoculations, not aerosolizations.
- \* Procedures need to be discreet they are mixed up throughout the document and it is difficult to understand.
- \* Mice should be checked after R/O bleeding to ensure that there was no damage to the eye.
- \* No room locations were identified.

Testing a Novel 4 in 1 Medical device in a Pediatric Model of Esophageal Surgery **VVC REVIEW; APPROVED** 

Basic Fibroblast Growth Factor Expression in Bone Cells ADMINISTRATIVE REVIEW; APPROVED
The Effects of Methyl Donor Deficiency on Intestinal Tumorigenesis ADMINISTRATIVE REVIEW; APPROVED
Function and Regulation of the BK Channel ADMINISTRATIVE REVIEW; APPROVED
Influence of Aging on Immune Response ADMINISTRATIVE REVIEW; APPROVED
Biodegradable Ultrasonic Transducer for Disrupting the Blood-brain Barrier for Drug Delivery ADMINISTRATIVE REVIEW; APPROVED
Erythropoiesis and Bone Homeostasis in Sickle Cell Disease and Sickle Cell
MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR  * What is the rationale for hypothesizing that subcutaneous injection of PRG4/lubricin might attenuate SCD associated OA, bone loss and anemia?  * What is the source of the PRG4/lubricin that will be injected?
Rederivation and Cryopreservation of Mouse Strains ADMINISTRATIVE REVIEW; APPROVED
Development of Controlled Release Analgesics ADMINISTRATIVE REVIEW; APPROVED
Intracranial PDX Mouse Models ADMINISTRATIVE REVIEW; APPROVED
Angiogenic Regulators in Ischemic Disorders  ADMINISTRATIVE REVIEW; APPROVED
Thioredoxin-1 Engineered Exosomes in Sepsis ADMINISTRATIVE REVIEW; APPROVED
Thioredoxin-1 Engineered Exosomes in Wound Healing ADMINISTRATIVE REVIEW; APPROVED
Thioredoxin-1 Reprogrammed Exosomes Promote Cardiac Repair ADMINISTRATIVE REVIEW; APPROVED
Models of Autoimmunity ADMINISTRATIVE REVIEW; APPROVED
Cellular and Molecular Mechanisms of Renal Fibrosis  ADMINISTRATIVE REVIEW; APPROVED
Immune Responses to Microbes ADMINISTRATIVE REVIEW; APPROVED
Characterization and Development of Cure for GSD Mouse Models ADMINISTRATIVE REVIEW; APPROVED
Role of TGF-beta Signaling in Regulation of Muscle Mass and Function <b>ADMINISTRATIVE REVIEW; MODIFICATIONS REQUIRED</b> * A rationale for the use of a new Tg/GT line must be included in the modification.

Chemopreventive Effect of Ifetroban and/or Sulindac on Tumor Formation in PIRC Model **ADMINISTRATIVE REVIEW; APPROVED** Understanding Phenotype of Mouse Model for Proximal Colorectal Cancer **ADMINISTRATIVE REVIEW; APPROVED** Cellular and Molecular Mechanisms of Renal Fibrosis **ADMINISTRATIVE REVIEW; APPROVED** Modification of the mouse genome DMR REVIEW; MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR \* This modification requires IBC approval (which is already submitted for the November 12 IBC meeting) because the bovine iPSC are recombinant. They have been transduced with murine retroviruses for reprogramming and when the embryos are transferred into pseudomoms, it becomes a recombinant experiment. There is a question about which containment level should be required given that the mice are permissive for murine retroviral vectors and the IBC needs more details about the retroviral vector production system producing replication competent retrovirus free vector preps. Characterization of Articular Changes in Osteoarthritis after Controlled Release of Adipose Derived Stem Cells DMR REVIEW; MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR \* The PI needs to complete the section in addition of drugs as to why those drugs are being used. Regulation of Retinal Angiogenesis and Vascular Integrity by the Oxygen Sensing Mechanism ADMINISTRATIVE REVIEW; APPROVED Induction of Immune Tolerance through Cannabinoid Receptors **ADMINISTRATIVE REVIEW; APPROVED** Drinking-in-the-Dark (DID) ADMINISTRATIVE REVIEW; APPROVED Development of Controlled Release Analgesics **DMR REVIEW; APPROVED** Neural Basis of Active Avoidance Behavior **VVC REVIEW; APPROVED** Role of Notch and NFATc in Bone Cells **ADMINISTRATIVE REVIEW; APPROVED** The Role of Senescent Cells in Type-2 Diabetes and Frailty **ADMINISTRATIVE REVIEW; APPROVED** 

The Role of Senescent Cells in Type-2 Diabetes and Frailty
ADMINISTRATIVE REVIEW; APPROVED

Assessment of Healing of Cutaneous Wounds
ADMINISTRATIVE REVIEW; APPROVED

Mesenchymal Progenitor Cell Differentiation
ADMINISTRATIVE REVIEW; APPROVED

Bone Directed Transplantation of MSCs as Therapy for Osteogenesis Imperfecta
ADMINISTRATIVE REVIEW; APPROVED

# Aging and Determinants of Bladder Volume Sensitivity **ADMINISTRATIVE REVIEW; APPROVED**

#### 3. MISCELLANEOUS/CONTINUING DISCUSSIONS

A. PAWS reviews - None

### B. Expired training and OHS enrollments

All individuals with expired training and/or OHS enrollment will be removed from the protocols effective 11/1/20. Any PI with expired training and/or OHS enrollment will have all protocols withdrawn effective 11/1/20.

#### C. Protocol withdrawals – no annual review submitted

All protocols which did not have an annual review submitted to the IACUC will be withdrawn on 10/30/20.

#### D. ImStem non-compliance

The IACUC discussed the issue. What has to be decided is how to ensure that when people have left UCHC, their access to the facility is withdrawn. The Chair will send a letter to the PI regarding this non-compliance.

# E. November facility inspection

The facility inspection will be at 9:00am on 11/20/20. The participants will be:

. Please meet in the office for assignments.

# F. Safety protocols – Word documents

An update of the status of new Word document safety protocols was given. The form will be a bio/chem combined document with individuals completing only the applicable sections for their own work. If people want to review the Word document, please contact the BSO or the Chemical Safety Office for information.

# G. Rabbit death, IACUC protocol #

The AV gave an overview of the incident. At gross necropsy, the left lung looked damaged and the right lung looked fine. The thought is that the rabbit had compromised lung compliance due to manual deflation and re-inflation of the lungs as this is common in rabbits. Final necropsy report is pending. The IACUC considered this to be an unfortunate complication from the surgery and not due to any non-compliance on the part of the researchers.

# H. Rabbit deaths, IACUC protocol #

The AV gave an overview of the incidences. Surgery on both animals appeared to go well. One animal died unexpectedly after surgery; probably due to surgical stress. Final necropsy report is pending. The second rabbit died 2 days after surgery showing no clinical signs. The health report obtained from where the rabbits were obtained indicated that *Bordatella bronciseptica* was found in the room; the rabbits showed no symptoms of a *Bordatella* infection. Final necropsy reports are pending. The IACUC considered this to be an unfortunate complication from the surgery and not due to any non-compliance on the part of the researchers.

#### I. Protocol reviews (at meeting)

IACUC members are asked to complete their reviews by the assigned dates. Keeping the emails that give the due dates that are sent to reviewers might be helpful.

Meeting adjour	ned 4:24 p.m.		
APPROVED:	Joseph Lorenzo, M.D., UCH IACUC Chair	<u>11/19/20</u> Date	

Extended use buprenorphine is now available. The cost is significantly higher than standard buprenorphine. Researchers will be required to modify their IACUC protocols to use this. The AV will draft an email informing the research staff that this is now an option for use; he will send it to the IACUC administrator for distribution.

J. Extended use buprenorphine (at meeting)



# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES November 19, 2020

Present:		
Excused:		
Absent:		
	<del></del>	
The Chair of the IACUC	opened the meeting at 3:50 p.m. in the	

# 1. REVIEW OF OCTOBER 29<sup>TH</sup> MEETING MINUTES

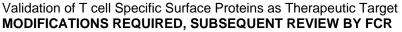
M/S/P to approve the October 29th meeting minutes by a vote of 17-0-0.

# 2. REVIEW OF ANIMAL CARE APPLICATIONS

#### 2A. DEFERRED / DISAPPROVED APPLICATIONS REVIEWED BY FCR

None

#### 2B. NEW APPLICATIONS REVIEWED BY FCR



- \* At present, there is no scientific merit for this proposal.
- \* Training records are required for all research associates.
- \* All references to hamsters must be deleted.
- \* PI must consult with AV prior to resubmitting the document.
- \* Behavioral tests are mentioned in the sequence of experimental procedures but not described in the non-surgical procedures section.
- \* Pain categories are incorrect tumor induction is not "C", but either "D" (no metastases) or "E" (potential metastases). AV consultation is required as well as more information related to pain category (e.g., 3R discussion).
- \* Rationale for animal numbers is incomplete.
- \* Method of animal restraint to be used when injecting human cells needs to be stated.
- \* Unclear of the blood volume to be collected and the number of times this is done to an individual animal; PI needs to consult with the AV.
- \* More information is required as to what types of cell lines are going to be used with what type of procedure.

Institutional Animal Care and Use Committee

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- \* Endpoint of BSC of 1 may be too extreme; please consult with the Attending Veterinarian,
- \* Method of confirmation of death after CO<sub>2</sub> narcosis needs to be provided.
- \* RRIT requires changes.
- \* PI needs to confirm that no recombinant material will be implanted into animals.

# 2C. MODIFICATIONS REVIEWED BY FCR

Molecular Targets of Corneal Anti-angiogenesis and Retinal Gliosis MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Is extended release buprenorphine being used? If so, clearly state that as regular buprenorphine needs to be given more often than 72 hours.
- \* Please identify NM at the beginning of the modification request (section 2).
- \* Please provide the pain category for all additional animals.
- \* Regarding the PAD4 inhibitor, how is a total of 5uL being given when it is being administered in increments of 2uL?
- \* Need to add the mustard analogue and the PAD4 inhibitor to the drug table.
- \* Please submit a new document with these changes to the IACUC.

#### 2D. ANNUAL REVIEWS BY FCR

Genetic Control of Skeletal Development, Arthritis, and Limb Regeneration
APPROVED

IRAK4 and Systemic Lupus Erythematosus
APPROVED

Effect of Sideroflexin4 on Ovarian Cancer Growth and Metastasis **APPROVED** 

Induction of Immune Tolerance through Cannabinoid Receptors **APPROVED** 

Limb Regeneration in Amphibians **APPROVED** 

The Nervous System as a Regulator of Immune Homeostasis **APPROVED** 

Rabbit ACL Reconstruction Model with Synthetic ACL Substitutes **APPROVED** 

Determining a Signature of Peripheral Regulatory T Cells **APPROVED** 

Influence of Aging on Immune Response APPROVED

Signal Transduction at Fertilization **APPROVED** 

The Jackson Laboratory Protocol for Purchasing JAX Mice for Transfer to CCM training protocol

**APPROVED** 

Regulation of Channel Function

APPROVED

Characterization of HS-rich Cells in Mammals

**APPROVED** 

Development of Controlled Release Analgesic

**APPROVED** 

Modification of the Mouse Genome

**APPROVED** 

*In vivo* Determination of the Reduction of Metallosis from Arthroplasty Metallic Implant Degradation Products via Dimercaprol-functionalized Glycosaminoglycan Chelation Therapy

**APPROVED** 

#### 2E. DOCUMENTATION OF ADMIN / DMR / VVC REVIEWED PROTOCOLS AND MODIFICATIONS

Holding of Laboratory Animals - Mice

#### **DMR REVIEW: MODIFICATIONS REQUIRED**

- \* Merit review is not required; please change to "no".
- \* Some room locations need to be deleted.

Metabolic Changes in the Trophectoderm Induce the Selective Elimination of Aneuploid Cells within the Inner Cell Mass of Preimplantation Embryos

DMR REVIEW; MODIFICATIONS REQUIRED

\* Room locations are not correct.

Isolation of Adult Rat Cardiac Myocytes

**DMR REVIEW; APPROVED** 

Structural Organization of the Endoplasmic Reticulum

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* A complete overview is required in the lay summary.
- \* It does not appear that animals are being fasted for >24 hours, so that checkbox in the protocol checkbox section should be deleted.
- \* RRIT needs to be corrected.

Polyclonal Anti-'trypanosome protein' Antibodies from Rat

**DMR REVIEW; APPROVED** 

Animal Models for Investigation of Vascular Development and Disease

**DMR REVIEW; APPROVED** 

Erythropoesis and Bone Homeostasis in Sickle Cell Disease and Sickle Cell

**DMR REVIEW; APPROVED** 

In vivo BioID using sarcomere BioID

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Tamoxifen needs to be added to the chemical safety protocol Hz#-MCh0354-101345.
- \* Chemical containment room needs to be added to the modification document.
- \* A revised document incorporating these changes needs to be submitted to the IACUC office.

In vivo Hemi Limb Defect Model for Hemi Limb Regeneration

DMR REVIEW; APPROVED

Understanding Phenotype of Mouse Model for Proximal Colorectal Cancer **ADMINISTRATIVE REVIEW; APPROVED** Mouse Model of Cancer Dissemination and Invasion ADMINISTRATIVE REVIEW; APPROVED The Study of Host-gut Microbiome Interactions **DMR REVIEW; MODIFICATIONS REQUIRED** \* Some answers seem to have been removed during the modification; these need to be re-added. The Role of the Microbiome in Asthma **DMR REVIEW; APPROVED** Dopaminergic Modulation of Developing Cortex ADMINISTRATIVE REVIEW; MODIFICATIONS REQUIRED \* RRIT form must be updated with correct GMO number and re-attached to the protocol in InfoEd. Developing a Mouse Model for Symptomatic Apical Periodontitis **ADMINISTRATIVE REVIEW; APPROVED** Immune Responses to Microbes **ADMINISTRATIVE REVIEW; APPROVED** Genetic Control of Skeletal Development, Arthritis, and Limb Regeneration ADMINISTRATIVE REVIEW; MODIFICATIONS RQUIRED \* IBC registration form for new line to be developed at UCH needs to be completed, submitted, and approved by the IBC. Metabolic Testing in Mouse Models ADMINISTRATIVE REVIEW; APPROVED Assessment of Healing of Cutaneous Wounds ADMINISTRATIVE REVIEW; MODIFICATIONS REQUIRED \* New individuals must have training, OHS enrollment, and medical clearance. \* New individuals must have training records attached. Autologous Whole Tissue Cancer Immunotherapy **ADMINISTRATIVE REVIEW; APPROVED** Testing a Novel 4 in 1 Medical device in a Pediatric Model of Esophageal Surgery **ADMINISTRATIVE REVIEW; APPROVED** Investigating Autologous Blood Patch and its Role in the Treatment of Pediatric Disease **ADMINISTRATIVE REVIEW; APPROVED** Exploring Tissue Engineered Scaffolds as a New Surgical Approach for Patients Suffering from Esophageal Defects or Injuries ADMINISTRATIVE REVIEW; APPROVED New Surgical Approaches to Treat Tracheal Fistulas and Injuries **ADMINISTRATIVE REVIEW; APPROVED** Novel Cell Therapy & Tissue Engineering Approaches for the Treatment of Neonatal Lung Disease **ADMINISTRATIVE REVIEW; APPROVED** 

	Function and Regulation of the BK Channel  ADMINISTRATIVE REVIEW; APPROVED
	Animal Models for the Investigation of Vascular Development and Disease <b>VVC REVIEW</b> ; <b>APPROVED</b>
	Role of Notch in Arthritis  ADMINISTRATIVE REVIEW; APPROVED
	Cellular and Molecular Mechanisms of Renal Fibrosis  ADMINISTRATIVE REVIEW; APPROVED
3	MISCELL ANEOLIS/CONTINUING DISCUSSIONS

- A. PAWS reviews None
- B. Expired training and OHS enrollments All individuals with expired training and/or OHS enrollment will be removed from the protocols effective 12/1/20. Any PI with expired training and/or OHS enrollment will have all protocols withdrawn effective 12/1/20.
- C. Protocol withdrawals no annual review submitted None
- D. Improper ABSL-2/ChemIso cage labeling in CGSB The IACUC administrator gave an overview of the containment room in the CGSB utilized, at present, by 1 TIPS company - were not following labeling requirements for both animal cages in the room and hazardous carcasses stored in the necropsy freezer. The research staff involved admitted to their error and have since corrected the cage labeling. They will adhere to the carcass labeling as well. The Chair will send a letter to the PI reminding them of the requirements and rationale for the requirements.

Meeting adjou	rned at 4:17 p.m.		
APPROVED:		12/17/20	
	Joseph Lorenzo, M.D., UCH IACUC Chair	Date	



# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES December 3, 2020

Present:	
Excused:	
Absent:	
Guest:	

The Chair of the IACUC opened the meeting at 3:00 p.m.

#### 1. REVIEW OF ANIMAL CARE AND USE PROGRAM

The IACUC used the checklist provided by the OLAW website to evaluate the Health Center's animal care and use program. There were no deficiencies noted in the animal care and use program.

The IACUC uses a 7% or less reporting rate to OLAW as indicative of effective training. To date this year, we have had 1 report to OLAW, given that we have 246 active protocols, this is a reporting rate of 0.4%; therefore, the IACUC considered that our training is effective.

The disaster plan was updated to include information regarding the IACUC which was reviewed by the Committee. CCM is in the process of updating the CCM disaster plan with Public Safety and will send the IACUC the final plan.

### 2. REVIEW OF ANIMAL FACILITIES

The IACUC used the standardized review form provided by the OLAW website to review the Health Center's evaluation of the animal facilities. There were no significant deficiencies in the review of animal facilities. There was one room with significant deficiency with humidity and temperature. There were some minor deficiencies that have been corrected or on schedule to be corrected by the targeted completion date. The AV requested inspection personnel to make a concerted effort to check on caging conditions of the animals (e.g., overcrowded cages, dirty cages).

# 3. REVIEW OF ANIMAL STUDY AREAS (INVESTIGATOR LABORATORIES)

The IACUC used the standardized review form provided by the OLAW website to review the Health Center's evaluation of the animal study areas. It was noted that there were no significant deficiencies during this review cycle. There were some minor deficiencies that have been corrected or on schedule to be corrected by the targeted completion date.

# 4. IACUC POLICY RENEWALS

The following IACUC policies were approved by the IACUC either outright or with changes stated at the meeting, 16-0-0:

New protocol submissions
Use of CFA
Animal training and OHS requirements
Animal reviews and expired protocols
Compliance with the *Guide*Rodent tumor production
Animal stabilization
Animal housing and enrichment

# 5. SEMI-ANNUAL REPORT TO THE IO

	ne institutional official (IO) will be written by the IACUC obers for his/her signature and then sent to the IO.	Administrator and will be sent to
Meeting adjour	ned at 3:47 pm.	
APPROVED	Joseph Lorenzo, MD, UCH IACUC Chair	<u>12/17/20</u> Date



# INSTITUTIONAL ANIMAL CARE AND USE COMMITTEE MEETING MINUTES December 17, 2020

Present:	
Excused:	
Absent:	
The Chair of the	IACUC opened the meeting at 3:03 p.m. in the

# 1. REVIEW OF NOVEMBER 19<sup>TH</sup> AND DECEMBER 3<sup>RD</sup> MEETING MINUTES

M/S/P to approve the November 19<sup>th</sup> meeting minutes by a vote of 14-0-0. M/S/P to approve the December 3<sup>rd</sup> meeting minutes by a vote of 14-0-0.

### 2. REVIEW OF ANIMAL CARE APPLICATIONS

#### 2A. DEFERRED / DISAPPROVED APPLICATIONS REVIEWED BY FCR

Validation of T-cell Specific Surface Proteins as Therapeutic Targets MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Merit reviewer stated here is merit.
- \* 3R discussion is required for all pain category D procedures.
- \* More information is required regarding the restraint device being used.
- \* What are "edited" cells?
- \* Drug tables appear to be incomplete.
- \* Animals given human cells must be housed at ABSL-2.
- \* Biosafety protocol is required.
- \* PI needs to confirm that no recombinant materials are being given to the animals.
- \* Question regarding phenotypic pain/distress of transgenic animals must be answered.

#### 2B. NEW APPLICATIONS REVIEWED BY FCR

Role of PRG4 in Inflammatory Bone Loss

### MODIFICATIONS REQUIRED, SUBSEQUENT REVIEW BY DMR

- \* Merit reviewer stated that there is merit.
- \* Title requires corrections.
- \* Lay summary is too technical and needs to be rewritten.
- \* Reviewer states that protocol has merit.
- \* Suggestion given about the maintenance of the homozygous lines to increase stability of the lines.
- \* Drug tables are incomplete.
- \* A statement should be made as to whether or not there is any adverse effects from giving mice TNFa.
- \* Tissue harvest procedure should state how all animals are being euthanized.
- \* RRIT table requires changes.

#### 2C. MODIFICATIONS REVIEWED BY FCR

None

#### 2D. ANNUAL REVIEWS BY FCR

Human ES cell-derived MSCs Treat Experimental Allergic Encephalomyelitis

**APPROVED** 

CD8 T Cell Response to Viral Infection

**APPROVED** 

The Function of hES-MSCs in the Treatment of a DSS-Colitis Model of IBD

**APPROVED** 

Epigenetic Control of Cartilage Development and Homeostasis

**APPROVED** 

Molecular Targets of Corneal Anti-angiogenesis and Retinal Gliosis

**APPROVED** 

Studies of CD45R/B220+ Osteoclast Precursor

**APPROVED** 

Osteogenic Markers in Response to Piezocision

**APPROVED** 

Using Mouse Models to Study Cardiac Regeneration

**APPROVED** 

Characterization and Development of Cure for GSD Mouse Models

**APPROVED** 

Piezoelectric Scaffold/Hydrogel for Rat Trochlear Groove Cartilage Repair

**APPROVED** 

Modeling Skin, Gut, or Other Microbiome Interactions in Mice for Disease

Resolution

**APPROVED** 

Dopamine's Role in Ca2+ Homeostasis

**APPROVED** 

Brain Tumor Therapy in Rats

**APPROVED** 

Faecalibacterium Post-Blotics Glucose Tolerance and Insulin Sensitivity

**APPROVED** 

Signaling Mechanisms that Regulate Meiosis in Mammalian Oocytes

**APPROVED** 

#### 2E. DOCUMENTATION OF ADMIN / DMR / VVC REVIEWED PROTOCOLS AND MODIFICATIONS

Generation of Mouse Embryo Fibroblasts (MEFs) to Support Human Pluripotent Stem Cell Maintenance

**DMR REVIEW; APPROVED** 

Clinical Development of a Novel Tracheal Sealant

### DMR REVIEW; MODIFICATIONS REQUIRED

- \* Lay summary must include an overview of the experimental design.
- \* The 3R discussion must also include a discussion for replacement of painful procedures, not just replacement of animals.
- \* The tracheal injury is a major, not minor, survival surgery.
- \* It must be stated how it will be determined that animals are appropriately anesthetized.
- \* Use generic "ophthalmic ointment" rather than ParaLube to avoid any unintentional non-compliance.
- \* It is unclear if PI is keeping animals in the lab for >24 hours.
- \* Animal monitoring post-surgical is insufficient for procedure being performed.
- \* The method to confirm death after CO<sub>2</sub> narcosis must be stated.

# Mouse Models to Research the Skeleton

#### **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* As a 3-year renewal, the merit review question should be "no".
- \* "Sentinel Monitoring" has been added to the non-surgical procedures list.

Studying Esophageal Regeneration using Tissue Engineered Scaffolds

#### DMR REVIEW: APPROVED / MODIFICATIONS REQUIRED

- \* Potential value of the work has not been stated.
- \* Unclear if rats are used more than once.
- \* Must be stated how an animal number of 5 per group is appropriate.
- \* More information is required for surgical procedure.
- \* Animals should be given a half dose of buprenorphine after surgery.
- \* Use of extended release buprenorphine should be used.
- \* It should be stated when sutures are removed.
- \* Section 9 should state that there is potential for deficits due to the surgery.
- \* It should be stated for how long animals will be singly housed after surgery.

The Function of C1gl1 in Oligodendrocyte Progenitor Cells

#### DMR REVIEW: MODIFICATIONS REQUIRED

- \* Procedural training records required.
- \* Sequence of experimental procedures is unclear.
- \* Number of breeders proposed is not justified.
- \* Sanitation procedure of behavioral equipment is required.
- \* Cuprizone procedure requires a monitoring program for the animals.
- \* Defined procedures must be used.













































- \* Bell jar cannot be used for anesthesia with isoflurane a vaporizer is required.
- \* Room locations, outside of the room location question, should be removed.
- \* Perfusion procedure has inconsistent details.
- \* Chemical safety protocol required.

#### Role of P2X4R in Ischemic Stroke

#### **DMR REVIEW: MODIFICATIONS REQUIRED**

- \* References to searches in 3R discussion should be removed.
- \* Room locations in procedure descriptions need to be deleted.
- \* Adequacy of depth of anesthesia should be lack of response to firm toe pinch.
- \* Reference to estrogen in ovariectomy should be deleted as it is covered in the subcutaneous transplantation procedure.
- \* Is the 2<sup>nd</sup> half of buprenorphine given immediately after the ovariectomy?
- \* Named procedures are to be used.
- \* Unclear when experimental drugs are being given.
- \* Unclear why the Chemlso/ABSL-2 room is selected in room locations; there is no evidence of any biohazards being used in the protocol.
- \* Chemical hazard table requires corrections.
- \* Modified chemical safety protocol is required.
- \* IBC issues required clarifications.

# Effect of Neuroprotective and Neuro-rehabilitatory Agents on Post-stroke Recovery

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Lay summary is incomplete.
- \* Sequence of experimental procedures requires corrections.
- \* Rationale for animal numbers requires more information.
- \* Some details in the descriptions of procedures do not match what is presented in the sequence of experimental procedures.
- \* Frequency of water changes in the Morris Water Maze needs to be discussed with the Attending Veterinarian.
- \* Room locations in procedures need to be removed.
- \* An additional criteria for euthanasia should include failure to access food and water.

#### Mouse Models to Research the Skeleton

#### DMR REVIEW; APPROVED / MODIFICATIONS REQUIRED

- \* Sequences of experimental procedures requires clarifications.
- \* Rationale for animal numbers is incomplete.
- \* Chemical disclaimer must be added to the appropriate procedure sections.
- \* The amount of blood collected must be stated.
- \* Room locations require corrections.
- \* Chemical safety protocol requires modifications.

# Differentiation of Mesenchymal Progenitor Cells

# **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* Sequence of experimental procedures requires clarifications.
- \* Animal numbers require clarifications.
- \* DEXA imaging is listed as a procedure, but it is not in the sequence of experimental procedures nor is the room in which this instrument is located in the room location list.
- \* Agents used in the administration of experimental compounds requires clarifications.
- \* Standard hazard disclaimers must be placed into all procedures using hazardous agents.
- \* More information is required in the use of the Su16f compound.
- \* Unclear if tamoxifen is given before, during, or after parabiosis.
- \* More information regarding the scaffolds being used is required.
- \* Unclear in the non-surgical perfusion procedure about what is being perfused.

- \* Room location list appears to be incomplete.
- \* Chemical safety protocol requires update.
- \* IBC registration is required.

# Telomere-to-Telomere Assembly of Complete Zebrafish Genomes DMR REVIEW; / MODIFICATIONS REQUIRED

- \* Protocol is stated to be a tissue harvest with CCM personnel performing the fish euthanasia but there are multiple people on this stating that they are going to perform experiments with no training in fish euthanasia. If they are not going to perform euthanasia, they should be removed or the description of "performing experiments" should be removed.
- \* The lay summary reads like a scientific summary and the scientific summary reads like a lay summary; they need to be switched.
- \* Sequence of experimental procedures has too much extraneous detail that is not required.
- \* Description in the tissue harvest section has too much information that is not required; it should simply state how the animals are euthanized and for what purpose.
- \* Room location list requires explanation; if animals are to be euthanized in CCM upon receipt, why are PI laboratories listed?
- \* Minimizing pain and distress section is confusing and needs to be corrected stating that this is a tissue harvest protocol only.

# IRAK4 and Systemic Lupus Erythematosus **DMR REVIEW; MODIFICATIONS REQUIRED**

- \* The 3R discussion for fear conditioning is incomplete. Replacement was addressed, but not reduction nor refinement.
- \* Water tank procedure should clearly state that animals will not be left unattended and will be immediately removed should they not swim.

Development of Controlled Release Analgesics

**DMR REVIEW; APPROVED** 

Murine Models of Skeletal Repair **DMR REVIEW; APPROVED** 

Basic Fibroblast Growth Factor Expression in Bone Cells

**VVC REVIEW; APPROVED** 

Mechanisms of Cerebral Cortical Development in Mice

**VVC REVIEW; APPROVED** 

Enhancing Bone Healing in Aged Mice

DMR REVIEW; APPROVED

Studies of CD45R/B220+ Osteoclast Precursor

**DMR REVIEW; APPROVED** 

Neural Basis of Active Avoidance Behavior

**VVC REVIEW; APPROVED** 

The Effects of Methyl Donor Deficiency on Intestinal Tumorigenesis

**ADMINISTRATIVE REVIEW; APPROVED** 

Development of Controlled Release Analgesics VVC REVIEW; MODIFICATIONS REQUIRED

\* Dosage of lidocaine should not exceed 8mg/kg. Do you have any references for this dosage request?

Radiation Therapy, Imaging, and Adjunct Immunoprophylaxis **DMR REVIEW; MODIFICATIONS REQUIRED** \* Needs updated chemical safety protocol. Regulation of Bone Remodeling: Role of Signaling Proteins **ADMINISTRATIVE REVIEW; APPROVED** MicroRNA29 Regulation in Bone Cells **ADMINISTRATIVE REVIEW; APPROVED** miRNA Regulation in Osteoblasts **ADMINISTRATIVE REVIEW; APPROVED** miR-433 in Skeletal Cells **ADMINISTRATIVE REVIEW; APPROVED** Musculoskeletal Consequences of Acidosis **DMR REVIEW: APPROVED** Osteoblast Lineage Plasticity in Zebrafish **DMR REVIEW; APPROVED** Murine Models of Skeletal Repair Primary Reviewers: POHL **ADMINISTRATIVE REVIEW; APPROVED** CD8 T cell Response to Viral Infection **ADMINISTRATIVE REVIEW; APPROVED** Understanding Phenotype of Mouse Model for Proximal Colorectal Cancer **DMR REVIEW; APPROVED** Function and Regulation of the BK Channel **ADMINISTRATIVE REVIEW; APPROVED** Molecular Regulation of Lineage Specification of the Mouse Cerebellum ADMINISTRATIVE REVIEW; APPROVED The Study of Host-Gut Microbiome Interactions DMR REVIEW; MODIFICATIONS REQUIRED \* Sequence of experimental procedures needs to add the new procedure. \* Room location is required for location of behavioral testing. **Development of Controlled Release Analgesics DMR REVIEW; APPROVED** Modulating Co-stimulation to Break T-cell Tolerance and Elicit Tumor Immunity **DMR REVIEW; APPROVED** COX-2 Regulation of Bone Responses to PTH **ADMINISTRATIVE REVIEW; APPROVED** Mechanisms of Cerebral Cortical Development in Mice **ADMINISTRATIVE REVIEW; APPROVED** Role of Notch in Arthritis ADMINISTRATIVE REVIEW; APPROVED

	Regulation of Channel Function ADMINISTRATIVE REVIEW; APPROVED
	Animal Models for the Investigation of Vascular Development and Disease <b>ADMINISTRATIVE REVIEW</b> ; <b>APPROVED</b>
	Characterization and Development of Cure for Glycogen Storage Disease Mouse Models DMR REVIEW; APPROVED
	Characterization of <i>Treponema pallidum</i> Rare Outer Membrane Proteins <b>ADMINISTRATIVE REVIEW</b> ; <b>APPROVED</b>
	Phagosomal Signals Shape Inflammatory Responses to Borrelia burgdorferi ADMINISTRATIVE REVIEW; APPROVED
	Modeling Skin, Gut, or Other Microbiome Interactions in Mice for Disease Resolution ADMINISTRATIVE REVIEW; APPROVED
	Development of Controlled Release Analgesics ADMINISTRATIVE REVIEW; APPROVED
3. MISCE	LLANEOUS/CONTINUING DISCUSSIONS
A.	PAWS reviews – None
B.	Expired training and OHS enrollments – None
C.	Protocol withdrawals – no annual review submitted – None
D.	Update, protocol The Attending Veterinarian gave an update from last month's discussion regarding rabbit deaths after surgery. The AV and researchers had a meeting with an Envigor research team about the deaths. It was learned that the use of a heat blanket for the 3- hour timeframe as described in the surgical procedure results in a proliferation of <i>E</i> . coli which and this was not expected, as it is unique to rabbits. In addition, it was learned that Baytril given orally, rather than by injection, provides a more effective control of <i>E</i> . coli in rabbits. The PI will be required to modify the protocol to change these procedures.
Meeting adjour	ned at 3:26 p.m.
APPROVED:	Joseph Lorenzo, M.D., UCH IACUC Chair  Date