

Billiar Lab News

University of Pittsburgh

Fall 2014

Volume 23

Lab Updates

Initiative to Save Money

As everyone is aware; there has been a major cutback on funding-both in sources and amounts. Deb would like to encourage everyone to be more conscious of their spending in the lab.

In an effort to assist all of the labs with cost cutting, Deb was accepting suggestions with the best ideas being awarded gift cards. The two winners are Derek Barclay for getting quotes and price comparisons to lower the financial impact of his project and Carol Meiers for investigating other vendors for MUH lab supply prices in comparison to Fisher and choosing the vendor with better bargains and incentives whenever possible.

If you have any additional ideas, don't hesitate to send them to Deb and begin to implement them whenever possible!

Loss of Lunchroom

As you are probably aware, the MUH lunchroom has been re-purposed into a freezer room. The pharmacy construction has caused us to have to permanently relocate these freezers in order to make room for new office space.

The food refrigerator, water cooler, microwave, and coffee maker have remained in place. These may also be relocated in the future.

Currently your options for seating areas are:

- Table in hallway under the white board
- Table outside NW636 next to the ice machine
- The cafeteria on the 4th floor

Deb is in the process of exploring a more dedicated seating area.

Billiar Lab Dedicated ELISA Technician

As Elisa Kits are heavily used as an endpoint assay, and as

Important Dates

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Simmons Research

Tu 8:00am & Th 8:30am F1275 PUH

- Oct 7 Jason Luciano
- Oct 9 Meihong Deng
- Oct 30 Rami Namas

Billiar Lab Meeting

Wed 12:00pm F1275 PUH

- Oct 8 Guoliang Wang
- Oct 22 ACS Practice

DAMPs/Danger Signals

Th 10:00am F-1275 PUH

- December 18

Trauma/Sepsis Model

Tu 9:30am F1275 PUH

- November 18
- December 16

Immunology Seminar Series

Scaife Hall, Aud 5

Thurs 12:00-1:00pm

- October 16
- October 23
- October 30
- November 6
- November 13

For a full list of events, please go to the General and Vascular Surgery Labs website's Events page.

New Faces



Please welcome the following people into our labs:

Billiar Lab

Jesse Guardado – Resident

Jackie Fera – Breeding Asst

Andres Gutierrez –
Technician

Xiao Li – Visiting Scholar

Cao Yu – Visiting Scholar

Sebastian Vogel – Visiting
Scholar

Tunliang Li – Xiangya
Student

Tsung Lab

Hanza Obaid – Visiting
Scholar

Ronghua Wang – Visiting
Scholar

Tzeng Lab

Ankur Aggarwal – Resident

Elizabeth Genovese –
Resident

Nathan Liang – Resident

Chen Lab

Qin Zhou – Visiting Scholar

Jiehua Li – Xiangya Student

Other Labs

Paul Waltz – Resident
(Zuckerbraun Lab)

Anthony Lewis – Resident
(Rosengart Lab)

Fangfang Yuan – Visiting
Scholar (Fan Lab)

Sean Pennetti – Technician
(McEnaney Lab)

such are huge lab expenses, in an attempt to contain costs we have decided to have a dedicated lab technician assigned to perform ELISA assays. Hong Liao will take on this responsibility effectively immediately and will be tasked with performing ELISA's for the Billiar lab personnel as well as ordering and maintaining the inventory. Hong possesses excellent technical skills and you will undoubtedly receive quality results.

The new procedure will be:

- Place your ELISA request on the whiteboard located in NW607, outside of Eileen Bauer's office. Please enter Who/ What Cytokine/ Date/
 - Please complete the ELISA Request Form that will require more details regarding your samples and submit to Hong. These forms are available on our website under the Info Handbook tab and the Forms section. (<http://www.gensurgerylabs.pitt.edu/policiesforms/billiar-lab-experimental-request-forms>)

- According to the cytokines to be assayed, the number of samples and schedule, etc. Hong will schedule and perform the Elisa assay and provide you with your results in a timely fashion.

Hemorrhagic Shock Freezer Storage and Inventory

Effective immediately, per Dr. Billiar, we are to house all organs from Shock and Shock + Trauma experiments in a central location. That central location is -80 freezer #2. Each resident, fellow, postdoc, and student will have 2 racks designated to him/her, more will be assigned as needed. The organs you have archived are to be arranged within those racks along with any new projects that are coming down the pike. One rack is for snap frozen organs and one rack is for immunohistochemistry organs. We are also instructed to take every organ for storage (unless it is to be used fresh for flow) including: blood, liver, lung, gut (ileum), kidney, spleen.

Several sliding drawer freezer racks were purchased to help with this conversion. In order to assist in the organization process, please label your racks/drawers with your name.

We are in the process of purchasing a freezer inventory system that will permit an easy way to track sample locations and usage. Once the system is in place, a training session will be held.

If you have any questions about this process please do not hesitate to discuss them with Deb.

Isflurane Over-usage
Due to overuse of isoflurane, a new procedure has been

Staff Highlight



Trudy Clark

I am mom to 4 beautiful children. My oldest son David is a Computer Engineer (Pitt graduate). My son Holden is currently attending Pitt for teaching (the CASE program). My daughter Trudy is a junior in high school and plans on becoming a Nurse Anesthetist. My youngest daughter Lindsey is 8, she loves dancing and computers. My children are a blessing in my life, spending time with them is one of my greatest joys! I also enjoy spending time with my extended family, 4 siblings, 15 nieces & nephews, and 18 great nieces & nephews.

I am a Research Accountant for the department of Surgery at Montefiore Hospital, as part of the pre & post award Research Admin team. My duties include working on accounting statements for the Investigator's, financial tracking of salaried commitments, monthly lab reports, ordering lab supplies, and special projects, all covering several groups including PITT, UPMC and the VA. I have worked for the University of Pittsburgh for 3 1/2 years (Surgery for 1 year).



established for retrieving bottles for use. Lab stocks will still be kept in both NW636 and NW615. Should a stock be running low, all new bottles are kept in NW636. In order to obtain a new bottle you will need to go down during normal working hours (7am-5pm) and let either Aaron, Alicia, Lauryn or John know. The isoflurane is now locked up, so if you are planning on working either late at night or early in the morning, make sure to plan the day before to log a bottle out. **You will not be able to access new bottles after NW636 workers leave for the day.**

Before taking a bottle you must sign the logout sheet and mark which bottle you are taking and to what room. If you have any questions about the new policy see Aaron in NW 636.

Construction Updates in EBST Animal Facility

The third and final phase of the EBST animal facility construction is underway. When the second phase was completed, many of the department's investigators' mice were relocated. If you

Staff Highlight



Aaron Walters

I am a graduate from Westminster College with a BS degree in neuroscience. While at Westminster I also completed a minor in philosophy. Even though I was a neuroscience major, it was my undergraduate microbiology class that inspired me to continue work in a more biologically related field. This led me to the University of Pittsburgh where I was offered a position in the Billiar Lab as an animal surgeon. I have been working with the lab for 2 years now and have learned many things along the way.

My most recent project subjected C57/BL6 mice to our hemorrhagic shock model along with a pretreatment of a protease inhibitor called saquinavir. The data collected from this study will be included in a future grant submission. I am also working on modifying our current shock protocol by testing how a quicker blood withdraw may influence liver function. This modification may be more relatable to how humans lose blood when injured and could be useful for future research.

My girlfriend of 6 years and I recently got engaged on a cruise

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do not know if your animals have moved, please contact Matt Mihalik, the EBST site supervisor.

Messages from IACUC and DLAR And Additional Feature in ARO – Display of Training Records

Since January 2012, all IACUC protocols have been

submitted through [Animal Research Online \(ARO\)](#). The ARO development team continues to make improvements to the system, and to add features suggested by members of the University community.

A common issue that delays the renewal of protocols is a lapse in IACUC-required

in June. She currently lives in Baltimore because of a teaching opportunity that arose over the summer. I spend some of my weekends on the road to go see her. I also travel north to Franklin, Pa to spend time with my parents who are settling into a new house. They can use all the help they can get because of the amount of remodeling they are undertaking.

I enjoy jogging and bike riding. I also enjoy a good read or a good movie. I am attempting to learn to cook now that I live alone, but I find that it can be exhausting when something frozen tastes better than what I make.



training by a member of the study team. Investigators have indicated that they would like to be apprised about lapses in training related to their protocol *before* a renewal is submitted and processed by the IACUC office.

To address this concern, the newest improvement to ARO was introduced a couple of weeks back: a display of training records relevant to the protocol.

Principal investigators and study coordinators can access the training status for members of the study team

from the "Training Records" tab on the home page of each approved protocol in ARO.

To maintain confidentiality, individuals with roles other than principal investigator or study coordinator will not be able to access the training records.

The IACUC hopes that this feature will be helpful to investigators in assuring that members of their laboratory team remain up-to-date on their IACUC-required training requirements.

The IACUC welcomes suggestions for additional improvements in ARO. [Email your suggestions to the IACUC Office.](#)

DLAR Facility Pinworm Contamination Update (Aug 20, 2014)

The pinworm remediation efforts implemented in response to the contamination of DLAR animal facilities secondary to mice and rats sourced from Taconic IBU 506 are continuing according to the plans previously communicated. Animal

treatments are nearing completion in most pinworm positive areas. Enhanced surveillance and monitoring procedures will continue through at least May 2015 and have not identified any additional pinworm positive areas to date. Surveillance and monitoring plans are facility specific and are influenced by whether or not the facility received animals from the Taconic IBU 506 barrier between March 15 and May 30, 2014 and whether or not the facility has any confirmed pinworm positive rooms. Additional facility specific information will continue to be communicated locally by facility veterinarians and supervisors. The third quarter rodent sentinel testing samples have been collected, processed, and submitted for

evaluation. Rodent sentinel results for the routine quarterly health assessment will be communicated in a future announcement. We appreciate your support and assistance with the pinworm remediation efforts.

Good Luck



We'd like to extend our best wishes and good luck in future endeavors to those individuals who have left the labs.

Justin Markel
Miranda Culley
Amy Callear
Xingying He
Mandy Chen
Xiqing Liu
Haibo Yu
Huifeng Zhang
Nabil Azhar
Khalid Almahmoud

EBST Facility Pinworm Status

As of September 11 the EBST animal facility (in particular room 908) has received negative results from the testing following the last round of treatment. The room and the adjoining corridors have been decontaminated. The personal protective equipment (PPE) and cage handling practices have been returned to normal. There will be another round of testing performed in 3 weeks. If you have any questions, please contact the EBST facility veterinarian, Amanda Fisher (fishera@pitt.edu) or the EBST facility supervisor, Matt Mihalik (mihalikm@pitt.edu). DLAR thanks you for your cooperation during these times.

Colony Status: As of September 12, 2014

Established Colonies: Knockouts, Transgenics, and Double Knockouts

ATF3 KO	Myd88 KO	TLR4 KO/RAGE KO
Caspase1KO	Myd88 WT	TLR4 KO/TLR2 KO
Caspase11 KO	RAGE KO	TLR9 ^{CpG1/CpG1}
iNos KO	TLR2 KO	Trif ^{LPS-2} (Jax #005037)
Nalp 3 KO	TLR4 KO/TL9 ^{CpG1/CpG1}	

Established Colonies: Cell Specific Knockouts and Controls

Adipose TLR4KO	HMGB1 flox	ROSA Pf4cre HMGB1 KO
DC TLR4 KO	HMGB1 flox/ROSA ^{mT/mG}	Reporter
DC Myd88 KO (sm. quantities)	iHMGB1 KO	TACE flox (small quantities)
HC HMGB1 KO	Lyz cre Myd88 KO	TLR4 flox
HC Myd88 KO	Lyz Cre TLR4 KO	TLR4 KO (global)
HC TACE KO	Myd88 flox	Pf4cre HMGB1 KO
HC TLR4 KO	ROSA ^{mT/mG}	Pf4cre TLR4 KO
Het TLR4KO/TLR4flox		VEC cre TLR4 (small quantities)

Colonies in Development

Cathepsin L KO (breeding +/-)	TLR-9 flox (transferring from Schlomchik)	TLR4-/-ClaraErt cre (in quarantine, from Hackam)
Lyz cre HMGB1 KO	TLR4-/-cag (in quarantine, from Hackam)	TLR4-/-cag/ClaraErt cre (in quarantine, Hackam)
TLR4 KO/Caspase 11 KO		
Rorc GFP		

Strains Available from Collaborators

IRF-2 KO (David Geller)	TSP-2 KO (A. Chen)	GDF-15 KO (Yoram Vodovotz)
eNos GCHtg (A. Chen)	CD36 KO (A. Chen)	iHMGB1 KO (Qingde Wang)
TSP-1 KO (A. Chen)	hph-1 (A. Chen)	

Cryopreserved Strains *at Jackons Labs unless otherwise noted

eNos tg	EGR1 KO	TLR-4 KO (Taconic, Hackam)
CD36 KO	IFNabR KO	HMGB1 +/-
TLR2 KO	TLR-9 (eggs, in house)	Ja281-/- (in process)
AIM2 KO	TLR-4 flox (Hackam)	

Stud Colonies

HMGB1 flox x Albumin Cre	Myd88 flox x Lyz cre	TLR4 KO x Pf4 cre
HMGB1 flox x ER cre	TACE flox x Albumin cre	TLR4 KO x VEC cre
HMGB1 flox x Lyz cre	TLR4 KO x Albumin Cre	
HMGB1 flox x Pf4 cre	TLR4 KO x CD11c	
Myd88 flox x Albumin Cre	TLR4 KO x Fab cre	
Myd88 flox x CD11c	TLR4 KO x Lyz Cre	

If you have any questions regarding the contents of this newsletter, contact [Deb Williams](#)

If you know of anything exciting or newsworthy going on in the lab that you want to share with others email [Alicia Frank](#) with the information

For more information, please visit the [General and Vascular Surgery Labs website](#)