

# Billiar Lab News

University of Pittsburgh

November & December 2014

Volume 24

## Lab Updates

### *Changes to the NIH Biosketch Format*

On November 28<sup>th</sup>, the National Institute of Health (NIH) sent out a notice regarding changes to the biosketch content format.

This new format will be required for submissions starting on January 25, 2015.

Please make your changes accordingly. If you visit the lab's website

([www.gensurgerylabs.pitt.edu](http://www.gensurgerylabs.pitt.edu)), the announcement can be

found in the news section and the new format can be found under forms. If you have any questions, please contact Kathy.

### *PRISM TRKS Holiday Deadlines*

Due to the upcoming holidays and winter breaks, there are some changes to timecard submission deadlines.

- Dec 14-20: Due by noon on Dec 18
- Dec 21-27: Due by noon on Dec 29

- Dec 28-Jan 3: Due by noon Jan 5.

Please keep in mind that these deadlines are when the timecard must be approved by your supervisor. Please submit your time records prior to the deadline to give them time to review and approve. Note that timecards can be submitted and approved prior to the deadlines if you plan on being away from a computer.

### *Billiar Lab Dedicated qPCR Technician*

As real-time PCR (qPCR) is used as an endpoint assay in many studies, we have decided to have a dedicated lab technician assigned to perform this assay if desired. Alicia Frank has taken on this responsibility and will be tasked with performing qPCR for the Billiar lab personnel as well as ordering and maintaining the inventory. Alicia possesses excellent technical skills and you will

## Important Dates

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### *Simmons Research*

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

- TBD

### *Billiar Lab Meeting*

*Wed 12:00pm F1275 PUH*

- TBD

### *DAMPs/Danger Signals*

*Th 10:00am F-1275 PUH*

- TBD

### *Trauma/Sepsis Model*

*Tu 9:30am F1275 PUH*

- TBD

### *Immunology Seminar Series*

*Scaife Hall, Aud 5*

*Thurs 12:00-1:00pm*

- TBD

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

*The website's event page will be updated with all January meetings before Winter Break, so please check there so you don't miss any meetings when we return from break.*

undoubtedly receive quality results.

As of October 13, 2014 the new procedure will be:

- Place your qPCR request on the whiteboard located on the inside door of NW617. Please enter Who/ What/ Date/ #samples/
- Please complete the qPCR Form that will require more details regarding your samples and submit to Alicia. These forms are available on the website at: <http://www.gensurge.rylabs.pitt.edu/policiesfor ms/billiar-lab-experimental-request-forms>. The form is located at the bottom of the page under the Billiar Lab Request Forms heading.
- According to the number of samples and schedule, etc. Alicia will schedule and perform the qPCR and provide you with your results in a timely fashion.

### *Hemorrhagic Shock Freezer Inventory*

A contract has been made with [www.elabinventory.com](http://www.elabinventory.com) to be our online/cloud based freezer inventory system and

is ready to be used. This system is very user friendly and has a video tutorial that you can watch to familiarize yourself with its use and applications.

If you have samples that are currently stored in the shock -80 freezer or will be performing shock in the near future, please contact Alicia Frank, Lauryn Kohut, or Aaron Walter for the general lab username and password.

If you have any questions, please do not hesitate to ask for assistance.

### *Final Construction Update for EBST Animal Facility*

The final construction phase in the animal facility was completed at the end of October. All movement of the animals to different rooms should now be completed. The final locations of our PI's animals are:

- Billiar: 935, 934, 930, 921, 1501B
- Philip (Mike) Bauer: 925, 911, 940
- Eileen Bauer: 925
- Chen: 909
- Fan: 908

## New Faces



Please welcome the following people into our labs:

- Jing Xu – Visiting Scholar (Billiar)
- Qiwei Chen – Xiangya Student (Billiar)
- Liang Wu – Visiting Scholar (Fan)
- Yuanzhou Chen – Visiting Scholar (Chen)
- Venkata Sashi Gollapudi – All Temps (E. Bauer)
- Haijun Qin – Visiting Scholar (Billiar/Vodovotz)
- Hui Xu – Visiting Scholar (Billiar)
- Muqing Yang – Visiting Scholar (Geller)
- Yazdani Hamza Obaid – Visiting Scholar (Tsung)

## Good Luck



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

- Yanyun Hu
- Weihua Chu
- Liyong Zhang
- Guoliang Wang
- Sophie Darwiche

## Staff Highlight



### *Andres (Dre) Gutierrez*

Currently I reside by Friendship Park in Bloomfield with my girlfriend of three years, Lizzee Solomon (CMU class of 2011). I spend my hours outside of the lab catching up on chores at home, reading, following my favorite TV series, hanging out with friends, exercise (when I feel motivated... which lately has been rare), and going to various activities in and around Pittsburgh. Many of my friends, including my girlfriend, are involved in the electronic music scene and/or the "fine" art scene of Pittsburgh, so rarely is there a dull weekend to be had. If you ever want to know of something interesting and fun going on, don't hesitate to ask me!



In 2010, I earned my BA in Biology from Vassar College, and have been working at the University of Pittsburgh for over three years now. I have specifically been working in the Department of Surgery Labs as a Research Specialist under Matthew Neal's direction since July 7<sup>th</sup>, 2014, and became a full-time staff member this past October.

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- Geller: 935, 925, 905, 1501A, 1501B
- Rosengart: 935
- Sachdev: 911, 1501B
- Scott: 930, 921
- Tsung: 935, 930, 925, 1501B
- Tzeng: 911, 940, 1501A
- Vodovotz: 925
- Wang: 908
- Zuckerbraun: 925

With the completion of the construction there is now a Heliobacter-free and MNV-free corridor that has an updated gowning SOP. Everyone should have attended a re-training on either Dec 3 or Dec 4 to cover the new procedure. If you were unable to attend or you have any questions, please address them to Matt Mihalik, the EBST site supervisor.

### *Messages from IACUC and DLAR*

*Animal Order Deadline and Delivery Changes Due to University Closures*  
To help in research planning, the DLAR is announcing changes in animal order deadlines and deliveries resulting from University closures. The following information is also posted in Current News and on the

## Faculty Highlight



### *Xianghong Zhang*

In 2001, I came to University of Pittsburgh from China as an exchange student to pursue my Ph.D degree in Cell Biology under the supervision of Dr. Youhua Liu who is a professor in the Department of Pathology. I started my postdoc training in Dr. Rosengart's lab in Jan. 2005 and became a research instructor in 2010. This coming year will be my tenth year working for the Department of Surgery. All my work focuses on exploring the function of Calcium Calmodulin-dependent Protein Kinase (CAMKs) in sepsis. My current project is to investigate the mechanism by which CAMKI and CAMKIV regulate mitophagy during sepsis, especially in acute kidney injury.

I live in Franklin Park with my husband and two lovely children. Both of my kids were born after I started my job in my current lab. My daughter, Jenny, is 9 years old and is a 4th grader in Franklin Elementary. My son, Isaac, is going to start kindergarten in the coming fall. I am a pretty busy working mom and have lots of fun with them. I usually spend lots of time on the road for my kids' activities. I love cooking, and am also member of the chorus at Pittsburgh Chinese School.





animal ordering website at [www.dlar.pitt.edu](http://www.dlar.pitt.edu).

Due to the University's Winter Recess closure from Wednesday, December 24, 2014 through Friday, January 2, 2015, no animals will be delivered and no orders will be processed.

The ordering deadline will be 5:00 PM Tuesday, December 16 for delivery Monday, December 22, Tuesday, December 23 AND for delivery the week of January 5.

To reiterate, if you need an animal delivered December 22 or 23, OR January 5 through January 9, the order must be placed by 5:00 PM Tuesday, December 16 and the delivery date must be noted on the order.

Vendor delivery schedules for the week of December 22 will be as follows:

ATTENTION: Charles Rivers, Harlan and Taconic users:

Charles Rivers, Harlan and Taconic will deliver on Tuesday, December 23 and will not deliver again until

*...Continued from Page 3 (Andres)*

Currently, my projects have focused on imaging thrombus formation after ferric chloride application on the Superior Mesenteric Artery of WT, HMGB1 PF4 cre, HMGB1 Flox, TLR4 KO and TLR4-Flox mice, and the role HMGB1 plays in the aggregation of platelets. We have been using the Laser Doppler Probe (courtesy of the Vascular Medicine Institute) to acquire infrared still-images of clot formation in the SMA. Additionally, my other projects have been under the polytrauma protocol, and dealt with macrophage phagocytosis of E.coli in the presence of HMGB1, and colony formation thereafter.

We are planning on using intravital microscopy in January 2015 to observe live feeds of thrombus formation, and eventually to have images of fluorescently tagged platelets (+/- HMGB1) forming a clot in real-time. Overall I am very excited to be working in this lab, and am grateful for the opportunity to learn different research techniques and technology. I am duly grateful for all the patience, guidance, and wisdom my lab mates share with me.

Tuesday, January 6. To receive a delivery on December 23, please make sure your order is placed by 5:00 PM Tuesday, December 16. To receive an order on January 6, please make sure your order is placed by 5:00 PM on Tuesday, December 16. Requested delivery date must be noted on the order.

ATTENTION: Jackson Lab users:

Jackson Lab will deliver on Monday, December 22 and will not deliver again until Wednesday, January 7. To receive a delivery on December 22, please make sure your order is placed by 5:00 PM Tuesday, December 16. To receive an order on January 7, please make sure your order is placed by 5:00 PM on Tuesday, December 16. Requested delivery date must be noted on the order.

**\*\*Please adhere to the departmental order deadlines for animal orders, these deadlines were implemented to be compliant with DLAR's ordering schedule. \*\***

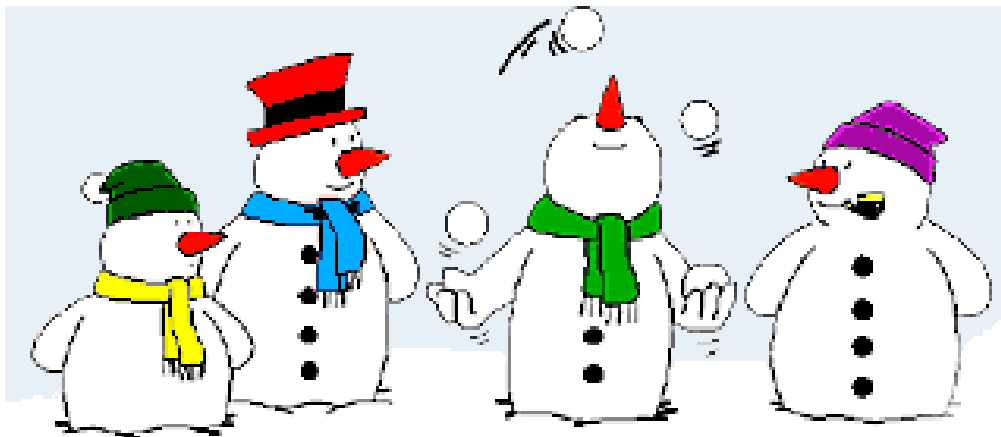
Normal Ordering and Delivery

The normal DLAR ordering and delivery schedule will resume on Tuesday, January 6, 2015. Orders placed by 5:00 PM Tuesday, January 6 will be scheduled for delivery the following week, January 12 - 16, 2015.

Animal Facility Access Request Changes

The SBST and BST animal facility access request process has changed. No longer is the DLAR Security email account being used. All access requests will be managed the respective facility supervisor. A new Security Access Request Form for obtaining access into these two facilities has been created due a change in the information UPMC requires for their security database. Submission of the new form, completed in its entirety, is

intended to minimize programming errors and expedite obtaining facility access. The completed request form is to be sent to the appropriate facility supervisor via their email account or can be faxed to the Administration Office. The new Security Request Form and the Animal Facility Access process can be found on the DLAR website: [www.dlar.pitt.edu](http://www.dlar.pitt.edu).



## Colony Status: As of December 5, 2014

### Established Colonies: Knockouts, Transgenics, and Double Knockouts

ATF3 KO	Myd88 KO	TLR4 KO/TL9 <sup>CpG1/CpG1</sup>
Caspase1KO	Myd88 WT	TLR4 KO/RAGE KO
Caspase11 KO	RAGE KO	TLR4 KO/TLR2 KO
iNos KO	Rorc GFP	TLR9 <sup>CpG1/CpG1</sup>
Nalp 3 KO	TLR2 KO	Trif <sup>LPS-2</sup> (Jax #005037)

### Established Colonies: Cell Specific Knockouts and Controls

Adipose TLR4KO	HMGB1 flox	ROSA Pf4cre HMGB1 KO
DC TLR4 KO	HMGB1 flox/ROSA <sup>mT/mG</sup>	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	Lyz cre HMGB1 KO	Pf4cre HMGB1 KO
HC TLR4 KO	Myd88 flox	Pf4cre TLR4 KO
Het TLR4KO/TLR4flox	ROSA <sup>mT/mG</sup>	VEC cre TLR4 (small quantities)

### Colonies in Development

Cathespin L KO (started breeding KOs)	TLR4 KO/Caspase 11 KO	TLR4 <sup>-/-</sup> cag
	TLR-9 flox	TLR4 <sup>-/-</sup> -ClaraErt cre

### 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 Jacksons 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)	Jα281-/-
AIM2 KO	TLR-4 flox (Hackam)	

### Stud Colonies

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

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](#)