



PennState
College of Medicine

POSTDOCTORAL SCHOLARS & FELLOWS CONNECT

Newsletter Issue 09 | March 2018

MACROPHAGES WITHIN THE ENTERIC NERVOUS SYSTEM

This cross section of the myenteric plexus of the gut shows how muscularis macrophages (green) wrap around the neural network (red).

This specialized subset of macrophage has a critical role in regulating homeostasis of the enteric nervous system.

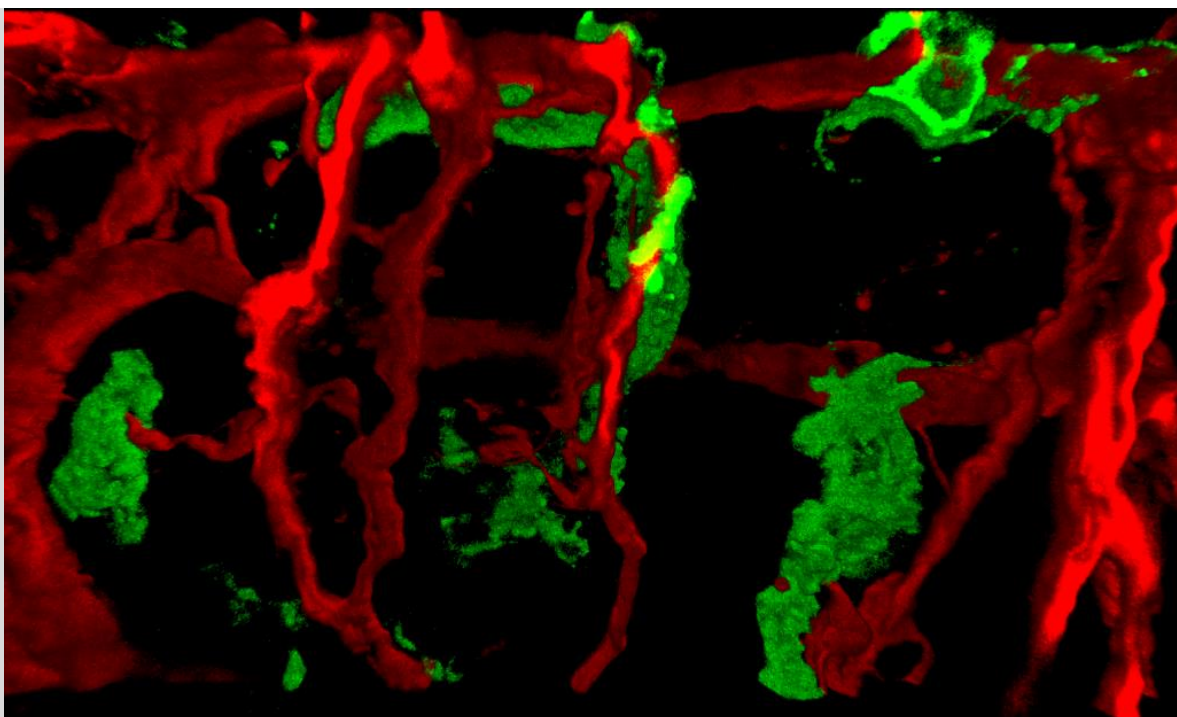
Image Courtesy:

Dr. Changsik Shin

Postdoctoral Scholar

Dr. Milena Bogunovic Lab

Department of Microbiology and Immunology



THIS MONTH'S FOCUS: POSTDOCTORAL INITIATIVES

The monthly newsletter for and by postdoctoral scholars and fellows at the Penn State College of Medicine.

Learn about the research being done by postdocs at the College of Medicine, workshops and seminars sponsored by the Office of Postdoctoral Affairs, upcoming Postdoctoral Society events, and fun activities in the community.

Feel free to share any announcements or suggestions of content for future issues of the Connect Newsletter to Becky Moyer, rmoyer7@pennstatehealth.psu.edu.

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CAREER DEVELOPMENT EVENTS

MARCH

Educator Development: Engaging Reluctant Learners

March 1 @ 12:00 pm - 1:00 pm
Room HG305 (Anteroom) – Milton S. Hershey Medical Center

What can make a learner reluctant in a particular situation? During this interactive session, participants will define the term “reluctant learner” and generate ideas for how to engage all learners in a variety of settings. Research-based practices will be reviewed in discussion. CME credit will be provided.

The Give and Take of Feedback

March 8 @ 5:00 pm - 6:00 pm
Room C1832 – Penn State College of Medicine

By providing effective feedback, teachers are able to help learners create plans for improvement. This session will discuss valuable tools and strategies on best practices in giving and receiving feedback. Participants will also discuss a conceptual framework for giving feedback and provide strategies on best practices. CME credit will be provided. Online registration is required.

Interviewing for Success

Mar. 12, 5:00 pm
Academic Support Building (ASB) Room 2200F

Preparation and making a good first impression are essential for a strong and successful interview. Learn what to do before, during, and after the interview process.

2017/18 Data & Dine Research Symposium

March 13th, 2018
University Conference Center

Guest Speaker: Dr. Sindura Ganapathi

Employer Spotlight: Janssen Pharmaceutical Companies (J&J)

Mar. 16, 12:00 pm
Room C5620 – Penn State College of Medicine

Information Session, noon-1 p.m. Career Development Seminar and Q&A Session, 1-2 p.m. Learn about Janssen Pharmaceutical Companies of Johnson & Johnson and potential internship, co-op and postdoctoral opportunities. Hear from scientists who will share their experiences on transitioning to the biopharmaceutical industry.

APRIL

EPPIC Workshop: Mastering Academic Writing

Apr. 9, 3:30 pm
Room C4702 – Penn State College of Medicine

“Mastering Academic Writing” will be presented by the English for Professional Purposes Intercultural Center (EPPIC) of Penn State University Park. Multilingual graduate students and postdocs will learn strategies to enhance English writing skills with a focus on academic writing. Registration is required by emailing Jessica Kirkwood at jlk296@psu.edu.

Hinkle Lecture Series: Dr. Jane Roskams, University of British Columbia

Apr. 11, 12:00 pm
Junker Auditorium – Penn State College of Medicine

SciPhD Workshop: Preparing Scientists for Professional Careers

Apr. 13, 12:00 pm
University Conference Center

In this event co-hosted by the Office of Postdoctoral Affairs and Career Services in the Office of Graduate Education, learn to build and market your personal brand by exploring your scientific, business and social identities in a highly interactive half-day workshop. Learn to translate your accomplishments into business language, create a targeted resume, prepare for [...]

Personality and Conflict-Resolution Workshop

Apr. 17, 12:00 pm
Room C5702 – Penn State College of Medicine

At this event co-hosted by Career Services, the Office of Graduate Education and the Office of Student Mental Health and Counseling, learn about your unique personality type and ways you can effectively work with others and manage conflict.

The Invent Penn State Venture and IP (VIP) Conference 2018

April 20 @ 8:00 am - 7:30 pm
The Penn Stater Conference Center Hotel, State College
215 Innovation Boulevard
State College, PA 16803 United States

MAY

Science Policy, Law and Advocacy Panel for Students and Postdocs

May 21 @ 12:00 pm - 1:00 pm
Room C1845 A/B – Penn State College of Medicine

Invited panelists will speak about respective career paths, current positions and responsibilities, skills and experiences needed to enter the field, and rewarding and challenging aspects of related work. There will be ample time for questions and answers.

How to Engage Learners in Higher-Order Thinking

May 23 @ 12:00 pm - 1:00 pm
Room HG305 (Anteroom) – Penn State Health Milton S. Hershey Medical Center |Recurring Event (See all)
What exactly is higher-order thinking? Following an interactive activity focused on Bloom's Taxonomy, participants will discuss planning and writing objectives. Methods that support higher-order thinking will be explored. CME credit will be provided. Online registration is required.



Do you have cool fluorescence, confocal or EM images to share?

We are looking for cover images for our newsletter "CONNECT".

An excellent way to share your research and highlight your findings!

We look forward to your contributions to this inventory of images.

Please send your images to
rmoyer7@pennstatehealth.psu.edu



RESEARCH ACHIEVEMENTS

We have introduced the "Research Achievements" section to highlight and enlist the recent achievements of the postdoctoral scholars from The Penn State College of Medicine. Please send us the details of your recent achievements, including:

- Publications (News and Views, Press Coverage)
- Patents
- Talks/poster presentation at conferences
- Grant Awards

This is an excellent platform to share your interesting research, highlight your achievements and provide opportunities for collaborations.

Please send in your details to
rmoyer7@pennstatehealth.psu.edu

DATA & DINE 16th Annual Postdoctoral Research Symposium

DATE: Tuesday, March 13th, 2018
TIME: 12:00 – 5:00 p.m.
LOCATION: University Conference Ctr
(located in the Fitness Center)

The College of Medicine community is welcome to attend this event highlighting the research accomplishments of postdoctoral scholars.

KEYNOTE SPEAKER:

Dr. Sindura Ganapathi

(Bill and Melinda Gates Foundation)

Dr. Ganapathi previously worked in the Dept of Pharmacology at Penn State Hershey. He is now Chief of Staff of the Global Health Program at the Bill & Melinda Gates Foundation. In this role, he coordinates leadership and staff activities for the Global Health (GH) division, and serves as the president's liaison to GH staff and across the foundation. He also is a key thought partner on the president's external engagement. Having excelled in a non-academic career he will be able to speak to how he made the transition.

**Event Includes a Lunch
&
Poster Session**



For More Information, Contact Becky Moyer at Ext. 4565 or
Email: rmoyer7@pennstatehealth.psu.edu



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POSTDOC LUNCH AND NETWORKING 2017

The Postdoctoral Society has recently begun the Postdoctoral Lunch and Networking (PLaN) series here at the College of Medicine. The goal of this series is to have informal and interactive discussions on topics that are of interest to the postdoctoral community. These meetings are intended to offer an opportunity to engaged with new peers and discuss novel techniques, career advancement opportunities and other events taking place around campus.

AUGUST

The inaugural PLaN event brought together a panel of new faculty members to describe their transition into their first junior faculty positions. Drs. David DeGraff (*Pathology*), Katherine Aird (*C&M Physiology*), Rebecca Phaeton (*Obstetrics & Gynecology*), and Nicholas Buchkovich (*Microbiology & Immunology*) spoke candidly about the rigors of the application and interview process, as well as the nuances of getting a new laboratory up and running.

OCTOBER

Our next PLaN event was an informative and interactive session with guest speaker, Dr. James Broach (*Chair, Biochemistry and Molecular Biology*), on the topic of CRISPR/Cas9 technologies. Since its discovery, many biomedical research questions are now being investigated using CRISPR/Cas9 technology. With certain ethical considerations, CRISPR/Cas9 can also being applied to modify the human germline. Dr. Broach offered an in depth look at the methodology and application of this technique and provided an insightful perspective for future of CRISPR/Cas9 genome editing.

DECEMBER

Our most recent PLaN event invited our research community to learn about Cryo-electron microscopy (cryo-EM), a new tool to understand the three-dimensional structure and function of biological macromolecules. Our very own in-house expert in the field of Cryo-EM, Dr. Susan Hafenstein (*Biochemistry & Molecular Biology, University Park*), spoke about her renowned work in this revolutionary technique, and described the resources available to our researchers her at the COM.

Do YOU HAVE A PLAN?

We are looking for postdocs to volunteer to host future sessions for this series. This would entail choosing and topic, organizing the speaker and/or panelists, as well as choosing the menu!

Please contact Katie Kokolus (kkokolus@pennstatehealth.psu.edu) with your ideas!

K-GRANT WORKSHOP SERIES

This free annual workshop series is designed to assist early-career faculty members and trainees interested in the mentored career development award. The NIH's mentored "K" award – the most rigorous of career development grants – serves as a model throughout the series.

In this series, participants will be introduced to the basic structure of an NIH "K" proposal and learn effective grant preparation strategies to help them be competitive with a variety of funders. The four-part series culminates with two facilitated panel discussions focused on demystifying the proposal development and review process. Several College of Medicine faculty members will graciously share their expertise and time, paying it forward by serving as presenters and panelists.

Participants will learn:

- How to assess which mentored award is the best fit based on career stage and goals
- Best practices for navigating institutional commitment discussions
- How to maximize communications with the program officer
- Strategies to identify and engage a strong mentoring team
- Grant preparation strategies, including both do's and don'ts
- How to learn from reviewer feedback and respond to a grant review

Several senior faculty members co-direct the workshop series, which is sponsored by the Office of the Vice Dean for Research and Graduate Studies. Each session combines didactic training with group discussion and each session focuses on a specific theme, building upon the previous week's session. Participants who attend all four sessions learn to develop a rigorous, well-defined mentored career development proposal.

March 26 @ 7:30 am - 9:30 am
Room C3621 – Penn State College of Medicine

April 9 @ 7:30 am - 9:30 am
Room C3621 – Penn State College of Medicine

April 16 @ 7:30 am - 9:30 am
Room C3621 – Penn State College of Medicine

April 23 @ 7:30 am - 9:30 am
Room C3621 – Penn State College of Medicine



The banner features the Penn State logo (a shield with a lion) and the text "PennState" in blue. Below this is the "Invent PENN STATE" logo, with "Invent" in a large, white, sans-serif font and "PENN STATE" in a smaller, white, sans-serif font. Underneath the logo is the tagline "the ingenious power of partnership" in a small, white, sans-serif font. The main title "Venture & IP Conference" is in a large, white, sans-serif font. Below the title is the date "April 19 & 20, 2018" in a large, white, sans-serif font, and the location "The Penn Stater Conference Center Hotel" in a smaller, white, sans-serif font. The background of the banner is a photograph of a classical building with a dome and columns, with green leaves visible on the right side.

The Invent Penn State Venture and IP (VIP) Conference will return in Spring 2018.

The inaugural conference in 2016 showcased more than 90 start-up ventures — 14 from the Penn State community — that represented high growth and emerging markets including IT, energy, advanced manufacturing, biotechnology, healthcare, B2B and B2C, among others. The 2018 conference is expected to be an even bigger draw.

For additional information, go to the event website: invent.psu.edu

POSTDOCTORAL ACHIEVEMENTS



Dr. Kathleen Kokolus
Microbiology and Immunology
Advisor: Dr. Todd Schell

Dr. Kokolus' recent findings show that metastatic melanoma patients who were taking pan β -blockers in addition to immunotherapy had improved overall survival compared to patients taking a selective β_1 -blocker or no β -blocker at all. This work was published in *Oncolmmunology* and featured in the Penn State News and Science Daily.

Kathleen M. Kokolus, Ying Zhang, Jeffrey M. Sivik, Carla Schmeck, Junjia Zhu, Elizabeth A. Repasky, Joseph J. Drabick, Todd. D. Schell. Beta blocker use correlates with better overall survival in metastatic melanoma patients and improves the efficacy of immunotherapies in mice. *Oncolmmunology*, 2017.



Dr. Sathi Babu Chodiseti
Microbiology and Immunology
Advisor: Dr. Ziaur Rahman

The goal of Dr. Chodiseti's research is to understand the mechanisms that regulate germinal centers mediated systemic autoimmunity. Below are two of his most recent publications.

Bae HR, Hodge DL, Yang GX, Leung PSC, **Chodiseti SB**, Valencia JC, Sanford M, Fenimore JM, Rahman ZSM, Tsuneyama K, Norman GL, Gershwin ME, Young HA. The interplay of type I and type II interferons in murine autoimmune cholangitis as a basis for sex-biased autoimmunity. *Hepatology*. 2017.

Soni C, Schell SL, Fasnacht MJ, **Chodiseti SB**, Ziaur S.M. Rahman. Crucial role of Mer tyrosine kinase in the maintenance of SIGN-R1⁺ marginal zone macrophages. *Immunol Cell Biol*. 2017.



Dr. Preeti Bhadauria
Obstetrics and Gynecology
Advisor: Dr. Rebecca Phaeton

GRANT AWARD

Dr. Bhadauria received a Pilot project funding for a year (October 2017- October 2018) from the department of OBGYN, Penn State Hershey. The title of the proposed grant is "Novel immunotherapy against HPV-16/18 Oncoproteins to inhibit Cervical Cancer"



Dr. Shwetank
Microbiology and Immunology
Advisor: Dr. Aron Lukacher

Dr. Shwetank is studying the role of PD1 in establishment and maintenance of brain resident CD8 memory cells in the mouse polyomavirus (MuPyV) encephalitis model. In his recent publication, he showed that the expression of PD1 is independent of the availability of the cognate epitope as well as virus induced inflammation.

Shwetank, Abdelsamed HA, Frost EL, Schmitz HM, Mockus TE, Youngblood BA, Lukacher AE. Maintenance of PD-1 on brain-resident memory CD8 T cells is antigen independent. *Immunol Cell Biol*. 2017.

Commentary: Park SL, Mackay LK *PD-1: always on my mind. Immunology and Cell Biology* 2017.

Maru S, Jin G, Desai D, Amin S, **Shwetank**, Lauver MD, Lukacher AE. Inhibition of Retrograde Transport Limits Polyomavirus Infection *In Vivo*. *mSphere*. 2017.

Young Investigator Award, Adaptive Biotech, Shwetank (PI), 01/11/16-01/11/17

Studies on evolution of TCR repertoire in high affinity brain-resident CD8 memory T cells during polyomavirus infection



Dr. Angela Henderson-Redmond
Anesthesia and Perioperative Medicine
Advisor: Dr. Daniel Morgan

Dr. Redmond's research interests are driven towards understanding the key neurobiological and molecular pathways that mediate the development and maintenance of drug dependence and tolerance. Listed below are her recent publications.

LaFleur RA; Wilson RP; Morgan DJ; **Henderson-Redmond AN**. Sex differences in the development of tolerance to delta-9-tetrahydrocannabinol (Δ^9 -THC) and CP55,940 in a mouse model of inflammatory pain. *Neuroreport*. In Press, 2018.

Henderson-Redmond AN; Lowe TE; Tian XB; Morgan DJ. Increased ethanol drinking in "humanized" mice expressing the mu opioid receptor A118G polymorphism are mediated through sex-specific mechanisms. *Brain Res Bull*. 2017.

Nealon CM; Patel C; Worley BL; **Henderson-Redmond AN**; Morgan DJ; Czyzyk TA. Alterations in nociception and morphine antinociception in mice fed a high-fat diet. *Brain Res Bull*. 2017.

Marcus DJ; **Henderson-Redmond AN**; Gonek M; Zee ML; Farnsworth JC; Amin RA; Andrews M-J; Davis BJ; Mackie K; Morgan DJ. Mice expressing a "hyper-sensitive" form of the CB1 cannabinoid receptor (CB1) show modestly enhanced alcohol preference and consumption. *PLoS One*. 2017.

Address Stress with Mindfulness

Medical occupations are stressful. Healthcare providers have up-close contact with life-threatening illnesses, challenging patients, and a changing healthcare climate that can be tough to manage. So, it's not a surprise that burnout (a combination of being emotionally worn out, not connecting with our patients, and feeling unable to change our situation) is more common in healthcare providers than peers in other industries. (1) Of course, we will always have sick and challenging patients. And we must work to improve the system of care, but that will take time. What should we do in the meantime? Is there any way we can address the stress?

Mindfulness provides a method to work with stressful circumstances. Mindfulness is a built-in capacity that we all have, that we can develop with practice. It involves paying attention to exactly what's happening in the present moment in a nonjudgmental way. (2) Many studies have demonstrated the effectiveness of mindfulness in improving the stress and burnout of healthcare providers. (3,4,5)

Penn State Health is making mindfulness resources available for employees. In 2018, we will offer employees Mindfulness Based Stress Reduction and a twice-monthly mindfulness practice group. Look for news about both opportunities soon! Meanwhile, here are resources available to explore this powerful technique—listed below.

Resources

♦ Books

- ◊ Full Catastrophe Living by Jon Kabat Zinn.
https://www.amazon.com/dp/B00C4BA3UK/ref=dp-kindle-redirect?_encoding=UTF8&btcr=1
- ◊ Attending by Ron Epstein.
https://www.amazon.com/s/ref=nb_sb_noss?url=search-alias%3Ddigital-text&field-keywords=attending+ron+epstein

♦ Apps & Websites

- ◊ www.mindful.org
- ◊ 10% Happier <http://www.10percenthappier.com>
- ◊ Calm <https://www.calm.com>

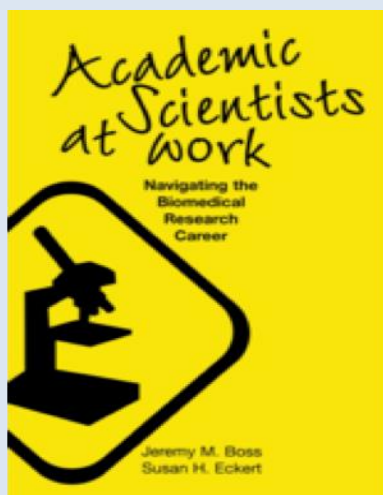
1. Shanafelt TD, Hasan O, Dyrbye LN, et al. Changes in Burnout and Satisfaction With Work-Life Balance in Physicians and the General US Working Population Between 2011 and 2014. *Mayo Clin Proc.* 2015 Dec;90(12):1600-13.
2. Kabat-Zinn, Jon. *Full Catastrophe Living : Using the Wisdom of Your Body and Mind to Face Stress, Pain, and Illness.* New York: Bantam Books trade paperback, 2013. Print.
3. Burton A, Burgess C, Dean S, et al. How Effective are Mindfulness-Based Interventions for Reducing Stress Among Healthcare Professionals? A Systematic Review and Meta-Analysis. *Stress Health.* 2017 Feb;33(1):3-13
4. Lamothe M, Rondeau É, Malboeuf-Hurtubise C, et al. Outcomes of MBSR or MBSR-based interventions in health Care providers: A systematic review with a focus on empathy and emotional competencies. *Complement Ther Med.* 2016 Feb;24:19-28
5. Krasner MS, Epstein RM, Beckman H, et al.. Association of an educational program in mindful communication with burnout, empathy, and attitudes among primary care physicians. *JAMA.* 2009 Sep 23;302(12):1284-93.

If you are interested in educational opportunities regarding mindfulness, please contact:

Timothy Riley, MD at
tdr11@psu.edu.



WELCOME DR. JERRY BOSS



On February 2, the Postdoctoral Affairs Office was delighted to host Dr. Jeremy Boss, Chair of the Department of Microbiology and Immunology at Emory University School of Medicine, to present a seminar entitled, "Getting a Job in Academia & the First 1000 Days."

Dr. Boss is a renowned scientist in the field of epigenetic regulation of adaptive immune responses. His best-selling book, *Academic Scientists at Work; Navigating the Biomedical Research Career*, guides the scientist on the journey from the end of a postdoctoral career to the point of promotion to Associate Professor.

Dr. Boss spoke to the postdoctoral community in detail about how to find job postings, best practices in putting together a research statement, and how to prepare for a job seminar and chalk talk. He also provided useful tips on how to navigate difficult situations that often arise during interviews and negotiations. Dr. Boss's visit marks yet another valuable career development initiative provided by the Postdoctoral Affairs Office.



LOCAL EVENTS AROUND TOWN

Ice & Fire Festival

March 3, 2018
Location: Downtown Harrisburg
Admission: Free

Harrisburg St. Patrick's Day Parade

March 18, 2018
Venue: Harrisburg Downtown Improvement District

Lucky Charm 5K - 10K Race

March 18, 2018
Venue: Harrisburg Downtown Improvement District

Capital 10 Miler

March 31, 2018
Location: City Island, Harrisburg
Venue: Harrisburg City Island

Opening Weekend with the Harrisburg Senators

From: April 13, 2018 – April 15, 2018
Location: Harrisburg Senators Baseball
Venue: Harrisburg Senators Baseball
Admission: See event listing
Recurrence: Recurring daily

2018 Spring Carlisle

From: April 18, 2018 – April 21, 2018
Location: Carlisle Fairgrounds
Venue: Carlisle Events

Cars 4 Critters Car Show

May 12, 2018
Venue: The AACAA Museum

Hershey Artfest & Flower Show

May 12, 2018
Location: Downtown Hershey
Admission: Free

35th Annual Rhubarb Festival

From: May 18, 2018 – May 19, 2018
Location: Kitchen Kettle Village
Venue: Kitchen Kettle Village
Admission: Free

25th Annual Free Shakespeare in the Park: A Midsummer Night's Dream

From: June 1, 2018 – June 16, 2018
Location: Reservoir Park, Harrisburg PA
Admission: Free

CONCERTS AT HERSHEY PARK

Def Leppard and Journey 2018 Tour

May 25, 2018

Kendrick Lamar

Jun 02, 2018

Harry Styles Live On Tour

Jun 14, 2018

Zac Brown Band: Down the Rabbit Hole Live

Jun 22, 2018

Adventures of Kesha and Macklemore Tour

Jul 21, 2018

Lynyrd Skynyrd: Last of the Street Survivors Farewell Tour

Jul 28, 2018

Fall Out Boy

Sep 01, 2018



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From the Director's desk...

This issue of Connect brings a major change to the running of our newsletter. I am very excited that the postdoctoral scholar community of the College of Medicine has taken over responsibility for the conception, writing and publishing of this newsletter. **Connect is now BY and FOR Postdocs!!** Please join me in welcoming our inaugural postdoc Editorial Board: Drs. Jason Biegel, Sreejata Chatterjee, and Colleen Netherby. Future issues of Connect will feature postdoc research highlights and accomplishments, as well as professional and social issues important to all postdocs. Your ideas and contributions are encouraged!

Kristin A. Eckert



Pictured Above:
Kristin Eckert, Ph.D.



Pictured Above:
Becky Moyer