

Physiology News

April – June 2020 · Volume 3 · Issue 2

A Message from the Chair

Dear All,

As we brace ourselves for the heat of the summer, we appear to once again be caught in COVID limbo. The daily news of increasing case numbers, particularly among the younger members of society puts a new light to our much-anticipated transition to a less restrictive social environment. Most of us have been able to return to a relatively normal work schedule. Some have had a little bit more difficult time than others, and I want to remind you that you don't have to navigate this alone. We can lean on each other to get moving in the right direction.

The events during the past few weeks, marked by the death of Mr. George Floyd awakened our dormant consciences urging us to proactively seek change. Regardless of political affiliations, we as a department have come together to educate ourselves, to raise awareness of our personal and institutional racism, and to develop plans to make a difference. No longer will we remain silent. No longer will this not be our collective issue. We will be allies, we will hold each other accountable, and we will set the example for others to follow.

During the past 3 months we have also found cause for celebration. Matthew Herrera and

Zach Stielper completed their degree requirements, Elizabeth Delery and Elizabeth Fucich both are moving on to their new faculty positions, Amanda Pahng moved to the VA, and Brianna Bourgeois joined the Simon lab. We celebrated Juneteenth, Pride month,

and the 4th of July. On a personal note, I share my joy of seeing my eldest son (Mikey) "ZOOM graduating" from his Neurology residency!



At times like this we must stay positive and look for small successes to cherish. I encourage you to take care of yourselves, focus on your families, and keep a positive outlook. We have come so far; we must keep going.

Please be mindful, keep social distancing, wear your mask, and consider all efforts to reduce risk for you and those around you.

Sincerely,

Mechanisms of Alcohol-Induced Lymphatic Endothelial Cell Leakage

Patricia

Inside this edition:

Message from the Chair	1	Grants
Featured story	2	Publications
Recognition	3	Presentations
New Faces	3	Professional Service
Graduate Student Milestones	4	Notable Events
Ed	ditor: Danielle Levitt, PhD	

1



Physiology News



Featured story: Mentoring Today By: Lisa Harrison-Bernard, Phi

The May 2020 issue of *The Physiologist* contained an article titled "Nurture Now: Mentoring today means tailoring interactions to meet the needs of each student" by Heather Boerner and Sarah Watts. The article describes the importance of getting to know students and trainees as individuals for successful mentorship. Mentors need to tailor their mentoring to the individual student more broadly than in the past, in part due to the diversity of students. Adrienne King, PhD, a physiologist and clinical assistant professor at the Georgia State University School of Public Health, has learned that mentoring any student, but especially students from marginalized communities, requires the mentor to learn where the student is coming from so they can help provide the resources they need. Nearly 70% of graduates end up in education, industry or clinical care, rather than going into academic research, according to research published in 2018. Jeff Osborne, PhD, professor of biology, physiology and neuroscience at the University of Kentucky says, "We have to prepare students to move in every direction. Greg Brower, DVM, PHD, associate professor of medical education at the Texas Tech University Health Sciences Center, is increasingly charged with helping mentees connect with people working in industry, including startups, and the clinical world, which increasingly needs them, too. Caroline Appleyard, PhD, a professor at Ponce Health Sciences in Puerto Rico, says "... that there's a big difference between everyone being treated the same and everyone having the same access, the same background. You have to take individual populations and find out where they need more help to achieve equity."

The Chronicle of Higher Education published an article by Vimal Patel entitled "Science-Diversity Efforts Connect Grad Students with Mentors". She described that most minority-group members enroll in graduate programs at lower rates than white students do – but many observers say a lack of good mentoring is a key factor. Ansley Abraham, director of the Southern Regional Education Board's State Doctoral Scholars Program says, "I can be an advisor to anybody. But a mentor implies that there's something much more personal going on between that student and faculty member."

As the Director of the Postbaccalaureate Research Program in the Biomedical Sciences at LSUHSC, I too, have had to reach outside of academia to provide role models for the scholars in the program. We have had visiting scientists from the pharmaceuticals meet with them to discuss how the Ph.D. degree can open doors for them in industry. We took them to the New Orleans Bioinnovation Center to learn about how scientist embark on biomedical start-up companies. They had an opportunity to hear about a career with the U.S. Navy research division. Scholars attend weekly skills development workshops to learn about working in the laboratory, imposter syndrome, giving poster and oral presentations, and writing a manuscript. They found the mock graduate interviews extremely helpful. Overall, we want to prepare our scholars for acceptance, retention, and success in earning a Ph.D. degree and future careers in the biomedical sciences.

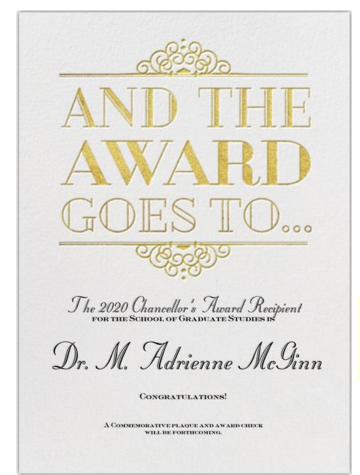


2



Recognition

Dr. Adrienne McGinn was awarded the 2020 Chancellor's Award for the School of Graduate Studies.



Congratulations to **Dr. Amanda Pahng** for transitioning to her independent position as a Research Health Scientist at the Southeast Louisiana VA on May 26, 2020. Her Career Development Award and new laboratory will be investigating the neurobiological interactions of chronic pain and fentanyl dependence. She will remain affiliated with LSU Health New Orleans as an Instructor – Research (gratis) in the Department of Physiology.

Congratulations to **Dr. Elizabeth Delery** for her acceptance of a tenure-track faculty position as Assistant Professor of Microbiology and Immunology at the Marian University College of

Osteopathic Medicine in Indianapolis. Her new email address is: <u>edelery@marian.edu</u>.

Congratulations to Dr. Elizabeth Fucich for beginning her Professor of Practice position at Tulane University. Her new email address is <u>efucich@tulane.edu</u>.

Dr. Jason Gardner was promoted to Tenured Full Professor. Congratulations!

Jessica Cucinello-Ragland was elected President and Nicholas Fried was elected Vice President of Public Relations of the School of Graduate Studies Student Government Association.

Dr. Patricia Molina was elected as a member of the Academy of Sciences of Latin America (Academia de Ciencias de América Latina; ACAL) in May 2020 and was inducted as President of the Research Society on Alcoholism (RSA) in June 2020.

Dr. Marcus Weera was an RSA 2020 Enoch Gordis Postdoctoral Recognition Award Finalist, talk entitled "Central Amygdala Signaling in Stress-Induced Avoidance Behavior & Escalation of Alcohol Consumption."

New Faces



Brianna Bourgeois (left) officially joined Dr. Liz Simon's laboratory as an MD/PhD student in June after rotating with Dr. Simon last summer. She earned a B.S. in Bioengineering from LSU and spent two years working at Pennington Biomedical Research Center in Baton Rouge

before starting her training at LSUHSC.

Erin Davis (right) is a new Research Associate in the Edwards Lab. Erin holds a BS in Anthropology and MS in Neuroscience and will be working on the lab's medications screening projects.





Dr. Rajani Maiya (right) joined the department as an Assistant Professor. Dr. Maiya obtained her PhD in Molecular Biology from the University of Texas at Austin. She completed postdoctoral fellowships at the



Rockefeller University and the The University of California at San Francisco. In her NIH-funded laboratory, Dr. Maiya will use a combination of genetic, molecular, pharmacological, and wholegenome strategies to identify the molecular



mechanisms that underlie Alcohol Use Disorder.

Sarah McQuirter (left) is a Neuroscience and Spanish major at Tulane University. She will be working in the Edwards Lab.

Welcome to the Summer Student Research Interns working with us throughout the summer:

- Katie Adler
- Tyler Dillon
- Mick Dubic
- Eden Gallegos
- Viet Le
- Ari Saravia
- Isabella Welsh
- Jeanette Zavala

Graduate Student Milestones

Dr. Zach Stielper successfully defended his doctoral dissertation.

Jessica Cucinello-Ragland received a JIT for their F31 application titled *Regulation of Pain by Alcohol and Endocannabinoids in the Basolateral Amygdala.*

Grants

Edwards, S and Winsauer, PJ. Examination of NEPE14 in an Animal Model of Chronic Inflammatory Pain. Contract with Full Spectrum Omega, Inc. \$7,350.

McQuirter, S and **Edwards, S**. Neurobiological Correlates of Pain in the Context of Opioid Addiction. Newcomb-Tulane College Research Grant. \$1,000.

Publications

Albrechet-Souza, L, Schratz, CL, and Gilpin, NW. Sex differences in traumatic stress reactivity in rats with and without a history of alcohol drinking. *Biol. Sex Differ.* 11(1):27, 2020. DOI: 10.1186/s13293-020-00303-w. PMID: 32393336.

Bazan, HA, Bhattacharjee, S, Burgos, C, Recio, J, Abet, V, **Pahng, AR**, Jun, B, Heap, J, Ledet, AH, Gordon, WC, **Edwards, S**, Paul, D, Alvarez-Builla, J, and Bazan, NG. A novel pipeline of 2-(benzenesulfonamide)-N-(4-hydroxyphenyl) acetamide analgesics that lack hepatotoxicity and rotain antipyropia. *European Journal of Mediainal*

retain antipyresis. *European Journal of Medicinal Chemistry* (In press).

Delery, EC, and **Edwards, S (2020).** Neuropeptide and cytokine regulation of pain in the context of substance use disorders. *Neuropharmacology*, 174:10853. PMID: 32470337.

Harrison-Bernard, LM, Augustus-Wallace, AC, Souza-Smith, FM, Tsien, F, Casey, GP, and Gunaldo, TP. Knowledge gains in a professional development workshop on diversity, equity, inclusion, and implicit bias in academia. *Adv. Physiol. Educ.* 44 (3): 286-294, 2020. PMID: 32484403.

Ferguson, TF, Beauchamp, A, Rosen, E, Ray, AN, Theall, KP, **Gilpin, NW, Molina, PE**, and **Edwards, S**. Adaptation of an Alcohol, Tobacco, and Illicit Drug Use Intervention for Vulnerable Urban Young Adults. *Frontiers in Public Health, 2000.* (In press).

Ferguson TF, Rosen E, Carr R, **Brashear M, Simon L**, Theall KP, Ronis MJ, Welsh DA, and **Molina PE**. Associations of Liver Disease with Alcohol Use among People Living with HIV and the Role of Hepatitis C: The New Orleans Alcohol Use in HIV Study. *Alcohol Alcohol,* 2020. PMID: 31812989.

Ferguson, TF, Theall, KP, Brashear, M, Maffei, V, Beauchamp, A, Siggins, RW, Simon, L, Mercante, D, Nelson, S, Welsh, DA, and Molina, PE.



Comprehensive Assessment of Alcohol Consumption in Persons Living with HIV/AIDS: The New Orleans Alcohol and HIV Study. *Alcoholism: Clinical and Experimental Research*, 44(6):1261-1272, 2020. DOI: 10.1111/acer.14336.

Osna, NA, Bhatia, R, Thompson, C, Batra, SK, Kumar, S, Cho, Y, Szabo, G, **Molina, PE**, Weinman, SA, Ganesan, M, and Kharbanda, KK. Role of nongenetic risk factors in exacerbating alcohol-related organ damage (Review). *Alcohol*, 2020 Jun 1:S0741-8329(20)30227-5.

Rasineni, K, Srinivasan, MP, Balamurugan, AN, Kaphalia, BS, Wang, S, Ding, WX, Pandol, SJ, Lugea, A, **Simon, L, Molina, PE**, Gao, P, Casey, CA, Osna, NA, and Kharbanda, KK. Recent advances in understanding the complexity of alcohol-induced pancreatic dysfunction and pancreatitis development. *Biomolecules* 10(5): 669, 2020. PMID: 32349207.

Simon, L, Ferguson, TF, Vande Stouwe, C, Brashear, M, Primeaux, SD, Theall, KP, Welsh, DA, and Molina, PE. Prevalence of Insulin Resistance in Adults Living with HIV: Implications of Alcohol use. *AIDS Res Hum Retroviruses*, 2020 May 25 [ahead of print]; doi:10.1089/AID.2020.0029. PMID: 32449647.

Presentations

Drs. Liz Simon, Zachary Stielper, and **Stefany Primeaux** presented their work as part of our Hot Summer Seminar Series.

Professional Service

Dr. Lisa Harrison-Bernard is the new President of the Association for Women in Science - Southern Louisiana Chapter.

New APS Committee Appointments (3-yr terms):

- Dr. Liz Simon: Awards Committee
- Dr. Scott Edwards: Physiology Educators Committee
- Dr. Danielle Levitt: Physiology Educators Committee

Jessica Cucinello-Ragland and **Krystal Belmonte** volunteered to be on a Q&A panel about graduate school for the summer research interns.

Dr. Elizabeth Delery served as a reviewer for *Schizophrenia Research.*

Notable Events

The graduate students participated in the #ShutDownSTEM strike and developed a call to action to invite the rest of the department in joining them on strike. Many department members participated and have committed to continued education and action to combat racism in academia and in our daily lives.

Our department members have also been active in protesting systemic racism and police brutality against Black lives. Graduate students, postdocs, staff members, and faculty members have actively participated in protests across the city (pictured) and at the White Coats for Black Lives protest held at Tulane University (pictured).



Top left & bottom right: Pictures from protests across the city, submitted by **Dr. Tekeda Ferguson**. Top right: White Coats for Black Lives protest at Tulane University, submitted by **Jessica Cucinello-Ragland**. Bottom left: **Jonquil Poret**, Muhammad Farooq, **Jessica Cucinello-Ragland**, **Brittany Foret**, and **Krystal Belmonte** at the White Coats for Black Lives protest.

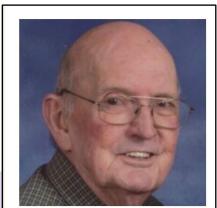
5



Meghan Brashear welcomed her new daughter, Marion Brigid Brashear (pictured, right, with her big sister) to the world on June 2, 2020. Congratulations, **Meghan** and family!



We express our deepest condolences to **Connie Poretta**, whose father, Peyton Palmer (pictured), passed away on May 24, 2020, and to **Leslie Brennan**, whose mother, Helen Elizabeth Boyle Brennan (pictured), passed away on June 13, 2020.



Peyton Andrew Palmer July 26, 1934 - May 24, 2020



Leslie Brennan sends the following message: "I deeply appreciate the thoughts and prayers, plants and flowers, personal cards and messages received following the loss of my mother."

Members of the Department of Physiology donated a total of \$700 t to help provide food for those in need during the COVID-19 pandemic. **Drs. Maureen Basha** and



Liz Simon used the donation to purchase food to donate to Lantern Light (pictured above) and donated remaining monies to Cattail Cooks.



Shealan Cruise won the "Work from Home Madness" contest in April (winning submission pictured, left).

Jessica Cucinello-Ragland organized a Pride Month event for the department with the assistance of Dr. Maureen Basha. Jessica



also came out at work as genderqueer and has changed their pronouns to they/them/theirs.



Kimberly Edwards attained a five-star island in Animal Crossing: New Horizons (left).

Jessica Cucinello-Ragland and Taylor Templeton received their teaching & tutoring evaluations (below).

