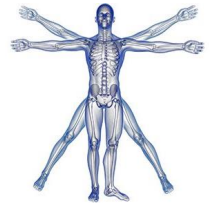


# Physiology News



October – December 2020 · Volume 3 · Issue 4

## A Message from the Chair

Patricia Molina, MD, PhD

Welcome 2021, 2020 is now in hindsight!

I sincerely hope all members of our Physiology family were able to enjoy the holiday season with loved ones, to cherish precious time with friends, and to reflect on the positives from this challenging year. As we welcome the new year and turn our attention to access to vaccination, we are all holding our breath for some return to normalcy in the next few months. In searching for inspiration from experienced leaders, a theme surfaces repeatedly. The wellbeing of the team is critical for the wellbeing of the individual. Conversely, the wellbeing of the individual is critical for the wellbeing of the team.

Again, I urge you to consider reaching out to others, to connecting with your peers, trainees, and staff making efforts to ensure we leave no one behind. I mean this in a literal and a metaphorical sense. Keeping careers on the right track has been challenging during the pandemic. Let us keep fighting to hold on to our goals and ideals. Ask for help when you need it. Talk to others to share your frustrations and fears. It is reasonable to be overwhelmed at this time, but not acceptable to ignore the need to connect. Isolation from the team is detrimental to all, so consider my request to reconnect whenever possible.

I wish you health, peace, joy, and success in this coming year. I look forward to our Physiology family growing from this shared painful experience and to enjoying happy times again!

Sincerely,

Patricia



### Inside this edition:

Message from the Chair.....	1	Publications.....	4
Featured story.....	2	Presentations.....	5
Recognition.....	3	Professional Service.....	5
New Faces.....	4	Notable Events.....	6
Grants.....	4		

Editor: Danielle Levitt, PhD



# Physiology News



Featured story:

## *The Other Side of Mentorship: Making the Most of your Mentee Experience*

*By: Bobby Siggins, PhD*

One of the most critical aspects of a scientist's training are their mentor-mentee relationships. As trainees, we often enter our graduate programs thinking that we will have only one mentor, but as we learn rather quickly, that is generally not the case. Indeed, most scientists I have met have had several mentors throughout their careers, and I am no different. I often think back to my first two mentors in undergrad. One was my PI, and a fantastic scientist. The other was my academic advisor, and a great sounding board. As I approached graduation, I had narrowed my choices for a career path to attending medical school or applying to graduate programs. My PI was adamant that I would hate medical school, and he knew me much better on a personal level. The other logically advised that I could do research as an MD if that is what I really wanted to do. Needless to say, I was young, and did not weigh the advice equally. I did not listen to what they were really telling me. I chose the advice that suited my conceptions of the prestige of medicine and embarked on a short stint in medical school.

We often hear seminars on mentoring and attributes of a good mentor. However, we rarely discuss attributes of being a good mentee. One need only perform a quick search on the internet to find that a good mentee should possess a drive to succeed, be hard working, have good time management skills, and maintain a positive attitude. Additionally, mentees should respect authority, be open to learning, possess clear communication skills, show initiative, and have a demonstrated capability to be effective leaders. These qualities are not unique to being a mentee, as each and every one of these attributes

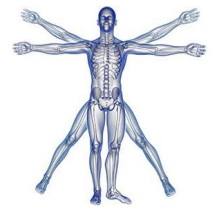
is necessary to be successful in whatever we choose to do. In fact, simply perusing a graduate education in order to embark on a career in biological sciences necessitates that you probably have each of these characteristics, to varying degrees. However, I have come to believe that two attributes in particular, are absolutely required to even begin to embark on a successful mentor-mentee relationship. Those are humility and the ability to listen.

**"THANKFULLY I EVENTUALLY FOUND MY WAY TO THE GRADUATE PROGRAM HERE AT LSUHSC IN THE DEPARTMENT OF PHYSIOLOGY, BUT I STILL HADN'T ACHIEVED THE SKILLS REQUIRED TO GET THE MOST OUT OF A MENTOR-MENTEE RELATIONSHIP."**

Humility is the first necessity, and this quality is often in short supply in academia. By its very nature, academia requires practitioners to possess ample self-confidence and self-will. Thus the balance of these often battling attributes is critical to success. Had I possessed the requisite humility early on in my career, I probably would have chosen a graduate program first off, rather than attempting medical school. Thankfully I eventually found my way to the graduate program here at LSUHSC in the Department of Physiology, but I still hadn't achieved the skills required to get the most out of a mentor-mentee relationship.



# Physiology News



Thankfully, humility, like all other attributes, can be cultivated. We spend vast amounts of time devouring and digesting literature to be experts in our fields. Thus, we often get a sense that we know something to be true, especially in the microcosm of what we study. I have bristled countless times when I've heard a lecture or seminar that couldn't possibly be true because I read this article in Nature, or that article in Science that said otherwise. However, searching PubMed for "why most published research findings are false," and you will find 36 articles that discuss this topic. So, rather than coming from a position that the knowledge I possess is infallible, I make an effort to remind myself that I may be wrong. Going into every interaction with this thought actively present in my mind allows for a situation for humility to prevail. And only then am I able to truly listen to what I am hearing.

This brings me to what I consider the second critical attribute to maximizing dividends as a mentee—listening. Listening is an active process. Effective listening requires our humility to truly process what we are hearing. Just looking back at the advice of my first two mentors, I surely could have listened more effectively had I just possessed a little more humility and followed up the discussion with more research into the two different paths that I was contemplating.

Active listening should not be limited to major decisions in one's life. When I was younger, I would 'listen' to others, but I was ready to respond to whatever was being said before my mentor was finished talking. That doesn't sound like active listening, does it? If anything, it sounds adversarial. I eventually learned a habit from a businessman who would purposefully wait 3 seconds to respond to a person after they were finished talking. While this can be distracting to active listening, it does not take long until the habit is formed. I have found that when communicating, by actively practicing this "wait to respond" technique brings a certain mindfulness to the listening process, and it usually prevents me from prematurely formulating a response.

These two attributes are by no means the only characteristics you must have in order to become a successful mentee. In the end, how do we measure whether someone has been successful in this role? I think that the rubric of success in this case, is learning all that you can from a given mentor. And the openness to learning requires cultivating humility and practicing active listening in order to maximize what you receive from the mentor-mentee relationship.

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## Recognition

In November 2020, **Dr. Patricia Molina** received the Jack Hines Memorial Award for outstanding commitment to the LSUHSC School of Graduate Studies. She was also invited to give the Ruth L. Kirschstein (RLK) Memorial lecture for the 20th Building Interdisciplinary Research Careers in Women's Health (BIRCWH) program of the NIH Office of Research on Women's Health (ORWH). The virtual lecture was held on December 14, 2020. *The RLK Lecture highlights a distinguished scientist whose mentorship and training, research and*

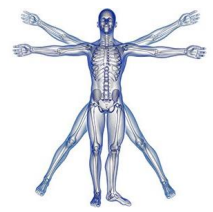
*leadership accomplishments had positive effect on public policy, public health, and the training of several generations of biomedical researchers. She was selected for her dedication to mentorship and training, impressive alcohol research record and leadership accomplishments.*

**Chloe Ball** received her MBA in October.

**Diego Torres** won the Virtual Experience Presentation Award for Physiology and Pharmacology at the 2020 Annual Biomedical Research Conference for Minority Students.



# Physiology News



**Dr. Marcus Weera's** recent first-author publication titled "Central amygdala projections to lateral hypothalamus mediate avoidance behavior in rats" was selected as a "Featured Article" in the Journal of Neuroscience 40th Anniversary Special Edition.

**Drs. Elizabeth Avegno** and **Lucas Albrechet-Souza** were appointed as ADACE faculty.

## New Faces



**Dr. Sydney Vita** recently received her PhD in Neuroscience from the University of Mississippi Medical Center with her dissertation entitled "Blood-brain barrier alterations following traumatic brain injury". She is joining our

department as a postdoc in the labs of Dr. Nick Gilpin and Dr. Patricia Molina studying the interaction between alcohol and traumatic brain injury. Originally from New Orleans, Sydney is very happy to be starting her career in her hometown.

Originally from Cleveland, Ohio, **R.E. Natowicz** is a recent graduate of Oberlin College, graduating in 2018 with a degree in Biology. R.E. moved to New Orleans last year to participate in a service year program called Avodah, working for a federally qualified health center called EXCELth, Inc. that focuses on providing healthcare to underserved communities. For fun R.E. enjoys painting and spending time outdoors.



## Grants

"MicroRNAs as Key Regulators of Gene Expression in Skeletal Muscle of Children with Cerebral Palsy." Pilot award from the Academy of Pediatric Physical Therapy, 2020-2021. PIs: Drs. Noelle Moreau & Liz Simon.

**Laura Monteagudo-Romero** received a \$5300 scholarship from the Usona Institute for her proposal titled "Therapeutic Effects of Psilocybin in Alcohol Use Disorder and Pain".

## Publications

**Avegno, EM, Kasten, CR, Snyder III, WB, Kelley, LK, Lobell, TD, Templeton, TJ, Constans, M, Wills, TA, Middleton, JW, & Gilpin NW.** (2020). Alcohol dependence activates ventral tegmental area projections to central amygdala in male mice and rats. *Addiction Biology*, doi: 10.1111/(ISSN)1369-1600.

Creutzberg, KC, Kesting-Ferreira, E, Viola, TW, Wearick-Silva, LE, Orso, R, Heberle, BA, **Albrechet-Souza, L**, De Almeida, RMM, Grassi-Oliveira, R. (2020). Corticotropin-releasing factor infusion in the bed nucleus of the stria terminalis of lactating mice alters maternal care and induces behavioural phenotypes in offspring. *Scientific Reports*, 10: 19985.

Gunaldo, TP, Mason, M, **Harrison-Bernard, LM**, Davis, A, Andrieu, S, Brisolaro, K, Brown, A, Goumas, A, Kreko, A, Roi, C, Sanne, S, Wall, L, **Yue, X**, Zamjahn, J, Patrick-Esteve, J. (2021). Qualitative analysis of pre-licensure student perceptions of ingroup professional stereotypes. *Journal of Interprofessional Education & Practice*. *In press*.

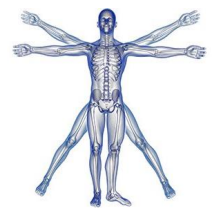
Jia, H, **Yue, X**, & Lazartigues, E. (2020). ACE2 mouse models: a toolbox for cardiovascular and pulmonary research. *Nature Communications*, 11(1):5165. PMID: 33057007.

**Levitzky, M**, Hall, S, Kaye, AD, and **McDonough, K**, *Clinical Physiology in Anesthetic Practice*. McGraw-Hill, 2021, 304 pp. (New book)

Natividad, LA, Steinman, MQ, **McGinn, MA**, Sucheschandra, S, Kerr, TM, Ciccocioppo, R, Messaoudi, I, **Edwards, S**, and Roberto, M. Impaired hypothalamic feedback dysregulates brain glucocorticoid signaling in genetically selected Marchigian Sardinian alcohol-preferring rats. *Addiction Biology*. *In press*.



# Physiology News



Patel, RR, Wolfe, SA, Bajo, M, Abeynaike, S, **Pahng, AR**, Nikzad, R, **Edwards, S**, Pauste, S, Roberts, A, and Roberto, M. IL-10 normalizes aberrant amygdala GABA transmission and reverses anxiety-like behavior and dependence-induced escalation of alcohol intake. *Progress in Neurobiology*. In press.

**Weera, MM**, Shackett, RS, Kramer, HM, Middleton, JW, and **Gilpin, NW**. (2020). Central amygdala projections to lateral hypothalamus mediate avoidance behavior in rats. *Journal of Neuroscience*, 41(1): 61-72. PMID: 33188067.

## Presentations

**Dr. Elizabeth Avegno** presented a seminar titled “Mesoamygdala circuitry is activated in alcohol dependent mice and rats” in the Department of Physiology Seminar Series.

**Dr. Lucas Albrechet-Souza** gave a talk titled “Exposure to predator odor stress induces differential startle reactivity and endocannabinoids expression in the amygdala of male and female rats with a history of alcohol drinking” at the XII Forum on Neurobiology of Stress & International Symposium on Ethanol Research (October).

In October, **Dr. Patricia Molina** gave talks titled “Alcohol-SIV/HIV-ART Interactions; Understanding the Mechanisms Underlying Risk for Comorbidities” (University of Georgia Department of Physiology and Pharmacology virtual seminar) and “The uncharted road to translational study of the biomedical comorbidities associated with risky alcohol use; A personal perspective” (Diversity, Equity and Inclusion Working Group of the Graduate School of the Biomedical Sciences at the University of North Texas Health Science Center Virtual Seminar Series).

**Dr. Xinping Yue** gave an invited Zoom seminar title “Chronic nicotine inhalation and cardiopulmonary dysfunction” on Nov 12th, 2020 at the School of Veterinary Medicine, LSU-Baton Rouge.

**Diego Torres** presented a poster titled “Chronic Alcohol-Mediated Mechanisms of Pancreatic Dysfunction in Simian Immunodeficiency Virus

infection” at the Annual Biomedical Research Conference for Minority Students, virtual meeting, in November 2020.

At the American Physiological Society’s Integrative Physiology of Exercise virtual meeting (November), **Dr. Lauri Byerly** presented a poster titled “Dietary Quality of Muscle Builders Who Do or Do Not Consume a Protein Supplement”, **Dr. Stefany Primeaux** presented a poster titled “Preliminary findings from a pilot study investigating the effects of an aerobic exercise intervention in persons living with HIV with at risk alcohol use, and **Dr. Danielle Levitt** presented a poster titled “Stay-at-home mandate during COVID-19 pandemic negatively impacted dietary, activity, and alcohol use patterns in people living with HIV with at-risk alcohol use”.

**Jessi Cucinello-Ragland** gave a talk titled “Invisibility, Imposter Syndrome, and Identity” at LSUHSC’s LGBTQ+ STEM Day Virtual Event.

The department presented twice for Xavier University’s *Wellness Wednesdays*. On November 11, **Dr. Scott Edwards** presented “Get Rich Slowly: Personal Finance for Young Adults” and on November 18, **Dr. Danielle Levitt** and **Jessi Cucinello-Ragland** spoke about the “Causes and Consequences of Drug and Alcohol Abuse”.

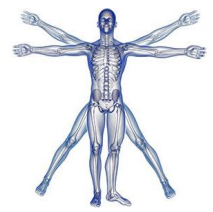
**Katie Adler** presented a virtual poster titled “Circulating myomiR levels as a clinical indicator of alcohol-mediated skeletal muscle dysfunction in PLWH” at the AMA Research Symposium in December.

## Professional Service

**Dr. Danielle Levitt** organized and co-chaired the Young Investigator’s Panel and a scientific session titled “Alcohol as a challenge to ending the HIV epidemic” at the National Hispanic Science Network conference in October.

**Drs. Elizabeth Avegno** and **Christian Montanari** judged for LSUHSC Graduate Research Day (Nov. 4-5).

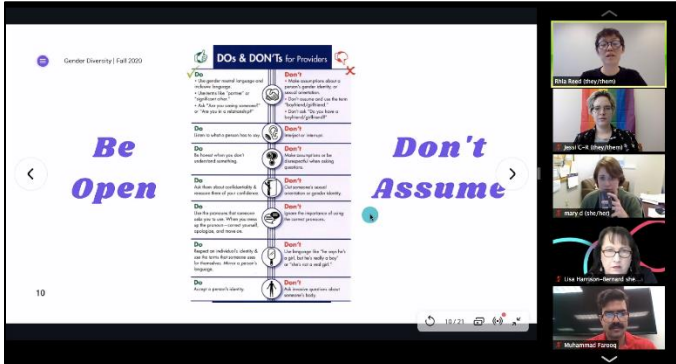
**Dr. Christian Montanari** was a reviewer for the Society for Research on Nicotine and Tobacco (SRNT) to select the scientific activity to be



# Physiology News

presented at the Society's 2021 Annual Meeting (December 4-15).

**Jessi Cucinello-Ragland** and Muhammad Farooq organized and co-hosted LSUHSC's first LGBTQ+ STEM Day event.



Mark and **Lisa Bernard** welcomed their first grandchild on November 29, 2020. Her name is Palmer Zoe Bernard and she weighed 6 pounds, 7 ounces.



## Notable Events



Despite a rough regular season and bit of a letdown from the Saints Defense in the championship final, **Dr. Scott**

**Edwards** won the Scripps Fantasy Football League (The Dark Side 9.0) by a score of 128-99 over Dr. Leandro Vendruscolo (NIDA). The LSU Physiology Fantasy League (Mental Hygienists) returns in Fall 2021!

**Taylor Templeton** and Chuck Jager were engaged on November 25, 2020.



**Nicholas Fried** and **Dr. Jason Gardner** were interviewed by WWL regarding Nicholas' recently published review article on Heat-not-Burn tobacco products. Link to interview:

<https://www.wvltv.com/video/news/health/hnb-carries-similar-health-risks-as-vaping-cigarettes-studies-show/289-88c9f930-4a66-45d3-8d85-477fc0eb69e3>

**Jessi Cucinello-Ragland** reached their highest achievement as a neuroscientist and has taught their nephew (pictured below) to say "amygdala."





# Physiology News



Our winners for the Pumpkin Carving Contest were **Diego Torres** (scariest pumpkin), **Dr. Maureen Basha** (cutest pumpkin), and **Dr. Tekeda Ferguson** (most original/creative pumpkin), below.



The Department of Physiology came together to provide Christmas gifts for a family in need (right).

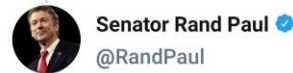


A humorous bit of news from the Gilpin Lab: The **Gilpin Lab** was featured in Senator (R) Rand Paul's Festus Report as an example of wasteful government spending.

Our winners for the holiday door decorating contest were **Drs. Danielle Levitt & Sydney Vita** (Quarantree); the **Admin Office** (fireplace covered with cheer) and **Adrianna & Aleyda** (crafty snowman) tied for 2<sup>nd</sup> place (below).



A close-up of the Admin Office door:



Senator Rand Paul  
@RandPaul

In my favorite WTF moment of the #Festus Waste report: Your government spent \$4.5 million to spray alcoholic rats with bobcat urine.

12:25 PM · 23 Dec 20 · Twitter for iPad

8,489 Retweets 1,181 Quote Tweets

20.7K Likes

From the report: "In all seriousness, here's exactly what the researchers did, in layman's terms. They spent five weeks giving rats 'intermittent' access to alcohol to get them hooked. Then, they put the rats in a cage, and literally sprayed them with bobcat urine, a predator's odor, to simulate trauma. Then, they tested whether males and females responded differently." Pg 110.

<https://www.paul.senate.gov/sites/default/files/page-attachments/2020FestusReport.pdf>

**\*\*\*For the record, we do NOT spray alcoholic rats with bobcat urine. ☹️\*\*\***

