

# Physiology News

July-September 2022 Volume 5 Issue 3

## Message from the chair

Patricia E. Molina, MD, PhD

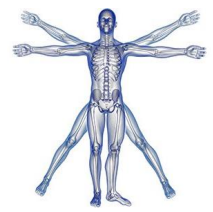
This past week we have been reminded of how fragile and vulnerable we are, as we watched the news coverage of Hurricane Ian and the devastation it caused in its path. I am sure that many shared my feeling of PTSD as I kept thinking of how we were affected last year by Ida. It also made me realize that when you are not directly impacted by these events, our lives go on as usual. I think of this as we all are trying to make up for lost time during the pandemic. In person conferences are back, travel and all its associated issues is back in full force. I know several of us are participating in scientific conferences and enjoying reconnecting with our colleagues around the world after almost 2 years of ZOOM meetings. Personally, I am delighted to be able to go to these conferences and reconnect with my peers. This fall promises to be busy and potentially challenging as we adjust to the idea of our laboratories and offices being relocated during the MEB renovation. I am committed to keep you informed every step of the way and to look out for our collective interests. I feel particularly optimistic about the state of our department. Our trainees are working to achieve our high expectations (and some of them exceeding them as they go along), our staff have shown commitment to our mission and are excelling at their roles, and our faculty are continuously achieving recognition both within and outside the institution for their achievements. Learning about your hobbies, travels, family, and pets during the State of the Department Address reassures me that you have found a way to thrive and flourish while enjoying life. I am proud of our collective accomplishments, I am honored to work with each and every one of you in achieving our research, teaching, and service mission, and I urge you to never forget that the most important things in life are your health, your family, and your loved ones.

Best wishes for a healthy and productive fall,  
Patricia





# Physiology News



## Inside this edition:

Chair's message	1	Grants	4
The Versatile PhD - Jonquil Poret	2-3	Publications	4
Graduate student milestones	3	Presentations	4
Recognition	3	Notable events	4
New faces	3	Recycle	4
Editor: Liz Simon			

## The Versatile PhD

Jonquil Poret



As a PhD student or even a post-doctoral researcher, it's important to remember that your training has equipped you with many transferable skills. As I contemplate on my graduate training years and future career, I organized my thoughts on what are the key skills I developed that are translatable to a nonacademic career. This essay highlights soft and technical skills most applicable, regardless of your specific subject area. This is not an exhaustive list, but it is meant to spark interest in thinking about all the different potential careers options.

### **Communication careers**

During your PhD training you'll have developed excellent written communication through writing journal articles, conference abstracts, and your thesis. Of course, you'll also have great oral communication skills after giving what feels like millions of presentations on your research at meetings with your lab members, departmental and institutional presentations, or at conferences. Written and oral communication skills are directly transferable into a huge range of careers. Depending on what your PhD is in, you'll be more suited to some roles over others. Below is a list of a few careers options for STEM PhD to give you some inspiration:

- Science communication/writing, patents, and science policy are great careers for those in STEM.
- Publishing, marketing, or consultancy are careers which have huge variation in the roles, meaning regardless of your subject area you'll find a role to suit your interests and expertise

### **Specialist careers**

Over the course of your undergraduate degree, possibly master's degree, and your PhD you'll have developed technical expertise in your subject that is essential for certain roles. Some of these jobs for STEM PhD include:

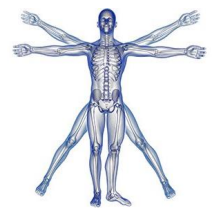
- Teaching in a secondary school or college
- Think tank research or industry research, such as non-academic research organizations that influence public policy around an important issue or cluster of issues
- Scientist for pharmaceutical or engineering companies
- Medical science liaison

### **Analytical and Management Careers**

During your PhD, you'll certainly be used to dealing with *LOADS* of data, whether it's literature or numerical data. These skills are considered analytical skills, and if analyzing data is what you're all about, why not analyze other people's data professionally as an analyst? In fact, by the time you finish your PhD training, you'll be a management master, skillfully able to balance your time between research, data analysis, writing, conferences,



# Physiology News



lectures, and a host of other things PhD students are involved in. Not to mention, you'll be used to working on a research team (to a greater or lesser extent depending on the size of your lab) so managing and working with a team shouldn't seem too daunting! Collectively, these skills refer to many of the skills gained during PhD training and are grouped under the umbrella of "management" skills. Environmental analyst

- Research/Market analysts gather, organize, and interpret data that businesses use to make critical decisions. These career options may also be referred to as consultants.
- Data scientists utilize their experience with quantitative research methods, including dataset analysis and statistical techniques
- Research/Project managers provide their organization with the expertise, skills, tools, and techniques required to execute projects within constraints of time, scope, and budget. Though these are typically an upper-level position, these roles engage skills that many PhD students have done several times including communication of technical information to a non-scientific audience, technical expertise, working as part of a larger team, strong problem-solving skills, and an appreciation for the cost, scope, and timelines of various projects.

With the increasing number of PhD graduates and the scarceness of faculty positions, pursuing academic research is no longer the norm, and other career opportunities are moving into the foreground. There is a host of career paths one can take after completing their PhD, so please explore them. As we've all been taught throughout our training, networking is important! Don't be afraid to contact people who work in your career of interest and ask them questions about their job and how they got there. In my limited experience, most people are happy and honored to talk about it. The most important thing to remember is to focus on selling the transferable skills developed during your training. I hope this has provided some insight and maybe sparked interest into some of the career opportunities outside of academic research.

## Graduate Student Milestones

**Eden Gallegos, Kourtney Weaver, and Taylor Fitzpatrick-Schmidt** successfully submitted F30s to the NIH

**Eden Gallegos, Kourtney Weaver, and Taylor Fitzpatrick-Schmidt** did an outstanding job to prepare and pass the qualifying exams. Kudos to your efforts.

## Recognition



**Melissa Prestwood** was awarded Light of Physiology, 2022. Melissa was also awarded the Chancellor's Excellence Award, 2022.

**Stefany Primeaux** received the Chancellor's Excellence Award, 2022.

**Sydney Vita** was awarded **F32AA030496** NRSA Postdoctoral Fellowship. NIH/NIAAA. Alcohol exposure exacerbates inflammation and anxiety-like



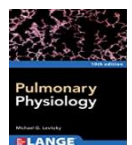
behavior induced by repeated mild TBI during adolescence. Role: Principal Investigator. Sydney was also awarded the 1L40AA030413-01. **Loan Repayment Program.** NIH/NIAAA. Role: Principal Investigator.



**Anna Whithead** was awarded 2022 Levitzky Outstanding Teaching Award. Anna was invited for an oral Session at the 64th ASH Annual Meeting and Exposition, December 10-13, 2022, in New Orleans. Anna is also nominated to be a co-chair of a session at APS Summit.

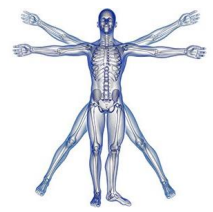
**Kourtney Weaver** received a travel award and will give an oral presentation at AIRIG. Kourtney will also have a poster presentation at the Society of Leucocyte Biology.

**Michael Levitzky** published Pulmonary Physiology, 10<sup>th</sup> Ed. McGraw-Hill (Lange series), 2022.





# Physiology News



## New Faces

**Evan Doré.** Research Technician in Maiya Lab. Recently graduated from LSU, currently applying to medical school and plan to pursue a MD-PhD



## Grants

**Smith AA.** AAST Research and Education Fund Trauma Critical Care Scholarship, July 2022-July 2023

## Publications

**Bourgeois B, Levitt DE, Molina PE, Simon L (2022).** Chronic Alcohol and Skeletal Muscle. In Handbook of substance misuse and addictions. Edited by V.B. Patel and V.R. Preedy.

**Byerley LO, Chang HM, Lorenzen B, Guidry, Hardman WE (2022).** Impact of dietary walnuts, a nutraceutical option, on circulating markers of metabolic dysregulation in a rodent cachectic tumor model. *Biomedicine & Pharmacotherapy*. 155: November 2022.

**Gallegos EM, Reed TD, Mathes FA, Guevara NV, Neau DB, Huang W, Newcomer ME, Gilbert NC.** Helical remodeling augments 5-lipoxygenase activity in the synthesis of proinflammatory mediators. *J Biol Chem*. 2022 PMID: 35863431.

Hutak JL, Boolani A, **Byerley LO (2022).** Energy drink usage by students attending an online university. *J Am Coll Health*. PMID: 35997694.

**Levitt DE, Simon L, Lin HY, Siggins RW, Ferguson TF, Molina PE, Welsh DA (2022).** Alcohol use, physical activity and muscle strength moderate the relationship between body composition and frailty risk among people living with HIV. *Alcohol Clinical Experimental Research*. PMID. 36124866.

**Simon L, Molina PE (2022).** Cellular Bioenergetics: Experimental Evidence for Alcohol-induced Adaptations. *Function*. PMID. 36120487.

**Simon L, Bourgeois B, Poret J, Molina PE (2022).** Skeletal muscle and adipose tissue: targets or relays for interorgan axis in alcohol-induced tissue injury?

In Alcoholism and Alcohol-related disorders, edited by Sebastian Mueller and Markus Heilig.

## Presentations

**Edwards S.** and Wojnar M. Chaired the Symposium Intersection of pain and Alcohol Use Disorder risk at the Joint meeting of the ISBRA and ESBRA at Cracow, Poland, September, 2022. Edwards gave an oral talk, *Analgesic efficacy of alcohol in the context of chronic pain* at the Symposium.

**Molina PE and Simon L.** Chaired the Symposium Alcohol-associated dysbiosis; contribution to frailty comorbidities. Joint meeting of the ISBRA and ESBRA at Cracow, Poland, September, 2022.

**Simon L, Bourgeois B, Levitt DE, Molina PE. Presented a poster (virtually).** Differential regulation of alcohol-mediated decreased skeletal muscle stem cell differentiation in SIV-infected female macaques: Implication of microRNAs and bioenergetics. Joint meeting of the ISBRA and ESBRA at Cracow, Poland, September, 2022.

**Smith AA, Fontenot C, Lau F, Phelan H, Carter J, Hobden J.** Cytokine profile of adipose-derived stem cells from patients with severe burn injuries. Poster presentation. Shock Society. June 2022.

## Notable Events

**Alison Smith.** Edward "Teddy" Anthony Ready IX, Born 9/9/22 at 9pm.



**Sydney Vita** got to spend a week in Guatemala.



When possible, please recycle glass items (e.g., isoflurane containers) in the lab! Wash with water (3-5 times) and remove outside labels. A collection box is available in MEB 7272. Idea conceived and primary contact Dr. Elizabeth Avegno.