The 14th World Congress (WCE2021-Virtual) on Endometriosis

The 14th World Congress on Endometriosis (WCE2021-Virtual) took place from March 6th-10th, and we were very well represented by our RISE Program Director, Dr. Caroline Appleyard, and Dr. Idhaliz Flores (RISE mentor). Dr. Appleyard presented ongoing collaborative studies from her lab which have been investigating the impact of voluntary wheel running in an animal model of endometriosis and have been able to show that exercise as a complementary therapy might alleviate endometriosis symptomatology by modulating the HPA-gut axis and immune modulation. Dr. Flores presented outcomes on the clinical and demographic profile in patients from Iberia-America. This virtual experience was attended by over 600 delegates from 51 countries across several time zones and enabled participants to access the latest research on endometriosis. The science presented was outstanding yet highlighted the need for additional research studies and understanding for this often-incapacitating disease.

Congratulations to Dr. Appleyard and her lab staff, we are very proud of you all!

The American Association for Cancer Research (AACR) Virtual Annual Meeting 2021

The American Association for Cancer Research (AACR) Virtual Annual Meeting 2021 was held from April 10th-15th. Its program covered the latest discoveries across the spectrum of cancer research and highlights the work of the best minds in research and medicine from institutions all over the world. We congratulate our 2nd year RISE trainee, Sheila Valle, on attending this important meeting, as this was a great opportunity for her to learn and network. Sheila works under the mentorship of Dr. Pedro Santiago, and the goal of her project is to characterize a proteomic biomarker combination that could be used in the clinic to distinguish between aggressive and indolent forms of prostate cancer.

Congratulations, Sheila, keep up the good work!

By: Sheila Valle (2nd year RISE trainee)
PD SESSION: THE NEXT GENERATION SCIENTIST: TIPS AND TOOLS FOR TALKING TO LARGE AUDIENCES

By: Alexandra N. Aquino (3rd year RISE trainee)

On March 12, Dr. Kelly Hyndman, an Assistant Professor of Medicine in the University of Alabama at Birmingham, offered a professional development session titled: “The Next Generation Scientists: Tips and Tools for Talking to Large Audiences.” Throughout the session, Dr. Hyndman talked to RISE trainees about her professional journey and shared her insight. Most recently, Dr. Hyndman is a physiologist and studies epigenetics of fluid electrolyte balance in normal and disease states.

During the session, Dr. Hyndman shared various aspects to consider when choosing to engage a large audience. She emphasized on the importance of a scientific reach; the number of different people exposed to our research in a given period. Our reach is important because the more people we reach, the more who will download, read, and cite our work. Another key factor for reaching large audiences is to get invited to give talks and present at meetings. All these elements will increase our connection to the community.

As part of the session’s dynamic, Dr. Hyndman encouraged RISE trainees to brainstorm ideas on how to make a lively presentation and increase our reach. She provided a list of things we should know prior to speaking to an audience, such as: 1) to whom are we speaking; 2) what is our story; 3) how long do we have to speak; 4) what do we want them to learn; and 5) what visuals will serve to amplify our story. Moreover, additional key aspects to keep in mind when talking to a large audience include conveying our excitement, keep things simple, and practice. She also gave tips on how to succeed at giving an exciting and energetic presentation.

In terms of using social media to increase our network, Dr. Hyndman highlighted how accessible professional resources are, like, finding scientific meetings and journal clubs on Twitter. Finally, social media can be a great tool to professionally build a network and increase our reach. To do so, Dr. Hyndman recommends we decide what our goals are, select a community, and start participating. RISE trainees appreciated the insight and tips on how to approach large audiences. We thank Dr. Hyndman for such an excellent session.

EXPERIMENTAL BIOLOGY MEETING 2021

Experimental Biology (EB) is the annual meeting of five societies that explores the latest research in anatomy, biochemistry and molecular biology, investigative pathology, pharmacology, and physiology. Participants represent scientists from academic institutions, government agencies, nonprofit organizations and industry. The meeting features plenary lectures, workshops, symposia, posters presentations, on-site career services and exhibits spotlighting products and services integral to this professional community. Our RISE trainees Nelly Arroyo (2nd year), Joshua Pérez (1st year) and Yobet Pérez (1st year) attended this important meeting. Former RISE trainee, Luis Rivera (3rd year), presented his work titled Voluntary Exercise Modulates Neuroimmune Response in Colonic Inflammation Induced by Endometriosis. This is one of the ongoing studies at Dr. Appleyard’s lab, that aims to understand how endometriosis affects the gastrointestinal system, and the mechanism by which exercise can exerts its beneficial effects. Great job!
.external_advisory_committee_meeting_2021

The PHSU NIGMS RISE program held its virtual annual advisory committee meeting on March 19th, 2021. This meeting brought members of the internal and external advisory committees together to discuss short-and long-term plans to achieve program goals, monitor progress, make recommendations and review our impending progress report. The EAC had extensive and productive meetings with the Internal Advisory Committee (Drs. Caroline Appleyard, James Porter, Vanessa Rivera, Guillermo Armaiz, Harold Saavedra, and graduate student/former RISE trainee, Lubriel Sambolin), the current RISE trainees and with key members of the PHSU administration. We thank our EAC members, Dr. Estela Estape, Dr. Andrew Tsin and Dr. Charles Irvin, for their valuable contributions and commitment to our program, as well as the IAC, trainees and research mentors for their feedback and dedication. Thank you all!

PD session: Rigor and Reproducibility

On April 9th, 2021 our Associate Program Director, James Porter, conducted a discussion session on Rigor and Reproducibility. He discussed the issues raised in the paper by Dr. Regina Nuzzo titled ‘Fooling Ourselves’. In addition to reading Dr. Nuzzo’s article, trainees were asked to make a list of all the ways in which they and their labs are increasing the rigor and reproducibility of their research experiments. Dr. Porter encouraged trainees to consider additional things that could be done to further increase rigor and reproducibility in their experiments. Participants had a lively discussion of how our cognitive bias affects our interpretation of experiments and what practices can be incorporated to reduce the influence of cognitive bias on our research.

Contributing factors

- Competitor analysis on piping publications with statistically significant results
- Motivated us to see what we want to find
- Larger survival rate on one of the networks
- More solid data analytics
- More complex data sets with fully understanding the methods to find small effects
- Can software be biased?

How do we detect data errors?

- “The results seemed perfectly reasonable.”
- “If nothing seems wrong, it’s easier to miss it.”
- Our talent for jumping to conclusions makes it
- Too easy to find false patterns in randomness
- Ignore alternative explanations for a result
- Or accept ‘reasonable’ outcomes without question
- Cognitive bias

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PHSU RISE Graduate Training Program

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