UP Fall Research Symposium

On Tuesday, October 29th, UP research students gathered in Franz Hall to share their research findings with fellow students and faculty members. Check out the pictures and posters below to see what some of your fellow classmates have been up to over the summer!

Genetic Analysis of a Cell Cycle Regulatory Network in the C. elegans Germline

By: Amy Moore
Faculty Mentor: Dr. David Wynne
STAT3 Inhibitor H230 as an Anti-cancer Drug for Breast Cancer Cell MDA-MB-231
By: Kaylyn Fukuji
University of Hawaii Cancer Center

Cardenolide Content in Native Oregon Milkweed under Various Environmental Conditions
By: Maddie Wallace
Faculty Mentor: Dr. Laurie Dizney

Coronary Artery Maturation in Response to Shear Stress
By: Cole Malibiran
Faculty Mentor: Dr. Laura Dyer
Testing a Method to Increase the Survival of LCHAD Deficient Pups Through Cage Heating of Pregnant Mice

By: Gabriela Hernandez Duran

OHSU

Role of the TonB Systems in Delivery and Removal of Antibiotics in *Vibrio vulnificus*

By: Brianne Zbylicki and Eva Richman

Faculty Mentor: Dr. Ryan Kenton

Murdoch Conference Photos

Every year, student researchers funded by the Murdock Charitable Trust attend the November Murdoch Undergraduate Research Conference to share their research findings with the rest of the community. Take a look at the photos below to see some fellow classmates!

Pictured: Kelcie Davis
Pictured left to right: Cole Malibiran, Pia Fornell, and Dr. Laura Dyer. **Pia won the poster prize for Developmental Biology/Physiology!**

Pictured: Amy Moore
Pictured: Kristen Uskovich and Eva Richman

Pictured: Brianne Zbylicki
Biology Seminars

This semester the Biology Department hosted a few seminars. Two talks were given by UP faculty, and the other talk was given by a UP biology alum. Take a look at the photos below to see what their talks were about.

Graduate School experiences
By: Sarah Barr, ‘15

“The Biology of Zombies”
By: Ryan Kenton, PhD

“The Awesome Power of Worm Genetics! Using *C. elegans* to Study a Chemotherapy Target”
By: David Wynne, PhD
My name is Broderick House, and I was a student at the University of Portland from 2014-2018. Before delving into what my degree in Biology, and double minor in Chemistry and French have allowed me to accomplish since graduation, I’d like to mention what I found to be the most important aspects to being a student, and now an alum; and that is generosity, curiosity, and resiliency. When I began my Freshman year, I was certain that I would help people by entering the medical field. Being a Biology major with an aspiration to be a doctor, I began volunteering in the neuro and medical Intensive Care Units at OHSU. If you are interested in medicine, I strongly recommend doing something of this nature; the pre-med club and Dr. Flann were extremely helpful in this effort. Being a volunteer gave me the opportunity to work one-on-one with patients, families, and clinicians while learning first-hand what it would mean to be a physician. Most importantly though, it gave me a perspective into how the education I was receiving wasn’t just prepping me for the MCAT, or just to check another course off of my list. My classes were training me to make a difference in whatever field I decided to pursue.

Seeing the limitations modern medicine was still facing, I decided to enter clinical research. I became a Murdock Undergraduate Research Scholar my junior year, and was placed into Professor Summer Gibbs’ lab in the biomedical engineering department at OHSU with an independent project. My work utilized many of my classes, including Anatomy and Physiology, Neurobiology, Organic Chemistry, and Biochemistry, to name a few, in order to identify a protein target for a known drug. The drug I was working to understand and develop, binds specifically to nerves, illuminating them so surgeons can avoid them during surgical operations. It was amazing to be able to see how the skills and knowledge I had learned from my classes were directly translatable to addressing current clinical needs. Being torn between entering the medical field or pursuing clinical research, I spoke to many of my professors. What I found was that all of my professors were able to help in ways I couldn’t have imagined. So reach out to them if you are wondering about anything!

Shortly after graduating, I decided to put applying to medical school on hold and continue exploring what a career in research would look like. As a result, I was hired as a research assistant in Professor Summer Gibbs’ lab, and not only continued my work in developing the nerve specific drug for image guided surgery, but I also began working on developing a technology that would allow...
surgeons to visualize exact tumor margins in the operating room for a myriad of different cancers. My research began to grow and with it, I began collaborating with physicians, biotech companies, and Dartmouth University.

These opportunities, however didn’t come one after another. It took time, and most importantly, it took the three key aspects I mentioned earlier: generosity, curiosity, and resiliency. Implementing these, along with not succumbing to the pressure of needing to have every detail of post-graduation life figured out, I was able to have fun in exploring what I wanted to do. This gave me the freedom to discover that I wanted a career in translational medicine, and more specifically in understanding and developing therapeutic drugs to treat peripheral nerve damage. Finding my passion allowed me to initiate a collaboration with a lab at OHSU that presented me the opportunity to learn from a scientist visiting from the University of Cambridge, UK.

As of late, I have recently been accepted into the University of Cambridge to pursue my PhD in clinical neuroscience, and am now moving forward to hopefully gain the funding necessary to make an impact in this field. This process was aided by both Dr. Ahern-Rindell as well as Dr. Flann, for whom I am extremely grateful. As a result of the summation of what I have learned from the University of Portland, and from working in the clinical setting, my career goal has become developing therapies for patients who face nerve damage who currently have no therapeutic course of action; and to make it available even in third world countries.

The education you are receiving at UP is one that will truly allow you to change the world if you let yourself dream big enough, and work hard. So always strive for your passion, and pursue what you want to achieve; even if in the moment it might not seem possible. Take as many classes as you can outside of your major, they will help you find out how you can leave a unique mark on this world. Most of all, don’t let yourself be your greatest obstacle. If you have any questions regarding my journey, or your own, and feel I may be able to help please don’t hesitate to reach out (house.broderick@gmail.com).