

# T H E N I C H E

## LETTER FROM THE CHAIR



It is a great honor for me to take over as Chair of our vibrant department. I cannot begin this letter without thanking Dr. John Dean for his 8 years of leadership and his patient mentorship of me in my new role.

I was asked, in this letter, to give some of my personal history in relation to DePaul. As I began composing this letter it veered in a direction I did not plan, motivated by current events!

I was hired as an Assistant Professor at DePaul in the fall of 1990 by Dr. Sidney Beck. In my first years I was supported by three faculty members hired just the year before me, Drs. Rick McCourt, John Dean, and Stan Cohn. Senior colleagues, Drs. Danute Juras, Dolores McWhinnie, Leigh Maginniss, and Sid more than warmly welcomed me. That was it! Four senior faculty and us new kids.

When I interviewed for the job Sid sternly told me, "We have no sexual discrimination in this department." I smiled and thought, "Give me the job and let me be the judge of that!" So it is time for me to issue that report card.

I have always found the biology department to be a supportive environment for me. During one faculty search nearly all the female faculty felt disrespected by a male job applicant. The male faculty didn't have to be persuaded of the validity of our reactions, they immediately took our experiences as disqualifying the candidate. Another time, a male teaching assistant was perceived to be giving preferential treatment to male students, our female students did not hesitate to call foul, and our faculty reacted quickly and decisively. Both these instances speak to a departmental culture where sexist behavior is not the norm and immediately stands out as unacceptable.

The majority of our students (over 60%) are female. Our department of 18 tenured/tenure track faculty is composed of 9 women and 9 men (I didn't realize that until I did the tally for this letter). I want to thank Sid Beck and the chairs who have preceded me: Leigh Maginniss, Stan Cohn, John Dean, and Dorothy Kozlowski (interim) for building an inclusive, supportive environment for all our students. As it should be, this culture is due to the sincere effort of both men and women. If this is not like the "real world" I'm Ok with sending off our female and male students with the expectation that all people should be treated with respect. I know our students will change the world through their scientific contributions, if they also demand equality, all the better!

I hope my recitation of faculty names, some retired, some deceased, (see the remembrance of Dr. Dolores McWhinnie in this issue) has sparked some happy memories that you might be willing to share along with your current triumphs.

In addition to our department's Facebook page, the department created a LinkedIn page for alums and current students of the biology department. Our hope is to connect current and former students, and to stay up-to-date on all our successes! To join the group, follow the link that is on the very back of this newsletter. Feel free to post in the group, we would love for alumni to let us know how they are doing. [□](#)

**Margaret Silliker**

Professor and Chair of Biological Sciences

## BEREAVEMENT



DOLORES MCWHINNIE

The department is sad to note the passing of Dr. Dolores McWhinnie, who died on August 13, 2017 at the age of 83. Dr. McWhinnie retired from the Department of Biological Sciences in 1999 after many years of being a stalwart advocate for research and teaching. Dr. McWhinnie specialized in endocrinology and had published articles in both England and the United States on hormone physiology and biochemistry and taught courses ranging from Endocrinology to Exotic Cats. Dr. McWhinnie was one of three McWhinnie sisters to have been part of the Biology Department during its history, including Dr. Mary Alice McWhinnie (first woman to winter-over in Antarctica) and Vivina (McWhinnie) Ortnier. She was a strong contributor to the education and advising of students in all of the health fields, and helped develop and promote the DePaul program in Allied Health Technologies (then Clinical Lab Science). She loved animals, especially horses and cats, and was responsible for the development of several large cat related courses at DePaul. Her advocacy for the protection of cats led to several fund-raising programs at DePaul where she brought in large cats (lions and tigers) for people to see. Scores of DePaul students had the opportunity to see (and pet) young exotic cats up close, as some of her favorite Big Cats lived with her in her condo and “attended” the University during the courses in which students learned about them. She was a tireless supporter for the maintenance of a strong and solid science education for both majors and non-majors, and was known for working with her students to ensure they knew their science with accuracy and precision. She is survived by her husband, Dr. Andre’ Rousseau, a scholar in both Theology and Clinical Psychology. The department mourns her loss, and is grateful for the everlasting imprint she left on the program. ■

## FACULTY PROMOTION, TENURE, & ACCOMPLISHMENTS

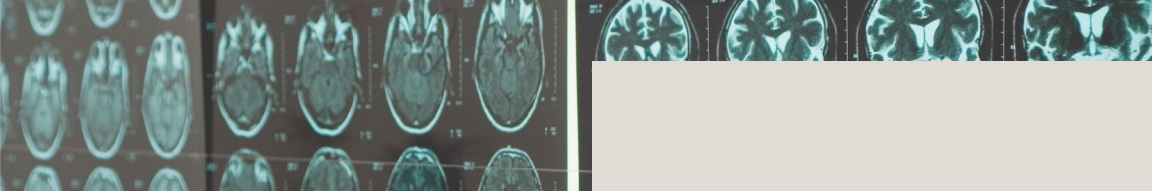


JOANNA BROOKE

The Department of Biological Sciences is pleased to announce two recent promotions within our department. Joanna Brooke, PhD, was promoted to Professor, and Jason Bystriansky, PhD, was promoted to Associate Professor with tenure. Congratulations to Dr. Brooke and Dr. Bystriansky. We also would like to acknowledge the accomplishments of other faculty members who are doing great work in the field. Dr. William Gilliland was featured on Fox News in October, sharing his expertise on DNA testing kits. Dr. JingJing Kipp has been elected by the Endocrine Society to serve for a second term as Chair of the Nominating Committee of Women in Endocrinology. Additionally, Dr. LaMontagne is working as a project collaborator for Oak Ridge National Laboratory looking at the effects of climate warming and CO<sub>2</sub> on spruce forest responses. We are so proud of our faculty and appreciate their dedication to our department, the biology field, and the community at large. ■



JASON BYSTRIANSKY, PHD



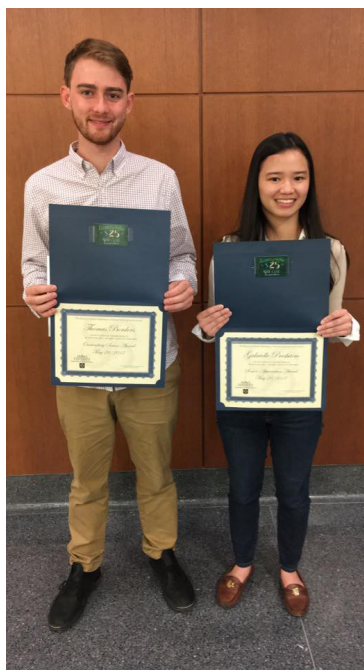
## BIOLOGY SENIOR AWARDS & SYMPOSIUM

Each year, the Department of Biological Sciences selects a graduating senior for our Outstanding Senior Award which is presented at the College of Science and Health Honor's Banquet and recognized at our annual Senior Symposium. The symposium not only recognizes our Outstanding Senior, but also acknowledges other senior awards. This year our Outstanding Senior award went to Thomas Boarders, and two Senior Appreciation Awards went to Gabrielle Presbitero and Cristian Ovie. The symposium also provides an opportunity for seniors to highlight and present some of their research projects within our department. This year included oral presentations by Amira Affaneh and Matthew Lahey from Dr. Eiron Cudaback's lab, and Franklin Joaquin from Dr. Aguirre's lab. There were also great poster presentations from Thomas Boarders and Melina Kanji from Dr. Aguirre's lab, and Francesco Guzzo from Dr. Shimada's lab. It was a fantastic afternoon of celebration!

### THOMAS BOARDERS

#### Outstanding Senior

Thomas served in several roles to foster community in the Biology department. As a founding member of DEEP, he acted as a liaison with the *Niche* to promote the student group. He conducted independent research, and was an effective TA and SI leader. He acted as an academic role model, providing student mentorship, and contributing to discovery in the lab.



### GABRIELLE PRESBITERO

#### Senior Appreciation Award

Besides her excellent academic achievement, Gabrielle was an outstanding SI leader. She also embarked on a bioinformatics project in the Gilliland lab, contributing several original ideas and assays to the project, and presented her work at the Midwest Drosophila Conference.

### CRISTIAN OVIES

#### Senior Appreciation Award

Cristian persistently sought out opportunities for independent research, and accomplished a lot in the lab. He received support from the SACNAS organization, as well as a DePaul URAP grant. He presented his work at the Chicago immunology conference, the DePaul Science Showcase, and a SACNAS meeting. He was awarded a summer research fellowship at UCLA, and is now in a Master's program.

;



## MEET AND GREET, FALL 2017



FACULTY MEMBERS AT OUR FALL 2017 MEET & GREET



NEW UNDERGRADUATE STUDENTS ENJOYING THE MEET & GREET

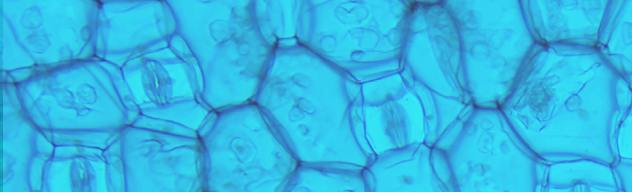
Don't know our teachers? Take a seat - and be part of our Meet & Greet! Our annual Biology Meet and Greet was held in September to kick off the school year and allow our students to meet one another and find out about our department and student groups. As always, we had presentations by our faculty members so students could learn more about research within the department and how to get involved, followed by a delicious spread and good conversation. Students were encouraged to learn more about our 7 concentrations (Integrative Biology, Cell & Molecular Biology, Ecology & Evolution, Medicine & Health, Microbiology & Biotechnology, Neuroscience, and Physiology) as well as the opportunities and activities of our student groups. Everyone had a great time meeting new students and catching up with returning ones!

## SCIENCE & MATHEMATICS UNDERGRADUATE RESEARCH SHOWCASE, FALL 2017



Congratulations to our Biology majors, as well as the non-Biology majors working with Biology faculty, who presented their research at the Science and Mathematics Undergraduate Research Showcase. We are once again proud to recognize the accomplishments of our students (and their mentors) on their great work!





JESSICA BARTON, Response of *D. pulex* populations to different patterns of algal food over time

TIMOTHY CRONIN, New anatomical data on the Late Cretaceous bony fish, *Micropterygion kansasensis*, from the Niobrara Chalk of Kansas

KYLE DECKER, Potential Mechanisms for NNS-Induced metabolic deviances: satiety hormone secretion and alterations in the gut microbiota

WERHAWET GEBREMESKEL, ROBIN REDLINE, LAUREN RITZEL, Effect of a triaminopyrimidine compound on the cell proliferation of MDA-MB-231 breast cancer cells

AZMENIA GUNAL, Skeletal anatomy of paired fins in lamniform sharks

MICHAELA JACOB, Consumption Trials at Brookfield Zoo

FRANKLIN JOAQUIN, Temperature and Diet Induced Phenotypic Plasticity in the Large Milkweed Bug (*Oncopeltus fasciatus*)

EVAN JOHNSON-RANSOM, Coelurosaurian dinosaur remains from the Upper Cretaceous Cedar Mountain Formation, Utah

KIRBY KARPAN, Multiple lineages of Nostoc form symbiosis with the green-algal lichen *Pseudocyphellaria glabra*

KIRSTEN KOCHAN, StrEP-tag Insertion and Purification of Ubiquitin on the LMP1 Oncogene

MEGHAN MCNICHOLAS, Zebrafish: A Model for Mutations Affecting Macrophages

SANTANNA PATTERSON, 5-HT<sub>1B</sub> Serotonin Receptor Expression in the Striatum: Regulation by Dopamine Depletion and L-DOPA Treatment

MEGAN PEFFLEY, Generation and Characterization of Amyloid Precursor Protein with C-terminal DYKDDDDK Tag

GABRIELLE PRESBITERO, Fmoc-based solid phase synthesis of Tissue Factor-binding peptide amphiphiles to control hemorrhage

ALIMA SAJWANI, Do Soil Nutrients Impact White Spruce Reproduction?

MARIAM SALEH, KATHERINE WALKER, Long-term Effects of Perinatal Exposure to Environmental Contaminants (PCBs) on Neural Reactions to an Inflammatory Challenge

MARYANA STRYELKINA, Analysis of Salicylic Acid Glucosyltransferases UGT<sub>47F1/F2</sub> chimeras

KATHERINE WALKER, Using Immunohistochemistry to Study Effects of Exposure to Environmental Contaminants (PCBs) on Microglia Activation

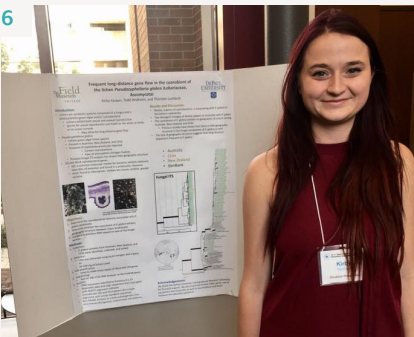
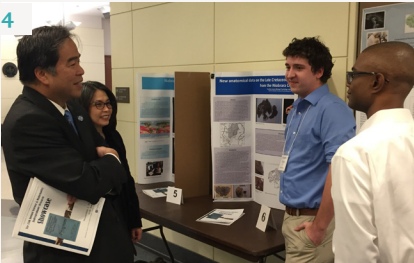
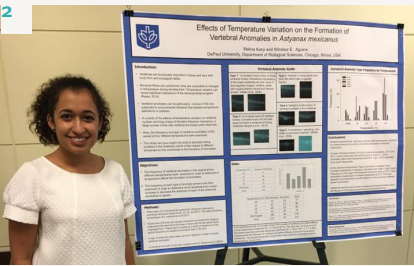
LEE WARNICK, Effect of Inter-species interactions on diatom photophobic response

NATASHA WIERZAL, Monitoring behavior of a solitary housed social primate

We are also happy to recognize three of our Biology majors, Meghan McNicholas, Jillian Serman, and Natasha Wierzal, who received College of Science and Health - Undergraduate Research Assistant Program (URAP) awards!



## PHOTO GALLERY



1. DePaul College of Science and Health students participated in the March For Science in April 2017
2. Melina Kanji presented her research at the Senior Research Symposium in June 2017
3. Jessica Vaclav, Kayce Miller, Sara Teemer, Sean Schaefer, Phil Sternes, and Francesco Guzzo gather at the Meet & Greet in September 2017
4. Biology majors Tim Cronin and Evan Johnson-Ransom shared their research projects with DePaul President Dr. Gabriel Esteban and his wife, Jo, at the Undergraduate Research Showcase in November 2017
5. Biology alum, Dan Clark, shared his expertise at the Science and Mathematics Undergraduate Research Showcase
6. Biology major & Dean's Undergraduate Research Fellow, Kirby Karpan, with her poster presentation at the Research Showcase

## THANK YOU, DR. JOHN DEAN!



Biologists know all about change, and it has come to our department. As of July 1, 2017, the Department of Biological Sciences welcomed Dr. Margaret Silliker as our new departmental chair. At our first faculty meeting of the academic year we not only greeted Dr. Silliker in, but honored former department chair, Dr.

John Dean, with a gift card for a Bonsai Tree. Like a well-groomed bonsai, Dr. Dean has helped shape us into the great department we now have, navigating us through the early days of the transition as the new College of Science and Health separated from the College of Liberal Arts and Sciences. He also helped us to hire new faculty, develop resources for teaching and research, and work to form collaborations with the Department of Health Sciences. He has also helped to coordinate our vision for the future. We look forward to working with Margaret and know she will do great things to keep moving us forward!

## HALLOWEEN: DINOSAUR ON CAMPUS!

To celebrate Halloween, we asked biology students to send in pictures of them in costume for a chance to be featured in the Niche. Senior biology student, Evan Johnson-Ransom chomped at the chance and sent us this picture of his inflatable dinosaur costume shown below. Evan's costume was very appropriate, as he also spent this past summer conducting researching and volunteering as a docent for Sue the Tyrannosaurus Rex at the Field Museum.



Department of Biological Sciences  
2325 North Clifton Avenue  
Chicago, IL 60614  
(773) 325-7595

NONPROFIT ORG.  
U.S. POSTAGE  
PAID  
PERMIT NO. 7366  
CHICAGO, IL

ADDRESS SERVICE REQUESTED

Find us on Facebook: [facebook.com/depaulbio](https://facebook.com/depaulbio)

Follow us on Twitter: @depaulbiodept

Follow us on Instagram: @depaulbiodept

Join our new LinkedIn Group for networking and mentorship opportunities!

<https://www.linkedin.com/groups/12068610>

## RESEARCH IN ACTION

As a population ecologist, Dr. Jalene LaMontagne is interested in understanding how the patterns of animal and plant populations change

over time and space. Dr. LaMontagne and her students study a variety of species, and their research focuses on three main areas: mast seeding (the synchronous and highly variable production of seed crops by plant populations), urban ecology, and the relationship between food availability and the resulting animal population patterns. To accomplish these studies, the LaMontagne lab uses organisms as diverse as white spruce, red-headed woodpecker, and the small crustacean *Daphnia pulex*. Dr. LaMontagne is also an Adjunct Scientist at the Urban Wildlife Institute and collaborates with both the Institute and the Lester E. Fisher Center at the Lincoln Park Zoo. For more details on the exciting research going on in Dr. LaMontagne's lab, check out her website at: <http://lamontagnelab.weebly.com> 