

T H E N I C H E



LETTER FROM THE CHAIR



I am pleased to introduce the most recent version of The Niche. We have a couple of changes in the newsletter's editorial staff. Stanley Cohn, PhD, has returned from a research leave and is again serving as a co-editor, and Felicia Gowanlock, our new departmental academic advisor, has graciously agreed to serve as a co-editor. We are very excited to have Felicia join our staff. Felicia received her BS degree in psychology with a minor in biology from Allegheny College and she received her MED in counseling with a concentration in college student development from DePaul. Before joining our department, Felicia was an academic advisor graduate assistant in Athletic Academic Advising here at DePaul. Felicia is a great addition to our department and we are very excited she has joined our staff. Faculty and staff in the department take great pride in the advising and mentoring that we do for our students. We have a great support system in place to help our students navigate our curriculum and select courses and experiences that will further their career goals. Felicia will no doubt help us continue that great tradition.

Michelle Johnson who served as a former co-editor of The Niche and was our departmental advisor for the past five years has moved to the college advising office and currently serves as the assistant director of undergraduate research. We wish Michelle the best.

There have been a couple of faculty promotions in the department. Timothy Sparkes, PhD, was promoted to full professor and William Gilliland, PhD, was promoted to associate professor with tenure. Congratulations to Sparkes and Gilliland! We hope that they both continue to have long and productive careers here at DePaul.

We lost a wonderful colleague and friend in James Masken, PhD, last spring. A tribute to Jim is included in this issue of The Niche. I will miss talking with him about family, sports, science and educating our students. I am grateful that he was able to serve as a faculty member in our department for over 20 years.

We are very proud of our faculty, staff, students and alumni and we enjoy sharing our stories and keeping you up-to-date on the exciting changes in the department. I hope that you enjoy this issue and thank you for your continued support. ▣

John Dean

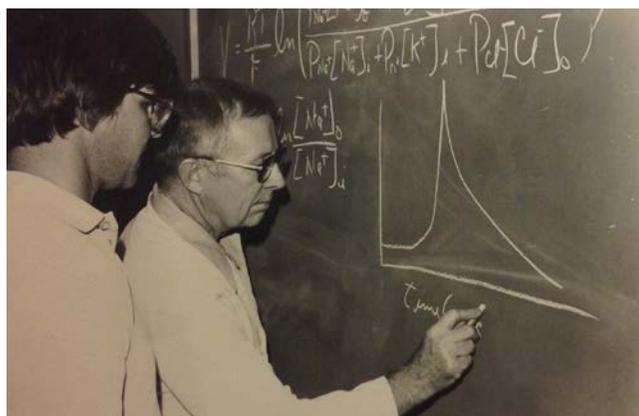
Professor and Chair of Biological Sciences

TRIBUTE TO JAMES MASKEN, PhD

The Department of Biological Sciences mourns the death of James Masken, PhD, a long-time adjunct professor, a professor emeritus from Colorado State University, and a great friend to the department, who recently died at the age of 88. After graduation from NYU with the help of the GI Bill, he went on to get his PhD from Colorado State University where he was a professor of physiology for 34 years. After relocating to Chicago, was an adjunct professor in our department for almost 22 years. He used to joke that he was teaching with us for almost as long as he taught for CSU. A passionate and dedicated teacher, he taught many of the fundamental courses in physiology for students interested in the health or veterinary professions, such as anatomy, histology, toxicology, pharmacology and endocrinology. His courses were especially known for their rigor and attracted a large number of students. He was an educator that truly fit in to the DePaul style, showing deep interest in each student that crossed his path, both in their academic studies and in their growth as individuals. He also served as a caring and enthusiastic advisor for many students, particularly for students interested in going to veterinary school due to his experiences at CSU, one of the foremost veterinary schools in the country. He took great pride in all of the successes of his students as they progressed in their fields, many to professional schools. He had a deep love for his family, and made annual trips around the country to visit his three daughters and all their families including his six grandchildren. He loved the mountains of Colorado, especially in the fall, and greatly enjoyed Dixieland jazz and playing his saxophone. Masken was an avid baseball fan and could often be found sitting with students in the McGowan lounge discussing the current season or sharing his stories of his years as a catcher in college. Masken was awarded the Via Sapientiae award posthumously at the 2015 college graduation ceremony. Masken's contributions to the Department of Biological Sciences were profound. His colleagues and his students will miss him dearly. His obituary can be found at: legacy.com/obituaries/chicagotribune/obituary.aspx?pid=174655082. ■



DR. JAMES MASKEN



Masken explaining the nature of nerve cell activity to a student during his time at Colorado State University.

BIOLOGY SENIOR AWARDS AND SYMPOSIUM

In 2015 the Department of Biological Sciences proudly presented an award for our outstanding graduating senior, as well as acknowledged several other seniors with Departmental Appreciation Awards for their great contributions.

KATELYN CARLSON—OUTSTANDING SENIOR



Windsor Aguirre, PhD, presents Katelyn with the Outstanding Senior Award

Katie worked in the Aguirre Lab as a research assistant and lab manager, and will be co-author of a manuscript based on a summer project at Rosalind Franklin University. A student known for being generous with her time and efforts, Katie has volunteered at the Ann & Robert H. Lurie Children's Hospital and Nationwide Children's Hospital, participated in a service trip to Guatemala, and served on the GlobeMed Executive Board. She also was a member of the DePaul Activities Board, Invisible

Children at DePaul and Phi Alpha Theta History Honors Society. She recently began work as a scribe while applying to medical school.

In addition to the Outstanding Senior Award, the department presented three senior students with departmental Senior Appreciation Awards. The three winners of this award for 2015 are:

ALEXANDER HADDAD

A self-motivated learner, Alex will graduate after only three years at DePaul. He has an analytical mind and a contagious optimism about the possibilities of research. Alex earned a URAP to support research in the Connolly Lab, presented at CAURS and the DePaul Showcase, and was a co-author on work presented at national meetings. President of the Pre-health Career Community, Alex has shadowed physicians and performed community service at multiple medical centers.

REBECCA URSIN

Rebecca demonstrated impressive aptitude, responsibility and discipline in managing an independent project in the Kipp Lab. Her results were published in DePaul Discoveries, and she received high praise for presentations at local and regional meetings. Rebecca was awarded both USRP and URAP research grants. She also is a talented athlete and valued member of the Women's soccer team.



PHOTO GALLERY

MARICELA RODRIGUEZ

Maricela made significant contributions to her capstone and estuarine biology field courses. She is a leader and team player who challenged her peers to get the most out of their class experience, and also was a valued teaching assistant for biostatistics.

Congratulations to Katelyn, Alex, Rebecca and Maricela on their awards. The department gives its sincere thanks to them for all their work on behalf of the department and the students. ■



From left to right: Katelyn Carlson, Maricela Rodriguez, Rebecca Ursin and Alexander Haddad

OTHER UNDERGRADUATE AWARDS

2015 Illinois Louis Stokes Alliance for Minority Participation (II LSAMP) Spring Symposium and Research Conference in STEM

Four DePaul Biology students received top honors for oral and poster presentations in biology and chemistry. A list of the students and their awards is below.

DANIELLE ARAIZA, Health Sciences/Biology
First Place, Biological Sciences Oral Presentation

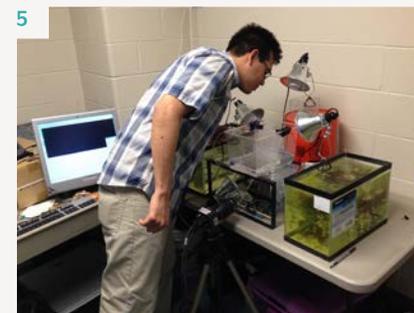
ERICA VALDEZ, Biology
Second Place, Biological Sciences Oral Presentation

JOSHUA SMITH, Biology
First Place, Chemistry Poster Presentation

DARCY VELAZQUEZ, Chemistry
STEPHANIE PACHECO, Biology
Second Place, Chemistry Poster Presentation

The Chicago Area Undergraduate Research Symposium (CAURS)

Students **JOSHUA SMITH**, biology, and **REALINO B. GURDIEL III**, biology, served as DePaul student reps to the 2014-2015 Inter-School Board, and many DePaul students and mentoring faculty participated in the 2015 symposium.



1. Biology took home the annual Cross-McGowan Classic softball game with a victorious score of 19-15 over chemistry.
2. Professor Martineau presents senior, Katelyn Carlson, with the Senior Appreciation Award.
3. Senior Rebecca Ursin and Graduate Assistant Sarah Persaud pose with Professor Kipp at the 2015 commencement.

4. Toews from Cornell University presents at Darwin Day, and is presented with his very own Toews Blackhawks shirt.
5. Recently Daniel Reyes successfully defended his graduate thesis on effects of temperature and water flow on morphology in *Astyanax Mexicanus*.
6. Amanda Mahoney, departmental assistant, celebrates the holiday party, and was recently awarded the Staff Recognition Award.

FACULTY PROMOTION TENURE AND DISTINGUISH SERVICE AWARDS

The Department of Biological Sciences is very excited to share two recent promotions and thrilled to honor four individuals with Distinguish Service Awards to DePaul. **WILLIAM GILLILAND, PhD**, was promoted to associate professor with tenure and **TIMOTHY SPARKES, PhD**, was promoted to full professor. In addition to Sparkes' promotion, he, **DOROTHY KOZLOWSKI, PhD**, and departmental assistant, **TELESIA JONES**, were all recognized for 15 years of service. **JASON BYSTRIANSKY, PhD**, also was recognized for five years of service to DePaul. We are proud of the accomplishments of our faculty and staff and thank them for their continued commitment to the Department of Biological Sciences and DePaul University.

NEW ADDITIONS TO THE BIOLOGY DEPARTMENT



Carolyn Martineau, PhD, and partner Michael Martineau happily welcome the early arrival of their twins.

“Biology is a science of surprises, and our Allison and Evelyn were no exception. They were so excited to arrive that they broke out seven weeks early, weighing in at just under 4 pounds each. After one year on a steady diet of hugs, they’ve more than quintupled in size and continue to surprise Michael and me daily. We celebrated their first successful trip around the sun with a family hiking trip to Zion National Park and the requisite cupcake demolition for an audience of family from Michigan to New York. Allison loves eating anything with lots of carbs, playing peek-a-boo and climbing the stairs. Evelyn adores playground swings, gardening (aka pulling up handfuls of grass) and having her belly button tickled. Both are huge fans of live music and can be seen dancing and playing maracas with Mr. Singer at the Farm at the Zoo every Wednesday. We are blessed.” – Carolyn Martineau, PhD

Congratulations Carolyn and Michael, and welcome to the world Allison and Evelyn, we are overjoyed to have you a part of our Department of Biological Sciences family.

DARWIN DAY SPEAKER

This past year we celebrated what would have been Charles Darwin's 205th birthday. In recognition of Darwin Day, a cake was made to honor him. The biology department was also lucky enough to have guest speaker, David Toews, PhD, from Cornell University Department of Ecology and Evolutionary Biology Ornithology Lab join us. Toews presented on the genomic consequences of divergence and hybridization in a migratory bird. Darwin Day was a success and another thanks is in order to Toews who helped make Darwin's 205th birthday a memorable one.



Aguirre presents Toews with the Darwin Day Award.

ALUMNI SHARING KNOWLEDGE (ASK)

DePaul Alumni Sharing Knowledge (ASK) is a network of alumni and friends who serve as career mentors, working with students one-on-one, in practice interviews and at job fairs, and speaking at networking events and open houses throughout the university.

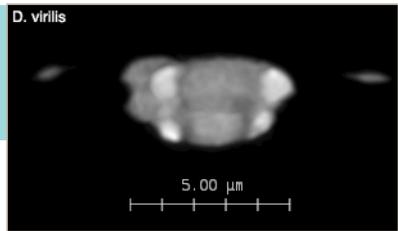
Want to be an ASK mentor? Join the volunteer network of over 1,000 alumni and friends of DePaul offering career guidance to our students and alumni. Submit your request to become an ASK mentor here: bit.ly/NewASKMentorForm. ASK will follow up within three business days on the next steps.

Questions? [Contact us at \(312\) 362-8281](tel:3123628281) or ask@depaul.edu.

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RESEARCH IN ACTION



RESEARCH IN ACTION

Having separation issues? You're not the only one. William Gilliland, PhD's Lab is actively working to determine the mechanism by which chromosomes accurately separate during cell division, using *D. melanogaster*, the common fruit fly. The ability for chromosomes to accurately separate during meiosis (reproductive cell formation) is crucial to viable reproduction of an organism. Failure to separate accurately, nondisjunction, is the number one cause of human birth defects, leading to conditions like Down syndrome, Turner syndrome and many miscarriages. His lab is collaborating with Daniel Barbash, PhD's lab at Cornell University, using another fly *D. simulans*, to help determine the genetic mechanisms causing groups of organisms to split into two independent species. Gilliland and his students (Eileen Colwell and David Osiecki) looked at how a small single chromosome from *D. simulans* put into *D. melanogaster* (the "dot" in the picture is a small chromosome from an even more ancestrally related fly, *D. virilis*) behaved in female meiosis. Normally, chromosomes must exchange genetic material to accurately separate during meiosis. Gilliland's Lab is beginning to find that even though these "dot" chromosomes do not exchange genetic information, they still remain attached to each other using some of their DNA, at a separation distance related to the amount of heterochromatin (non-coding DNA) in the chromosome. Such studies provide exciting information on both the process of meiotic cell division and the genetic methods and constraints allowing closely related populations to become separate species. More information on this work is in Gilliland's genetics paper at: genetics.org/content/199/1/73.full.pdf+html. □