## DEPAUL UNIVERSITY COLLEGE OF SCIENCE AND

THE BEACON (((a))

**UPDATES FROM THE DEAN** 

## **COLLEGE OF**

## SPRING 2019 NEWSLETTER



#### DOROTHY KOZLOWSKI, PH.D. INTERIM DEAN AND VINCENT DEPAUL PROFESSOR OF **BIOLOGICAL SCIENCES**

Photo credit: ©Tom Evans

### NOTE FROM THE DEAN

Our college continues to excel in embracing the teacher-scholar model and providing our students opportunities to become engaged as scholars. In this issue are numerous examples of how faculty have provided students the opportunity to engage in their research, attend conferences, compete in academic competitions and combine research with service. To me, this is what makes our college special and sets us apart from our competitors.

This couldn't happen without dedicated faculty and staff in our college, many of whom we celebrated this year for their decades of service to DePaul, for their promotion and tenure, and for their research accomplishments. Lastly, thank you to those faculty who we celebrated as they retired from the University. They will be missed, but their legacy will live on in all the ways they contributed to our curriculum, our students, our scholarship, and our CSH community.

I look forward to the new academic year ahead and for the opportunity to continue to marvel in all our accomplishments!

Welcome Spring Highlights Excellence in <u>Research</u> recognition

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Best,

Dorothy

## COLLEGE OF SCIENCE AND HEALTH ADVISORY COUNCIL PANEL DISCUSSION AND NETWORKING EVENT



## PARTICIPANTS



LINDA DEGUTIS, DrPH, MSN Director of Defense Health Horizons



DR. JAMES S. BURNS, MBA Former Chairman of AssureRX Health Inc



THERESE A. FITZPATRICK, PHD Senior Vice President at Kaufman Hall & Associates



STEVEN JOHNSON, MS Chief Operating Officer of Potrero Biosciences (Senior Manager (retired), Amgen

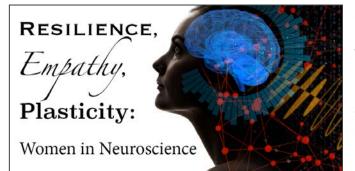


MAX ZELDIN, FSA, MAAA Life Pricing Actuary

## CSHAC

The College of Science and Health Advisory Council (CSHAC) is a volunteer assembly of CSH alumni and friends who contribute professional and experiential knowledge, as well as, financial support to enhance the college. At this event, members of the CSHAC shared their expertise with students interested in a range of careers. The panel fielded questions and met individually with CSH

#### Resilience, Empathy, and Plasticity: CSH Hosts Women in Neuroscience Event



On February 28<sup>th</sup> the College of Science and Health, in partnership with the Chicago Council on Science and Technology (C2ST) and the Society for Neuroscience Undergraduates of Chicago (SNUC), hosted "Resilience, Empathy, Plasticity: Women in Neuroscience," a special event featuring presentations and a Q&A with three of the leading women working in the field of neuroscience.

Resilience, empathy, and plasticity are important parts of the human experience, but how do these traits actually emerge biologically? Renowned scientists **Dorothy Kozlowski, Ph.D.** of DePaul University, **Peggy Mason, Ph.D.** of the University of Chicago, and **Janice Urban, Ph.D.** of Rosalind Franklin University came together to discuss how their groundbreaking work in neuroscience seeks to answer this question. Dr. Mason's presentation focused on the biology of empathy and helping behavior in rats; Dr. Kozlowski discussed the incredible ability of the brain to repair itself following traumatic injury; and Dr. Urban presented research on how the brain develops a stress response and resilience.

Following the presentations, Associate Dean of Research and Faculty Development **Susan D. McMahon, Ph.D.** moderated a discussion with the panel on their research and their experiences as women working in the field of neuroscience.





MISSED THE EVENT?

<u>VIDEO</u> OF THE FULL PROGRAM IS AVAILABLE ON C2ST'S YOUTUBE CHANNEL

#### Physics Students Attend Conference for Undergraduate Women in Physics



To kick off 2019, **Aaila Ali**, **Devin Becker**, **Sophia Lasky-Hedrick**, **Zeph Kaffey**, **Megan Mikota**, and **Samantha Smiley** braved the polar vortex and a severe Chicago snowstorm to represent DePaul at the American Physical Society's Conference for Undergraduate Women in Physics (CUWiP) at Northwestern University on January 18 – 20, 2019.

The primary goal of the conference is to help undergraduate women continue in the field of physics by providing them with the opportunity to experience a professional conference, gain information about graduate school and professions in physics, and share ideas and advice with other women in physics.

In addition to attending the conference, Aaila and Megan served as panelists at two breakout sessions. Aaila participated in the "Boosting Your Career with Undergraduate Opportunities / How to Succeed in Undergrad" panel, while Megan sat on the "Graduate School Life" panel.

#### Math and Data Science Undergraduates Compete at ASA DataFest

At the end of March, four CSH undergraduate Mathematics and Data Science majors participated in the ASA DataFest at Loyola University. DePaul's team, ANOVA-caine, included students Harry Gollakota, Nipah Onkananuwonk, Johnathon Frey, and Sarah Mikho. Leading the team was Assistant Professor Philip Yates, Ph.D.

DataFest is a data "hackathon" for students, founded at UCLA in 2011 to motivate a data-analysis class project,



which makes data analysis more fun and meaningful while incentivizing good scientific practice and presentation. The event also provides the opportunity for participants



to network with data science professionals and to meet students from other colleges and universities. Now sponsored by the American Statistical

Association, ASA DataFest is run through several host institutions across the country.

The team competed in all three featured conference categories and received votes in the category of Best Insight. ASA DataFest also awarded prizes for Best Data Visualization and Best Use of External Data.

#### Public Health Scholar Bowl Team Competes in St. Louis



For the third year in a row, the Department of Health Sciences' Public Health Scholar Bowl team competed in the St. Louis University Public Health Scholar Bowl. The Public Health Scholar Bowl is a chance for burgeoning public health leaders to connect with their peers from 15 different universities and compete to win up to \$1,000 in the Quiz Bowl and Case Study competitions.

DePaul's team, Lakerrie Forrest, Nyierra Golden, Alexandra Goodman, Ema Mujic, Claire Newby, and Jessie Rosario-Wynn, had another successful trip to the Scholar Bowl, winning two of their three head-to-head competitions. Although they did not make it to the final four based on total points, they represented DePaul in an exemplary way.

The team was led by **Michele McCay**, **MPH**, **DrPH** and **L**. **Cricel Molina de Mesa**, **Ph.D**., **MPH**. Congratulations to the Public Health Scholar Bowl team!



#### Psychology Alumnus speaks at NASA

2016 DePaul I-O PhD graduate Dr. Shanique Brown gave a keynote address at Marshall Space Flight Center as part of their Black History Month program. She spoke about diversity and inclusion in preparation for mission to Mars. Dr. Brown is currently an assistant professor at Wayne State University. Her research focuses on judgement, decision-making, and team effectiveness.



Nineteen DePaul CSH students participated in the 2019 Midwest Ecology and Evolution Conference in Indiana

DePaul University showed strong presence at the annual Midwest Ecology and Evolution Conference (MEEC) held at Indiana State University in Terre Haute, Indiana, on April 26–28, 2019. Nineteen students from two departments in the College of Science and Health (CSH), Environmental Science and Studies and Biological Sciences departments participated in the scientific meeting, including seventeen student-led oral and poster presentations reporting their scientific discoveries.



Photo Courtesy of Riley Hacker

The participants consisted of undergraduate and M.S. students belonging to Drs. Windsor Aguirre, Bala Chaudhary, Jalene LaMontagne, and Kenshu Shimada's laboratories in CSH. The students were: Amanda Alt, Luke Banta, Jessica Barton, Bre Connolly, Evan Cowles, Daniela Garza, Riley Hacker, Alexandra Krak, Andres Lafuente, Abby Leeper, Kayce Miller, Annalise Nordgren, Cecil Phibbs, Maria Jazmin Rios, Ashlyn Royce, Jillian Sterman, Phillip Sternes, Jessica Vaclav, and Nora Westman. "Scientific conferences are extremely important venues for young budding scientists not only to share and learn frontline research, but also to gain experience interacting with experts in the fields to expand their network," says Shimada, a professor of environmental science and studies and biology who organized the MEEC trip.

Topics of DePaul students' research presentations ranged broadly in the field of ecology and evolution. They include white spruce mast seeding, a boreal forest community, effects of insects on trees, bird populations, problem-solving performance of songbirds, racoon behavior, effects of free-roaming cats on rat populations, Andes mountain fishes, fossil fauna, extinct bony fish, and prehistoric shell-crushing shark, as well as skull, teeth, vertebrae, fins, musculature, and body shape diversity of modern sharks!

#### School of Nursing - Blessing of the Hands



The Blessing of the Hands is a hospital tradition practiced around the world. Because human touch is such an important component of health care, the blessing is especially meaningful to nurses. It provides a spiritual experience, symbolically linking the art and science of healthcare. The School of Nursing Rosalind Franklin Site hosted a Blessing of the Hands event celebrating our graduate nursing students during Nurses Week.

#### Psychology Department - Global Impact Service Project



Bernadette Sánchez, Ph.D. pictured (center) with students and staff from the Mariposa Center for Girls, traveled to the Dominican Republic to deliver several items collected by the Department of Psychology. The Mariposa Center for Girls empowers and educates girl ages 8 – 18+ as a solution to end generational poverty. Funding for this project was provide by the DePaul University Public Service Council.



#### Inaugural Health Science Colloquium

The department of Health Sciences offered its first ever colloquium delivered by Dr. Craig Klugman. Dr. Klugman is a renowned bioethicist and medical anthropologist who works on end-of-life issues, digital health, public health ethics, ethics pedagogy, and public engagement with bioethics. Millions of people are sending their DNA to commercial companies to learn about their family origins. But what happens to this data once the company has it? His talk, "23 and FBI and Me: The Ethics of Commercial DNA Testing and Law Enforcement," explored the history of commercial DNA and its dangers.



## Environmental Science and Studies Department – Annual Undergraduate research Symposium

Alicia Kirby - Soil and water lead concentrations compared to poverty and child blood lead levels in Chicago (Faculty mentor - James Montgomery)

**Emma Mares** - Synthesizing mycorrhizal traits-a focus on spore ornamentation (Faculty mentor - Bala Chaudhary)

**Annalise Nordgren** - Are they alive? Developing methods to determine viability of mycorrhizal fungal spores (Faculty mentor - Bala Chaudhary)

**Ashlyn Royce** - Arbuscular mycorrhizal inoculation shown to increase food quality: A meta analysis approach (Faculty mentor - Bala Chaudary)

**Nora Westman** - An analysis of the neurocranial morphology of shark families in relation to their ecology (Faculty mentor - Kenshu Shimada)



### THE OFFICE OF THE DEAN CELEBRATES STEVEN REESE & JESSICA HUGHES



Jessica Hughes (left) and Steven Reese (right) are pictures with Dean Kozlowski.



Jessica Hugh, a graduating senior in Health Sciences with a public health concentration, received the Office of the Dean student of the year award for her dedication and quality of service to the office. Jessica has accepted a full time position in the Berwyn North School District 98. Steven Reese has accepted a new position in a newly launched area of the university – Criminology.

Each has contributed much to the Dean's Office and both will be greatly missed.

### THE COLLEGE OF SCIENCE AND HEALTH CELEBRATED AND CONGRATULATED



Quinetta Shelby, Associate Professor in the College of Science and Health. Served as CSH Marshal and is shown carrying the Mace

## THE CLASS OF 2019



Brandon Isler, received a Bachelor of Science in Psychology degree and presented the student address on behalf of the class of 2019.



Dr. Alfredo Quinones-Hinojosa, the William and Charles Mayo Professor and Chair of the Department of Neurologic Surgery at the Mayo Clinic gave the commencement speech. Dr. Quinones-Hinojosa received the honorary degree, Doctor of Humane Letters.



#### 2019 Excellence in Research Award and Mid-Career Excellence in Research Award

Each year, the College of Science and Health recognizes faculty who have made significant scientific contributions in their area of research by bestowing the Excellence in Research Award and Mid-Career Excellence in Research Award. The Excellence in Research Award recognizes a Full Professor's outstanding contributions to the field over the course of their career, and the Mid-Career Excellence in Research Award acknowledges an Associate Professor's outstanding contributions to their field.

The recipients of the 2019 awards are **Ralph Erber**, **Ph.D.** and **Joseph Mikels**, **Ph.D**. The names of both award recipients will be engraved on a plaque displayed in the Dean's Suite and each will be invited to give a featured CSH research presentation.

#### Ralph Erber, Ph.D. - Excellence in Research Award



Dr. Ralph Erber, Professor of Psychological Science, joined DePaul in 1991. His theoretically grounded and methodologically rigorous research has substantially furthered knowledge in social psychology. His work has provided insight into psychological processes that come into play when we try to control our emotions and suppress unwanted thoughts. Dr. Erber's research has been published in journals including the *Journal of Personality and Social Psychology* and the *Journal of Experimental Social Psychology* and has been cited over 5,800 times according to Google Scholar. In addition, Dr. Erber has published a number of impactful books on research-based psychological knowledge. His textbook, *Intimate Relationships: Issues, Theories, and Research*, is in its 3<sup>rd</sup> edition, and his social psychology textbook, *Social Psychology: A Storytelling Approach*, is currently in its

2<sup>nd</sup> edition. His book, *Understanding Genocide: The Social Psychology of the Holocaust*, is a prime example of connecting social psychological science with highly relevant applied questions of our time. Throughout his career Dr. Erber has contributed to the field with interesting, original, thought provoking research, inspiring his colleagues, guiding his students and enriching the body of social psychological knowledge.

#### Joseph Mikels, Ph.D. - Mid-Career Excellence in Research Award



Dr. Joseph Mikels, Associate Professor of Psychological Science/Community Psychology and Director, Community Psychology Ph.D. Program, joined DePaul in 2010 and was promoted to Associate Professor in 2013. His research centers primarily on cognitive-emotional processes, especially across the adult life span. Specifically, Dr. Mikels examines how emotions impact memory and decision making. His innovative work combines laboratory and field research to investigate how emotions can impact working memory, decision-making, risk-taking, and health-related behaviors in younger and older adults. Dr. Mikels has secured over \$2.8 million in external funding for his research from agencies like the National Science Foundation and National Institute on Aging, and he currently has two grants under review. Dr. Mikels' scientific productivity and impact is further

illustrated by his authorship of 44 publications, including 37 peer-reviewed articles and 7 book chapters. His research is published in premier journals such as *Perspectives on Psychological Science* and *Psychology and Aging*, and his work has collectively been cited over 5,800 times according to Google Scholar.

## **COLLEGE OF SCIENCE AND HEALTH AWARDS, RECOGNITIONS & APPOINTMENTS**

#### Congratulations to the CSH Distinguished Service Award Recipients

The 31<sup>st</sup> Annual Distinguished Service Awards luncheon honored CSH faculty and staff for years of dedicated service to the university in several categories. Although none from CSH achieved the notable 50 years of service, Carolyn" Lynn" Narasimhan, PhD. came close with an amazing 40 years of service. Below list CSH Faculty and staff years of service representation by category.

#### 40 Years of Service

Carolyn Narasimhan, Professor and Director of the STEM Center

#### 30 Years of Service

Stanley A. Cohn, Professor, Cell Biology John V. Dean, Professor, Plant Biochemistry

#### 20 Years of Service

Kenshu Shimada, Professor, Paleobiology Kurtis Todd, Executive Assistant to the Dean Wendy S. Wolbach, Professor, Inorganic Chemistry, Geochemistry and Analytical Chemistry

ARTQU/Getty

#### 15 Years of Service

Suzanne Bell, Professor, Industrial & Organizational Psychology Jessica Choplin, Associate Professor, Psychological Science Linda A. Graf, Clinical Assistant Professor, Nursing Anuj Sarma, Associate Professor & Joint Engineering Program Coordinator Quinetta D. Shelby, Associate Professor, Inorganic Chemistry / Chair of Chemistry and Biochemistry Department

#### 10 Years of Service

Windsor Aguirre, Associate Professor, Evolutionary Biology
Joanna Deszcz, Instructor, Quantitative Reasoning
William Gilliland, Associate Professor, Genetics
Barbara Harris, Associate Director, Master's Entry to Nursing Practice Program& Assistant Professor, Nursing
Jingjing Kipp, Associate Professor, Reproductive Biology
T. Kyle Petersen, Professor, Combinatorics
Nicholas Ramsey, Associate Professor, Number Theory

## **COLLEGE OF SCIENCE AND HEALTH AWARDS, RECOGNITIONS & APPOINTMENTS**

## CONGRATULATION RETIRING FACULTY THANK YOU FOR YOUR YEARS OF SERVICE AND COMMITMENT TO THE COLLEGE



Douglas Cellar, PhD Associate Professor Department of Psychology



Stanley A. Cohn, PhD Professor, Cell Biology Department of Biological Sciences



Paula N. Kagan, PhD, RN Professor School of Nursing



Carolyn "Lynn" Narasimhan, PhD Professor Director of STEM Center and Chair of STEM Studies

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## **COLLEGE OF SCIENCE AND HEALTH AWARDS, RECOGNITIONS & APPOINTMENTS**



#### CONGRATULATION CSH FACULTY

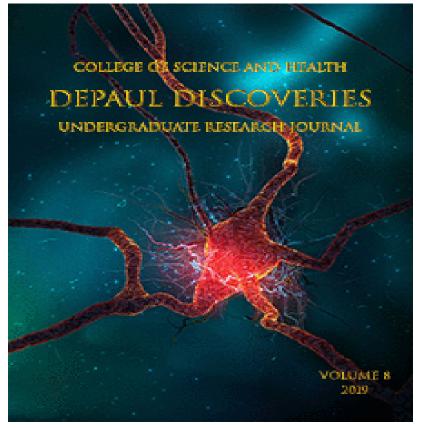


## RECEIVING TENURE AND PROMOTED TO ASSOCIATE PROFESSOR RANK

Timothy French, Chemistry and Biochemistry Kyle Grice, Chemistry and Biochemistry Paul Vadola, Chemistry and Biochemistry Christie Klimas, Environmental Science and Studies Jessica Jerome, Health Sciences Juan Hu, Mathematical Sciences Barbara Harris, Nursing Mary Bridget, Physics Megan Greeson, Psychology

#### PROMOTED TO THE RANK OF (FULL) PROFESSOR

Jessica Choplin, to professor of psychology Joseph Mikels, to professor of psychology Antonio Polo, to professor of psychology



DePaul Discoveries is a scholarly journal published annually by the DePaul University College of Science and Health. DePaul Discoveries provides a forum for sharing original research in a peer-reviewed, professional-level, open-access academic journal. This journal serves as a vehicle for undergraduate students in the DePaul University College of Science and Health (CSH) to share their work with the world and learn about the review and publication process so essential to their professional disciplines. Following are the contributors to DePaul Discoveries Vol. 8 Issue 1 (2019). https://via.library.depaul.edu/depaul-disc/

Becker, Devin (2019). "Hierarchical Structure Formation in the SDSS eBOSSLy-alpha Forests," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 2. Faculty Mentor: Jesus Pando.

Clarisse, Nicolas and Sarma, Anuj P. (2019). "Methanol Masers in Star-Forming Regions," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 3. Faculty Mentor: Anuj P. Sarma.

Clarisse, Nicolas and Sarma, Anuj P. (2019). "Methanol Masers in Star-Forming Regions," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 3. Faculty Mentor: Anuj P. Sarma.

Mota, Tholang (2019). "The Magnetic Activity of Low-Mass Stars," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 4. Faculty Mentor: Bernhard Beck-Winchatz.

Piwowarczyk, Maciej (2019). "The Mystery of Frobenius Symmetry," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 5. Faculty Mentor: David Sher.

Fernandez, Jessica and Klimas, Christie (2019). "A Life Cycle Assessment of Jewelry," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 6. Faculty Mentor: Christie Klimas.



Robertson, Madeline R. and Klimas, Christie (2019). "A Playful Life Cycle Assessment of the Environmental Impact of Children's Toys," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 7. Faculty Mentor: Christie Klimas.

Valencia, Carmen (2019). "Comparing Carapa guianensis Seed Production in 3 Amazonian Forests," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 8. Faculty Mentor: Christie Klimas.

Olesak, Daniel (2019). "Wavenumber-Dependent Complex Refractive Indices of Synthetic Motor Oil by Aerosol Extinction Spectra," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 9. Faculty Mentor: Richard F. Niedziela.

Wat, Jacob H. and Griffin, Graham (2019). "Extrapolating the Excitation Energy of Polythiophene from Thiophene Oligomers," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 10. Faculty Mentor: Griffin Graham.

Martin, Armand; Manriquez, Ben; Pompa, Christian; Saper, Aaron; Grice, Kyle A.; and Bystriansky, Jason (2019). "On the Composistion of Cymodocea nodosa Root Exudate Under artificial Blue, Green and Natural Light Conditions," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 11. Faculty Mentors : Kyle Grice, Jason Bystriansky.

McEnaney, Regan A. (2019). "Effects of reduced pH on health biomarkers of the seagrass Cymodoceanodosa," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 12. Faculty Mentors: Kyle Grice, Jason Bystriansky.

Pride, Rachel and Wagner, Ashley (2019). "Behavioral Responses to Gold Nanoparticle Exposure and H2O2 Induced Oxidative Stress in Caenorhabditis elegans," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 13. Faculty Mentors: Kyle Grice, Jason Bystriansky.

Sterman, Jillian; Barton, Jessica; Delmedico, Panagiota; and Sweeney, Samantha (2019). "Sex-specific Personalities in the Purple Marsh Crab," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 14. Faculty Mentor: Timothy Sparkes.

Parisi, Elli D. R. (2019). "A Systematic Review and Analysis of Racial Differences in Treatment for Depression," *DePaul Discoveries*: Vol. 8: Iss. 1, Article 15. Faculty Mentor: L. Cricel Molina.

#### **New External Grants**



Bala Chaudhary, PhD was awarded a \$715,052 National Science Foundation Career Award for her project *Linking macroecology and traits to predict mycorrhizal fungal dispersal* 

Plant performance is a function of the plant microbiome. Because the outcome of plant-microbe interactions is often taxon specific, understanding the factors that influence microbial community structure across scales is pivotal to understanding functioning in most ecosystems on Earth. For macroorganisms, the crucial role of dispersal in metapopulations and species distributions is undebated. Yet, for microbes, dispersal remains a missing piece of the puzzle in our understanding of the mechanisms that generate patterns in microbial biogeography.



Joseph Mikles, PhD was awarded \$424,587 from the National Institutes for Health for his two-year project Aging, Emotion Regulation, and Stress

Stress is a common part of daily life, and our ability to regulate our emotions in stressful situations heavily determines our well-being and health. Importantly, emotion regulatory abilities generally improve with age, and relative to earlier parts of the life span, later life is characterized by shifts toward positivity; everyday emotional experience is on the whole filled with less negativity, and the processing of emotional information shifts toward the positive. Although age-related emotional strengths in later life can improve our responses to some types of stressors (e.g., interpersonal conflict), age-related vulnerabilities may compromise the ability to regulate emotions in other contexts. This project aims to understand situations under which older adults might non-optimally react to and ineffectively regulate stress, and how to utilize their strengths to mitigate emotional dysregulation under stress.

Community Mental Health Board of Oak Park Township awarded **Orson Morrison**, PsyD, Director of DePaul Family and Community Services (FCS), a grant for the project *"Mindful Middle-Schoolers : Resiliency Skills for Anxiety, Depression and Executive Functioning"* 

The Mindful Middle-Schoolers Program is designed address the mental health needs of 6th through 8th grade students and families and to strengthen the caregiving system around them. Workshops that will be offered include: Mindfulness Approaches to Managing Emotions, Recognizing and Responding to Youth Mental Health Challenges, and Technology and Mental Health/Executive Functioning.

Associate Professor and Department Chair of Environmental Science and Studies, **Mark Potosnak** received a grant from U.S. Department of Energy for "*Embedded Sensing and Data Analytics via Edge Computing*"

Argonne National Laboratory and Exelon have a Cooperative Research and Development Agreement to foster joint research efforts. DePaul will help Argonne and Exelon used new advanced sensors and machine learning algorithms to explore hyper-local air quality and energy-related measurements to improve our understanding of electrification and augment local grid usage data provided to consumers.

Associate Professor and Chair of Physics and Astrophysics, **Jesus Pando** received a grant form Astrophysical Research Consortium/SDSS to support his role of *Faculty and Student Team (FAST)* faculty liaison within the SDSS-IV collaboration.



The Astrophysical Research Consortium (ARC) owns and manages the Apache Point Observatory (APO) located in Sunspot, NM for its member institutions. RC has three research telescopes at APO: the 3.5m Telescope, the 2.5m Sloan Foundation Telescope and the 0.5m Small Aperture Telescope (ARCSAT). ARC also hosts New Mexico State University's 1.0m Telescope.

The Sloan Digital Sky Survey (SDSS) creates detailed three-dimensional maps of the Universe, with deep multicolor images of one third of the sky, and spectra for more than three million astronomical objects. The Astrophysical Research Consortium manages SDSS. Alanna Mertens, Math Coach in the STEM Center, received a grant from Chicago Board of Education. The grant will support the "Bronzeville Classical Elementary: Math Professional Development for Chicago Public Schools" project.

This project will build and expand teacher capacity at Bronzeville Classical Elementary to provide powerful mathematics instruction grounded in the Teaching for Robust Understanding of Math (TRU Math) Dimensions and in alignment with the Common Core State Standards for Mathematics (CCSSM) and district priorities, with an emphasis on collaborative practice.

Associate Professor and Interim Director of STEM Studies, **David Jabon**, received a grant for "Expanding the Impact of the Elementary Math Specialist Program" from the CME Group Foundation

This grant will continue and expand the Elementary Math Specialist Program, designed to provide elementary school teachers with the knowledge, confidence, and tools to reaching mathematics to young children. This grant also continues the collaborative work, in partnership with the Department of STEM in the Chicago Public Schools, the University of Illinois at Chicago, and the University of Chicago.

National Science Foundation awarded Associate Professor, **Jalene LaMontagne** and her team a grant for "The influence of climatic dipoles on plant and animal populations at continental scales"

PI Jalene LaMontagne will oversee the DePaul component of the project and will supervise students. She will design and supervise the field collection of mast seeding data at National Ecological Observatory Network (NEON) sites across the continental USA, update the masting database, be the lead on spatial synchrony analyses, serve as academic advisor for one DePaul graduate student (MS) and undergraduate summer assistants, and will prepare manuscripts on the final project outcomes.

**Professor of Clinical Psychology Antonio Polo** received a grant from the Chicago board of Education for his project, "Task Order for Social Emotional Learning Services Act."

This project will evaluate and report on the level of risk for depression for youth identified and assessed by CPS school staff (e.g., social worker, school psychologist, counselor) to help identify potentially eligible group members in support of the Act & Adapt program. The project will also evaluate the results of the assessments conducted by CPS school staff with students enrolled in the Act & Adapt program after the program is completed.

The Association of Catholic Colleges and Universities awarded Associate Professor and Department Chair of Environmental Science and Studies, **Mark Potosnak** a grant for "Laudato si weekend retreat for students, staff and faculty from Chicago-area Catholic universities"

Nearly four years after the release of Pope Francis' encyclical on consumerism, irresponsible development, and environmental degradation, This project will lead a weekend retreat devoted to building awareness and understanding of Pope Francis' encyclical on consumerism, irresponsible development, and environmental degradation for uniting Catholic universities.

#### 2019 Faculty Summer Research Grants

The Faculty Summer Research Grant (FSRG) program is designed to support ongoing research, to give faculty members an opportunity to develop new areas of research, and to help faculty become more competitive for external awards. Recommendations are made by the CSH's Research and Faculty Development committee, which is comprised of faculty nominated by their home academic units and appointed by the dean.

Congratulations to this year's FSRG recipients who will be conducting the following research this summer:

#### Margaret Bell, Ph.D.

Department of Biological Sciences Effects of an environmental contaminant (PCBs) on neuroimmune cells in vitro

Molly Brown, Ph.D. Department of Psychology

Case study of coordinated entry implementation in King County, WA

#### Joanna Buscemi, Ph.D

Department of Psychology Identifying predictors of National School Lunch Program participation in Chicago public high schools

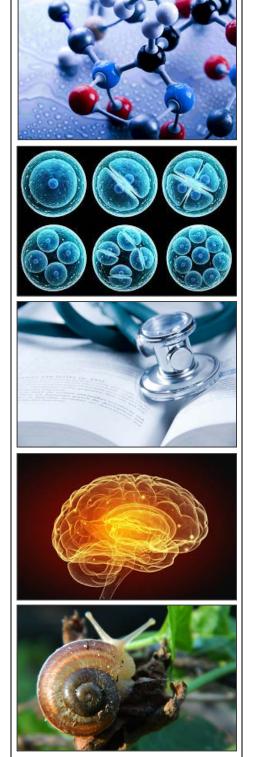
Stefan Catoiu, Ph.D.

Department of Mathematical Sciences Area computation and the classification of triangular deltoids

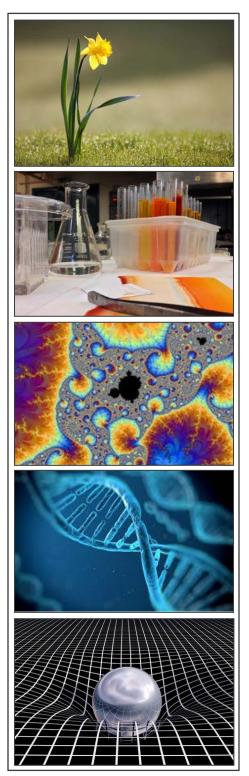
John Dean, Ph.D. Department of Biological Sciences Vacuolar flavonoid transport by AtABCC2 mutants of Arabidopsis

Christopher Drupieski, Ph.D. Department of Mathematical Sciences Representations of supergroups

Kyle Grice, Ph.D. Department of Chemistry & Biochemistry New ligand platforms for homogeneous CO2 reduction catalysts



#### 2019 Faculty Summer Research Grants



#### Caitlin Karver, Ph.D.

Department of Chemistry & Biochemistry Development of selective FRET-based substrates for monitoring inflammatory caspases

Yevgenia Kashina, Ph.D. Department of Mathematical Sciences Extensions of Yetter-Drinfeld Hopf algebras

**Christie Klimas, Ph.D.** – Department of Environmental Science & Studies Determining traits of Carapa guianensis seed production in three regions of the Brazilian Amazon

Karl Liechty, Ph.D. – Department of Mathematical Sciences Transitions from random matrix to classical statistics

Julia Lippert, Ph.D. Department of Health Sciences Occupational health and safety in restaurant and food service work: A state-of-the-science review of hazards, contributing factors, and control

Kyle Petersen, Ph.D. Department of Mathematical Sciences Random combinatorial models

Anne Saw, Ph.D. Department of Psychology Betel quid and cigarette use among Burmese refugees

Paul Vadola, Ph.D. Department of Chemistry & Biochemistry A new approach to the synthesis of medicinally relevant 1,2,3,4tetrahydroisoquinolines

## COLLEGE OF SCIENCE AND HEALTH - UPCOMING EVENTS AND CALENDAR

September 5	Annual Academic Convocation, St. Vincent de Paul Church, 10:30am
September 10	New Freshman & Transfer Student Convocation, Wintrust Arena, 10:00am
October 1	Graduate Research Fund 9GRF) application due
October 4	CSH Autumn Quarter College Meeting 12:00 – 2:00 p.m.
November 1	2020 Faculty Summer Research Grant (FSRG) applications due
November 8	Annual DePaul Science and Mathematics Undergraduate Research Showcase

If you have an idea for features, honors, awards, events, and/or news items that you would like considered, please send them to CSHDean@depaul.edu, or contact the CSH Newsletter Publication Editors Kurtis Todd and Susan McMahon.

## Thank you to all contributors and to the Office of the Dean staff for your work on this newsletter!



# DEPAUL UNIVERSITY COLLEGE OF SCIENCE AND

HEALTH

Spring 2019 Newsletter