College of Science & Health
2016 Annual Report
CSH Annual Report 2016

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Letter from the Dean

A Letter from Gerald P. Koocher, PhD, ABPP

The College of Science and Health Annual Report provides an important archival chronicle of our accomplishments for calendar 2016. Since our founding only a few years ago, the college has continued to grow at a remarkable pace. As Dean, I feel honored to work alongside a remarkably gifted and committed group of faculty and staff, whose dedication and skill is reflected in a strong record of scholarly productivity and in the accomplishments of our students. Although the report notes successes of each department and center in the college, I take special pride in calling out our new science study abroad courses and the success of our neuroscience program.

As I write these words, months into 2017, I can tell you with enthusiastic anticipation that our results for 2017 will prove equally remarkable. We owe special thanks in compilation and design of this report to Associate Dean Susan McMahon and Amanda Copeland, Business Coordinator.
The College of Science and Health 2016 Leadership

The College of Science and Health is comprised of eight departments and schools and five centers.

**Dean’s Office Leadership**

Gerald P. Koocher, PhD, ABPP  Dean of the College of Science and Health
Phillip E. Funk, PhD  Associate Dean for External Relations
Richard F. Niedziela, PhD  Associate Dean for Administration
Susan D. McMahon, PhD  Associate Dean for Research & Faculty Development
Margaret E. Silliker, PhD  Associate Dean for Graduate Studies
Karen Reinbold  Assistant Dean for Finance and Budget
Michael Roberts  Assistant Dean for Academic Services

**Departments and Centers**

Biological Sciences  Chair John Dean, PhD
Chemistry  Chair Lihua Jin, PhD
Environmental Science & Studies  Chair Liam Heneghan, PhD
Health Sciences  Chair Jim Montgomery, PhD
Mathematical Sciences  Chair Ahmed Zayed, PhD
Physics  Chair Jesus Pando, PhD
Psychology  Chair Alice Stuhlmacher, PhD
School of Nursing  Director Matthew Sorenson, PhD, APN, ANP-C
STEM Studies  Director Lynn Narasimhan, PhD
Quantitative Reasoning Center  Director David Jabon, PhD
Center for Community Research  Director Leonard Jason, PhD
Family & Community Services  Director Orson Morrison, PsyD
Institute for Nature and Culture  Director Liam Heneghan, PhD
College of Science and Health Advisory Council

The CSH Advisory Council, a group comprised of science and health professionals, is committed to the goal of educating students to the highest standards. Advisory Council members provide guidance and expertise to the college, including current insight on working in the natural sciences, mathematics, psychology, nursing, and health science fields.

Many thanks to the 2016 College of Science and Health Advisory Council Members:

**Therese Fitzpatrick, Ph.D., R.N.**  
BS NSG ‘75/MS NSG ‘84  
Assistant Professor  
University of Illinois- Chicago  
College of Nursing

**Maksim Zeldin, FSA, MAAA**  
CSH ‘07  
Senior Actuarial Associate  
Allstate Insurance Co.

**James S. Burns**  
MBA ‘73  
President & CEO  
Assurex Health

**Linda C. Degutis, DrPH, MSN**  
CSH ‘75  
Consultant

**Nancy L. Jones, MD**  
CSH ‘74  
Professor of Pathology  
Chicago Medical School

**Steven Johnson**  
CSH ‘77 Physics & Mathematics  
Consultant

**Maria Kuzas, RN, MS, CHPN**  
Ethics Commissioner, State of Illinois

**Thomas J. Murphy, Ph.D.**  
Emeritus Professor of Chemistry  
DePaul University

**Stephen Sichak, Jr.**  
CSH ‘78 / MS, CHS ‘80  
Sr. Vice President, Becton Dickinson

**Katherine J. Kim**  
MS, CSH ‘97 / JD ‘04  
Principal, Molecule Law
Mission

The College of Science and Health at DePaul University provides high quality, personalized, and accessible science and health education to a diverse student body, grounded in the values of St. Vincent de Paul. Our teaching and research advance knowledge in service to society.

Vision

We aspire to be a leading urban college of science and health with an inclusive environment that supports diverse people and ideas:

- Delivering rigorous and relevant science and health education programs
- Assuring every student with an emphasis in the sciences an authentic research experience
- Providing every student with an emphasis in health with an understanding of health disparities and best practices to address and advance health care in a global society
- Affording every student an opportunity to reinforce their learning through internships and community engagement
- Providing every student support in exploring and achieving their professional and career goals
- Supporting a faculty of inspiring, effective and innovative teachers
- Sustaining a faculty with the resources to produce impactful scholarship and become thought leaders in their field
- Encouraging faculty to share their knowledge and skills with the local and global community
Psychology faculty, Drs. Yan Li and Karen Budd and 15 DePaul undergraduate students traveled to China for a short-term study abroad program in the winter break of 2016. This is the second time they have led the Psychology in Contemporary China study abroad program. This program is designed to provide a structured international experience for DePaul students interested in cross-cultural applications of psychology. This course focuses on deepening students’ awareness of how individuals’ behavioral, social, cognitive, and emotional experiences are shaped by culture. China is chosen as the site for the program because of its international and historic significance and the distinct cultural experiences that it brings to students. The field of psychology has grown substantially in China over the past 20 years, providing several opportunities for students to interact with and learn about psychology in academic, research, and applied contexts.

Students in this program participated in pre-trip lectures, international travel, and post-trip reflection sessions as part of two university courses. In addition, they conducted research projects and reported on their findings after returning to Chicago. Students visited three universities, including Peking University, Weifang Medical University, and the Chinese University of Hong Kong, and they attended five guest lectures given by leading psychology researchers from these universities. Both program directors, Drs. Yan Li and Karen Budd, gave research talks at Weifang Medical University to students from both universities. Our students met with local students in these universities, where they had an opportunity to interview and administer surveys on their individual research topics and to converse informally with Chinese students. It was striking to see how quickly and enthusiastically the students from both countries joined in the interactions. For example, they really liked interacting with Chinese students through dumpling making at Weifang Medical University. In addition to the universities, students also visited a high school and an elementary school as well as cultural and historical places, such as the Great Wall, Forbidden City, Hutongs (small alleys in Beijing), Yangjiabu Folk Art grand view garden, and Laoshan Mountain.

Overall, students in this study abroad program reported having positive learning experiences. One student commented: “I enjoyed looking at human development from a cross-cultural perspective; specifically analyzing variations between China and the United States.” Another commented, “I thought that this was a great way to get hands on experience, and the help I received regarding my research/questions was fantastic.” Capturing the spirit of the experience, a student stated, “I thoroughly enjoyed the trip, but was also pleased with the preparation before the course. Everything, from culture to human development studies, was presented well in order to understand how to do research in China, as well as what to look for in China while conducting our research.”
Department of Biological Sciences

- Added a Physiology Concentration and reorganized our Biotechnology Concentration into a Microbiology and Biotechnology concentration
- Refined departmental support mechanisms for our transfer students to close the achievement gap compared to our traditional students.
- Dr. Jingjing Kipp was elected as Chair of the Nominating Committee of Women in Endocrinology, the Endocrine Society. One of the major roles of this committee is to select and provide nominations for Endocrine Society's most prestigious Laureate Awards.
- Dr. LaMontagne was appointed an Adjunct Scientist at the Lincoln Park Zoo.
- Dr. Aguirre was appointed as a Research Associate at the Field Museum of Natural History.

See what the Biology Department is up to on Facebook! [https://www.facebook.com/DePaulBio/](https://www.facebook.com/DePaulBio/)
• Created online quizzes and videos of concept explanations and sample problem solving for DePaul students to access freely; this resource will enhance student preparation for the Chemistry Placement Test.
• Acquired a LC-MS spectrometer in response to increasing industry expectation for graduates to receive training in modern instrumentation.
• Incorporated more instrumentation (Gas chromatography-mass spectrometry (GC/MS) and liquid chromatography-mass spectrometry (LC/MS)) into undergraduate lab courses to increase the competitiveness of graduates for employment.
• Offered an innovative course that brings together instructors from Chemistry and Writing, Rhetoric, and Discourse to improve student writing in lab courses and beyond. The course was co-designed and co-taught by Dr. Tim French of Chemistry and Dr. Sarah Read.
• Created a new Discover Chicago class that focused on the City of Chicago as a case study to better understand food from both scientific and social perspectives. It was created by Dr. Tim French who used what he learned from an NSF sponsored Food Chemistry workshop to develop the course.
• Piloted a hybrid offering of General Chemistry (II and III) and converted three more courses to hybrid format – CHE 330 (Capstone), CHE 480 (Special Topics in Analytical Chemistry) and HON225 (Cosmo Chemistry: Big Bang and Extinction).
• Provided 7 hybrid course offerings for 6 unique courses and 2 online offerings of 1 course.
• Dr. Graham Griffin and Dr. Kyle Grice received sponsorship from the Department of Energy for accessing Argonne National Laboratory facility for the project "Nanomaterials for Artificial Photosynthesis Based on Zinc 8-hydroxyquinoline Complexes".
• Dr. Graham Griffin received support from the University of Chicago Materials Research Science and Engineering Center to use their facility for his project "Atomic Force Microscopy of Polymer Thin Films".
• Dr. Kyle Grice received Argonne National Laboratory Advanced Photon Source Beam Time for Fall 2016.
• Dr. Lihua Jin was selected to attend the week-long Project Kaleidoscope STEM Leadership Institute run in partnership with the American Association of Colleges and Universities.
• Dr. Carey Southern and a number of students created free videos, practice problems and online quizzes with the support of a Quality Instruction Council grant. These materials are made accessible to DePaul students free of charge to help them prepare for the Chemistry Placement Test, anytime and anywhere.

Keep up with the Chemistry Department on Facebook! [https://www.facebook.com/DePaulChemistry/]
• Dr. Christie Klimas is partnering with University of Illinois at Chicago, Northwestern, and Illinois Institute of Technology to host the joint International Society for Industrial Ecology-International Symposium on Sustainable Systems and Technology conference in Chicago. She also trained on OpenLCA - open access tool for life cycle assessment (analysis of environmental impacts of products from cradle-to-grave). She will offer a course on LCA for students in 2017-2018. A subset of LCA is already taught in the capstone.

• Dr. James Montgomery was elected as Chair of the Urban and Anthropogenic Soils Division of the Soil Science Society of America. He also traveled to Ghana with faculty from other U.S. Catholic colleges and universities to observe programs managed by Catholic Relief Services devoted to water-sanitation-hygiene.

• Dr. Mark Potosnak was elected to be a vice co-chair of the next Gordon Research Conference on Biogenic Hydrocarbons and the Atmosphere. He also co-taught a course with Dawn Nothwehr at the Catholic Theological Union on environmental science and theology.

• Dr. Kenshu Shimada received the Excellence in Research award for the College of Science and Health. His project on the new fossil shark, Megalolamna paraxoxodon, was featured in October, 2016, in various news sources, including National Geographic.

• Dr. Liam Heneghan became Associate Editor of the International journal *Biological Invasions*.

• Dr. Jess Vogt is Vice Chair to be followed by a 3-year term as Chair of the Science and Research Committee for the International Society of Arboriculture.

• Dr. Bala Chaudhary has been appointed to the board of The Talking Farm, which supports the production and appreciation of locally grown food through urban farms.

Follow the happenings in the Environmental Science and Studies department on Facebook! [https://www.facebook.com/ENVDPUI/](https://www.facebook.com/ENVDPUI/)
Department of Health Sciences

- Developed three courses – Health Policy (HLTH 250), Community Health Assessment (HLTH 335) and Program Evaluation (HLTH 336) to reflect the concentration’s alignment with the core functions of public health, assessment, policy development, and assurance, as articulated by the Centers for Disease Control and Prevention and other federal public health agencies.
- Launched minor in Bioethics & Society (along with Philosophy).
- Enrolled the first cohort of four BS+MPH students admitted to the DePaul MPH Program (Sep 2016).
- Two HLTH majors began the accelerated program at Rosalind Franklin University, one in Allopathic Medicine and one in Physician Assistant Studies.
- Nine HLTH majors were accepted to medical school (7 MD and 2 DO) to begin in Autumn 2017
- Four HLTH majors accepted to be the first cohort of combined degree BS+MENP students, beginning their training in Autumn 2017, and Fifteen HLTH majors admitted to the traditional MENP program.
- Graduated 178 students.
- Dr. Doug Bruce and Dr. James Montgomery participated in the Faculty/Staff Vincentian Heritage Tour (August 2016).
- Dr. Michele Shade-McCay was the Recipient of a Quality of Instruction Council Excellence in Teaching Award. She was also named CSH Teacher of the Year. In addition, Dr. Shade-McCay became a board Member of Health Connect One.
- Dr. Craig Klugman interviewed for Herald-Palladium (MI), Medical Ethics Advisor, New Scientist, KSRO (CA), Univision, Quartz, LifeMattersMedia, Reuters, DePaul Distinctions, Delaware News Journal, Hospitals & Health Network, JAMA News.

Find opportunities for Health Science events on their Facebook page!  
https://www.facebook.com/DePaulHealthSci
The School of Nursing held several faculty retreats designed to aid faculty in developing strategies to enhance graduate passage of the national licensure examination.

Received a technology grant from DePaul Initiative Grants Program: Academic Technology to conduct a trial of Nearpod, a web-based application designed to enhance student participation.

The MENP program began participating in community interprofessional activities with students from the Feinberg School of Medicine.

Dr. Joseph Tariman was inducted as a Fellow into the American Academy of Nursing for significant contributions in myeloma nursing practice.

Adjunct faculty member, Gloria E. Barrera, MSN, RN, PEL-CSN, was recognized and acknowledged as one of this year’s 40 Under 40 Emerging Nurse Leaders in Illinois.

Dr. Liz Florez recently received the Circle of Service Award from the American Heart Association, which honors volunteers who have provided several years of service, leadership, and success throughout our communities.

Loyola University’s Neihoff School of Nursing recently awarded the 2016 Spirit of Ignatius Award to Dr. Julie Donalek, RN, PhD, PMHCS, BC, Ann Johnson, RN, and DePaul MENP students Omolara Alao-Aboko, Kimberly Britt, Jacqueline Munyasya, and Karen Viola, all of whom participated in the Ravenswood Community Services nursing clinic.

The School of Nursing publishes a weekly newsletter on their Facebook page!

https://www.facebook.com/DePaulNursing
Department of Mathematical Sciences

- BS Degree in Actuarial Science started in Fall 2016.
- The Department has been chosen by the Mathematical Association of America as one of 12 departments of mathematics in the country to be part of a national study on “Progress through Calculus.”
- Collaborated with the College of Education on redesigning the curriculum for future teachers of elementary education to meet the new State standards.
- The Math Club completed the Menger sponge origami project over the course of eight months. The final result is built out of around 35,000 folded business cards, using no tape, glue, or fasteners of any kind. It stands nearly 5 feet tall and weighs about 120 pounds. The Menger sponge sculpture project is interdisciplinary (Art + Math). It is currently on display in the first floor of the University Library.
- The Statistics Consulting Center has been established to serve DePaul and other non-DePaul groups.
- Dr. Ahmed Zayed was appointed Chair of SampTa Steering Committee. SampTa stands for the Sampling Theory and Applications and it is an international biennial interdisciplinary conference for mathematicians, engineers, and applied scientists.
- Dr. Kyle Petersen was given the Quality of Instruction Council Excellence in Teaching Award.
- Three faculty members, Drs. Kyle Petersen, Chris Drupieski, and Andrew Carroll attended a week-long workshop on Inquiry Based Learning, hosted by the Academy of Inquiry Based Learning at Cal Poly San Luis Obispo, California, to learn how to implement the new methodology at DePaul University.
- Dr. Ahmed Zayed represented DePaul University at the National Conference on Improving STEM Outcomes through Learning Science, in Tucson, Arizona, March 17-19, 2016. Attendance was by invitation only.
- Three faculty members, Drs. S. Bockting-Conrad, S. Orfanos, and G. Wang went through DOTS, so that the department can offer the Business Calculus Sequence (MAT 135-137) online for the first time.

You can find out what the Math department has been up to on their Facebook page!
https://www.facebook.com/depaulmathstats/
• The Department was selected as a Bridge Partnership Institution by the American Physical Society. This program aims to increase the number of underrepresented minorities obtaining PhD’s in Physics.
• Dr. Jesús Pando was elected President of the National Society of Hispanic Physicists. He was also appointed to the Committee on Minorities of the American Physical Society. In this capacity he conducted racial training sessions at the National Mentoring Community conference. Pando also received a renewal of his Sloan Digital Sky Survey (SDSS) Grant to continue his research on detecting Baryonic Acoustic Oscillations and to support two undergraduate students in this research.
• Dr. Susan Fischer was awarded an instructional grant to support her work on “Videos for Physics Demonstrations” by the Quality of Instruction Council. Working with Sigma Pi Sigma (SPS) students, they will create videos for introductory physics courses to be used at DePaul University.
• Jim Scheidhauer, MS was selected as one of three recipients for the first-ever award for the innovative use of the Art Institute in a First Year Program Course.
• Students presented their research at the SDSS collaboration meeting in Madison, WI, and at the American Astronomical Society’s Winter meeting in Dallas, TX.

Catch up with the Physics Department on Facebook! https://www.facebook.com/depaulphysics/
• DePaul’s Psi Chi Chapter won a model chapter award and is one of only four regional chapter awards for the 2015-2016 academic year.
• Dr. Suzanne Bell was recognized as one of 2016’s Top 10 Chicago Women in Science by *Make it Better Magazine*, and was named May Scientist of the Month by the Association for Women in Science, Chicago. Dr. Bell and former students won the 2016 Journal of Management Scholarly Impact Award for team diversity and team performance meta-analysis. This award recognizes work with lasting impact on the academic community and beyond. Dr. Bell gave the 2016 commencement address at Olivet Nazarene University, and she was appointed as the membership chair for the Society of Industrial and Organizational Psychology.
• Dr. Susan McMahon was elected president of the Society for Community Research and Action, Division 27 of APA. Her official role as President began in August, 2016 at the American Psychological Association in Denver, Colorado.
• Dr. Bernadette Sanchez was invited to present at a congressional briefing of the White House’s My Brother’s Keeper Caucus. Dr. Sanchez was also an invited panelist in the U.S. Department of Education webinar on Mentoring and Educational Success/Career Exploration.
• Dr. Joe Ferrari received the 2016 APA-Italian-American Distinguished Psychologist Award, was fellow status in 2016 for Division 8 of APA, Society for Personality and Social Psychology.
• Dr. Goran Kuljanin was selected to serve a two-year term on the Scientific Affairs Committee of the Society for Industrial and Organizational Psychology.
• Dr. Alice Stuhlmacher was an invited seminar speaker at Harvard University Kennedy School, Women and Public Policy program in October, and presented her research.
• Drs. Kathy Grant and Susan McMahon, are among the five new Vincent DePaul Professors selected and inducted in Fall, 2016.
• Dr. Molly Brown’s online class “Alcoholism, Drug Addiction, and Recovery” was awarded a Quality Matters Gold Star.
• Dr. David Allbritton is experimenting with the use of a free online textbook in Introductory Psychology as a cost-saving option for students.
• Dr. Sandra Virtue was selected as the alternate member for DePaul University on the Faculty Advisory Council (FAC) for the Illinois Board of Higher Education (IBHE). Dr. Virtue organized the monthly CSH Emerging Technology Meetings to discuss new technology for face to face, online, and hybrid classes.

• Dr. Anne Saw is helping to organize DePaul’s annual Diversity Forum for DePaul faculty, staff, and students. This event is co-sponsored by the President’s Diversity Council, Office of Institutional Diversity and Equity, and the seven DePaul Employee Resource Groups. Dr. Saw organized a training workshop on intergroup dialogue for DePaul faculty, grad students, and staff. Drs. Saw and Sanchez also developed programming for DePaul Psychology graduate students and faculty of color with the aim of supporting the retention of graduate students of color.

Center for Community Research

• Dr. Leonard Jason, Director of the Center for Community Research and Professor of Clinical Community and Community Psychology, currently has 4 NIH Grants, which amount to $8,155,922. The portion distributed in 2016 totaled $1,679,959.68, with indirect costs of $482,694.51 provided to DePaul.

• Last fall, 19 undergraduates who worked or volunteered at the Center for Community Research were admitted to graduate programs in psychology, social work, or other graduate programs.

• NIH has appointed a group to develop basic data elements for Chronic Fatigue Syndrome and Dr. Jason has been asked to participate in this group.

• Dr. Ronald Harvey, Project Director and researcher, was selected for a 2015-2016 Fulbright U.S. scholar grant.
Family and Community Services

- With the involvement of several Psychology faculty, as well as staff directed by Dr. Orson Morrison, Family and Community Services served as a local community mental health center for children and families, and a training center for our doctoral students in psychology, as well as masters and doctoral students from across the city.
- Served a diverse client base: 39% of clients identified as African-American, 37% of clients identified as Hispanic/Latino, 15% of clients identified as White, 2% of clients identified as Asian/Pacific Islander, and 1% identified as American Indian; with 68% of clients served reported annual household incomes of $25,000 or less.
- Collaborated with Chicago Public Schools, renewed its strategic vendor agreement, submitted a grant to the U.S. Department of Education, and hired a Spanish-speaking Psychologist.
- The evidenced-based ACT/ADAPT depression treatment program was delivered in 6 primarily low-income, ethnic-minority schools.
- Provided early-childhood services at St. Vincent DePaul Center, a preschool that serves primarily low-income, ethnic-minority families.
- Optimized Chicago as an active learning laboratory for students and acted as a partner with our urban community and continued partnerships with several schools including: Jenner Academy of the Arts, Manierre Elementary, Chicago Quest Charter School, Avondale-Logandale School, Lincoln Park High School, Alcott College Prep, and Fourth Presbyterian/Chicago Lights Summer Day School and formed a new partnership with McAuliffe Elementary School.
- Obtained school-based grants totaling $74,588 and continued growth in private insurance revenue increasing from $30,000 in FY15, to $51,038 in FY16.
- Offered a Diversity training series on the topic of the criminal justice system.
- Trained 15 doctoral clinical psychology students, 2 MSW social work students, 1 art-therapy intern; 4 Masters-Entry Nursing Students, and 4 undergraduate students.
- Provided approximately 918 hours of Individual clinical supervision of doctoral psychology and MSW candidates, 270 hours of group supervision and 280 hours of live supervision.
- Provided 327 hours of continuing education programming and provided a total of 2300 hours of service at local schools.
STEM Center

- Collaborated with colleagues at the University of Chicago and the University of Illinois at Chicago to develop a set of seven math and leadership courses for teachers of children in grades 1-6 and to begin the process of proposing that the Illinois State Board of Education create a credential for Elementary Math Specialists. Funding from the Chicago Mercantile Group Foundation will cover tuition for 45 teachers to take the first course in the series, 15 at each institution.
- Developed a partnership with the Math Circles of Chicago, which seeks to provide 5th to 12th graders in all communities of Chicago with opportunities to actively participate in doing novel mathematics in order to increase their mathematical power and to promote a lifelong love of mathematics.
- With funding from the Illinois Space Grant, the STEM Center developed a hands-on robotics component for the 2017 STEM 409 course (Mathematical Methods for Middle School Teachers) to further align the program with the Next Generation Science Standards and to enhance the skills of the teachers in the program.
- Partnered with the Department of Mathematics of the Chicago Public Schools to plan and implement system-wide professional learning for math teachers in grades P-12, and deeper support in the form of Professional Learning Community and Math Team Learning Community meetings for P-5 teachers in fifteen schools.

Neuroscience Program

- The new Bachelors of Science in Neuroscience officially launched in Autumn of 2016.
- Created the infrastructure for implementing the major, including creating new courses, adding them to the university catalog, hiring an adjunct, and creating a team to assist students with academic and career advising. Co-directors also coordinated with departments involved in the curriculum to assure course offerings and cooperation.
- There are 66 majors in the new program across a variety of different concentrations. The Neuroscience Major is an interdisciplinary program that incorporates faculty members across a broad scope of academic disciplines (e.g., Biology, Psychology, CDM, Philosophy, etc.) to help meet the Vincentian mission. In addition, the Neuroscience Capstone course enables students to discuss the real-world, ethical and cultural implications of research in the field of Neuroscience (e.g., neuroethics, neuroscience research used in legal cases, cognitive neuroenhancers, consciousness).
Office of Advising and Academic Success

- As a result of increased marketing efforts, pre-health advising traffic increased 48% in 2015-2016 from the previous year.
- Continued the Dean’s Undergraduate Fellowship program – funded by the CSH Advisory Council. There were 117 unique applicants who applied for 12 available positions. Student applications grew by 50%.
- Crosstrained advisors to have them advise less as specialists and more as generalists. In the currently more constrained fiscal environment, this allows for more flexibility in utilization of resources.
- The CSH Advising Committee hosted an Advising Summit in November 2016, bringing together faculty and staff in the college to discuss ways to better support advising efforts.
- Ten students were admitted to Rosalind Franklin University of Medicine and Science through the Early Opportunity Program.
- Three staff, Erin Berkowitz, Darren Davis, and Michelle Johnson, were elected to Staff Council in May 2016.
- The Associate Director of Academic Advising, Lauren Paez, was named Supervisor of the Year by DePaul’s Office of Student Employment in April 2016. Lauren was also elected as the DePaul Academic Advising Network (DAAN) secretary in May 2016.
- The Director of Academic Advising, Erin Berkowitz, received the Gerald Paetsch Academic Advising Award in August 2016. Erin also participated in the Vincentian Heritage Tour in August 2016.
- Five staff members, Erin Berkowitz, Lindsey Burdick, Darren Davis, Michelle Johnson, and Lauren Paez, served staff professionals for the Chicago Quarter program in autumn 2016. Additionally, Michael Roberts, Assistant Dean for Academic Services, was a faculty member for Explore Chicago that quarter.
- DePaul was selected to host Illinois Pre-Health Day in April 2017.
- Lindsey Burdick, Associate Director of Pre-Health Advising attended the National Association of Advisors for the Health Professions conference in June 2016.

See what is going on in the College and in the Advising Office on Facebook!
https://www.facebook.com/CSHAdvising/
New Faculty Grants

The following grants were newly awarded in the year 2016. Awarded amounts listed are the total amounts of the grant award.

The U.S. Department of Housing and Urban Development awarded $466,520 to Molly Brown for Housing Outcomes, Tenant Satisfaction, and Community Integration in Single-site and Scattered-site Housing First Models: A Randomized Trial. Housing First is a model of permanent supportive housing in which individuals experiencing chronic homelessness receive housing without requirements for sobriety or participation in mental health or substance abuse treatment. Support services are offered to tenants, who are often living with mental illness and substance use disorders, but tenants determine the type and intensity of services they receive based on their individual recovery goals. This mixed methods randomized trial will examine the effects of concentrated and integrated Housing First models in order to address a number of research and policy questions regarding the Housing First approach.

The National Institutes of Health awarded Elizabeth LeClair $443,089 for Follow That Cell: Motility Analysis of L-Plastin Mutant Zebrafish. Cell motility is a common aspect of both health and disease. Motile cells are critical for the immune system, which protects us. Conversely, aberrant cell motility is a hallmark of malignant tumors, which can be lethal. How cells regulate their movements is therefore an important issue. This study will explore the genetics of cell motility by experimentally manipulating in zebrafish a key component of the cytoskeleton: the actin-bundling protein L-plastin.

The National Aeronautics and Space Administration awarded $399,989 to Suzanne Bell for A US-Russian Collaborative Proposal for Data Collection in HERA: The Relationship between Composition, Interpersonal Relations, and Team Effectiveness in Space Crews. Long-duration space exploration missions (LDSEM) will require crews diverse in national origin, gender, and professional background to live and work in prolonged isolation and confinement for extended periods of time. This research project, carried out in collaboration with a team of Russian scientists, will help address the need to understand the key threats, indicators, and life cycles of crews composed for LDSEM; and to identify psychological and psychosocial measures and factors that can be used in selecting individuals most likely to maintain team function.

The National Institutes of Health awarded $168,845 to Douglas Bruce for a project entitled Motives for Heavy Cannabis Use among Young Men who have Sex with Men Living with HIV/AIDS. This study will investigate the range of motives (recreational, therapeutic or medical, and stress-related) associated with heavy cannabis use among young men who have sex with men living with HIV/AIDS. The degree to which HIV-related stressors may drive heavy cannabis use among this population is not well defined. An ecological approach will assess individual, interpersonal, community-level, and societal factors associated with cannabis use among this group and estimate associations between heavy cannabis use and a range of HIV care continuum outcomes.
The Chicago Board of Education awarded $123,600 to Orson Morrison for social emotional learning services provided to a number of CPS schools. DePaul Family and Community Services will offer these schools a range of direct social, emotional and behavioral learning services including trauma treatment, anger management, general social work, and behavioral health support.

The CME Group Foundation awarded $100,000 to Carolyn Narasimhan for an Elementary Math Specialist Pilot. DePaul University, in partnership with the University of Illinois at Chicago (UIC) and the University of Chicago will collaborate to finalize the development of the Math Specialist Program and pilot the introductory course with CPS elementary teachers. The Math Specialist Program is designed to provide elementary school teachers with the knowledge, confidence, and tools for teaching mathematics to young children.

The American Chemical Society awarded $55,000 to Paul Vadola for New Methods for the Synthesis of Spirocycles via Lewis Acid Catalyzed Dearomative Arene Alkyne Coupling. This research project, which will include students as researchers, will focus on the construction of C-C bonds, which lies at the heart of organic synthesis. Specifically, the project will investigate the spirocyclization of new alkynyl arenes substrate classes. It will also examine the catalytic spirocyclization mechanism through computational studies and isotope-labeling experiments, with an emphasis on elucidating the critical role of water in the reaction.

Via a subaward from the University of Kansas, the National Institutes of Health awarded $45,461 to Kathryn Grant for a project entitled Trauma exposure, emotion regulation and cognitive skills in early childhood: Prospective and longitudinal examination of the mechanisms of adjustment. Dr. Grant will oversee the measurement of trauma exposure for the project. She will also use her expertise in the dimensional assessment of trauma (i.e., chronic vs acute) to ensure that the sample is balanced across the continuum of trauma exposure and that the measurement of trauma is valid and reliable for the entire sample over time. In addition, she will assist with the preparation of presentations and manuscripts.

The Simons Foundation awarded $35,000 to Christopher Drupieski for a research project entitled Cohomology and Support Varieties. This research project focuses on the representation theory and cohomology of algebraic (super) groups, Lie (super) algebras, finite (super) group schemes, and related algebraic structures. Other topics include cohomology calculations in categories of functors (namely, strict polynomial functors, and strict polynomial superfunctors), and the application of these results to prove that various cohomology rings are finitely-generated algebras.

Via a subaward from Rosalind Franklin University of Medicine, the National Institutes of Health awarded Dorothy Kozlowski $20,510 for a project entitled Nep-like endopeptidases in traumatic brain injury and the associated dementias. This collaborative research will be carried out in a laboratory at Rosalind Franklin, which has transgenic mice that express (or not) an enzyme thought to play a role in the expression of the pathological protein A-beta in Alzheimer’s disease. Traumatic brain injury (TBI) also results in the expression of A-beta. This project will explore
whether the enzyme that assists in removing A-beta in Alzheimer's disease may so do so in TBI and whether it may be a new therapeutic target.

Matthew Sorenson received a subaward for $20,498 from Ann & Robert H. Lurie Children’s Hospital of Chicago to collaborate on a project entitled Remember MenB: Impact of Healthcare Provider and Patient Education on Awareness and Understanding of MenB Disease and Vaccine Recommendations and Impact on Increasing Vaccination Rates. As part of this project, Dr. Sorenson will participate in revision and development of an assessment measure and aid in the implementation and evaluation of the planned intervention. The subaward is funded by a grant to Lurie Children’s Hospital from Pfizer Pharmaceutical Company.

Via a subaward from Chicago State University, the National Science Foundation awarded $18,000 to Carolyn Narasimhan for the Illinois Stokes Alliance for Minority Participation 2016-17. The Louis Stokes Alliance for Minority Participation (LSAMP), a program funded by the National Science Foundation, assists colleges and universities in transforming education in science, technology, engineering, and mathematics (STEM) disciplines through innovative recruitment and retention strategies and experiences in support of groups historically under-represented in STEM disciplines. This award will provide research and professional development opportunities to a number of DePaul STEM undergraduate students.

The Jonas Center for Nursing and Veterans Healthcare awarded $10,000 to Joseph Tariman for the DNP Jonas Nurse Leader Scholar scholarship. The Jonas Nurse Leader Scholar program supports doctoral nursing students pursuing both PhD and DNP degrees. The goal of this program is to increase the number of doctorally-prepared faculty available to teach in nursing schools nationwide, as well as the number of advanced practice nurses providing direct patient care.

Joanna Buscemi received a subaward for $7,945 from the University of Illinois at Chicago (UIC) to collaborate on a project entitled An e-Health Intervention to Improve Symptom Burden and HRQOL among Hispanic Women Completing Active Treatment for Breast Cancer. The project is a pilot study that aims to create and evaluate Mi Guia (My Guide), a culturally informed eHealth educational and psychosocial intervention for English or Spanish-speaking Hispanic women completing treatment for breast cancer. DePaul University will co-develop the application content for the Mi Guia smartphone application, assist in the development of the application and of the in person and phone coaching protocols, provide training sessions for UIC phone coaches, and provide ongoing clinical support. Dr. Buscemi’s subaward is funded via a grant by to UIC by the National Institutes of Health.

The Mathematical Association of American awarded Carolyn Narasimhan a grant of $5,980 for Expanding the Math Circles of Chicago in High Need Areas. This award will enable the Math Circles of Chicago to intensify its outreach to motivated students in two high-needs areas of Chicago: Bridgeport and Pilsen.

Fourth Presbyteryarian Chicago Lights—Summer Day awarded $2,300 to Orson Morrison for implementation of a Social Emotional Learning Curriculum. DePaul’s Family and Community
Services will implement a program-wide social emotional learning curriculum. As a result, students will learn and practice social emotional skills that are developmentally appropriate; teachers and staff will have resources and curricula to support their students' successful coping and conflict resolution. Students' successful coping will lead to increased on-task behavior and learning in the classroom.

The Psi Chi National Honor Society awarded $2,000 to Jennifer Zimmerman for *Do we Justify, Condemn or Qualify the American System?* System justification theory asserts that individuals are motivated to defend the status quo and perceive the system as fair and just, while system condemnation theory posits that individuals criticize the current social arrangements and perceive the system as unfair and unjust. This project proposes a new concept, called system qualification, which asserts that individuals will perceive that the system functions better for some groups (i.e., higher status), and under some conditions, more than others. The purpose of the current study is to better understand which status members will be more likely to justify, condemn, and qualify the American system and under what conditions.

The Society for Personality and Social Psychology awarded $1,500 to Kimberly Quinn for a research project entitled *Physical Environment Connectedness and Wellbeing*. Self-other connectedness promotes a variety of positive outcomes, but what happens when the "other" is the physical environment? This experiment will test the hypothesis that while walking and listening to music (to promote self-expansion), participants who attend to the physical environment will show greater sense of place and higher well-being than participants in baseline self-focus or baseline conditions, and that this relationship will be mediated by a sense of physical self-environment connectedness.

The Illinois Ornithological Society awarded $1,000 to Jalene LaMontagne for *The effects of urbanization on neophobic behavior and problem-solving in American Crows (Corvus brachyrhynchos)*. American crows (Corvus brachyrhynchos) have exploited urban habitats and are abundant in urban and rural areas throughout North America. Though much is known about crow behavior, the degree to which urbanization has led to behavioral shifts is unknown. This project will study behavioral differences of American crows living in urban and rural environments, and seasonal effects on behavior.
Continuing Faculty Grants

In addition to the new grants listed above, the College of Science and Health faculty have many grants that are continuing in 2016 from previous award years. Awarded amounts listed are the total amounts of the grant awards.

The National Institutes of Health awarded $2,961,786 to Leonard Jason for Emergent Social Environments as Predictors of Recovery Resident Outcomes. This research project will help us better understand the mechanisms whereby a sober living experience prolongs abstinence; how the social dynamics of residential life in such residences affect outcomes; which elements are critical and which are optional; and identify who benefits most and least from such care.

The National Institutes of Health awarded $2,861,857 to LaVome Robinson for Social Ecology and the Prevention of Suicide and Aggression in African American Youth. This study utilizes a randomized controlled design to examine the efficacy of a 15-session, group-delivered, culturally-anchored, cognitive-behavioral prevention intervention for low income, urban African American adolescents. Targeted outcomes involve the reduction of both self-directed and interpersonal violence for students who participate in the intervention, relative to students randomized to the usual care control condition. This study is expected to have broad public health implications toward the reduction of African American youth health disparities and inform practice and policy on the development of effective violence prevention interventions for African American youth.

The National Institutes of Health awarded $2,492,604 to Leonard Jason for A Prospective Study of Chronic Fatigue Syndrome Following Infectious Mononucleosis in College Students. This study aims to prospectively investigate possible biological and psychological factors present in college students who will go on to develop chronic fatigue syndrome (CFS) following Infectious Mononucleosis (IM). Identification of risk factors predisposing patients towards developing CFS may help to understand the underlying mechanisms and ultimately prevent its occurrence.

The National Institutes of Health awarded $1,977,470 to Leonard Jason for Pediatric CFS in a Community-Based Sample. The goal of this five-year project is to determine the prevalence of pediatric chronic fatigue syndrome (CFS) in a demographically diverse sample of participants unbiased by illness, help-seeking behaviors, or differential access to health care.

The National Institutes of Health awarded $1,614,563 to Joseph Mikels for Emotion, Aging, and Decision Making. Exercise is routinely recommended for older adults because of its broad positive impact on health and well-being. However, little is known about how different ways of framing exercise messages influence exercise behaviors in older adults. "Loss-framed" messages emphasize the negative consequences of not engaging in a behavior while "gain-framed" messages emphasize the benefits of engaging in it. This research project will examine the
underlying mechanisms by which such message framing influences intentions to exercise and actual physical activity. The project is methodologically innovative in its measurement of both cognitive and emotional reactivity to health messages.

The Chicago Community Trust awarded $700,000 to Lynn Narasimhan for CPS/DePaul Network Partnership: Year 4. The CPS/DePaul Network Partnership is a continuing, coordinated effort with the Department of Mathematics and Science of the Chicago Public Schools (CPS) to build and extend capacity to implement the Common Core State Standards for Mathematics in networks, schools, and classrooms. In its fourth year, the project will continue its support of work being offered by CPS in seventeen networks across the district, and will continue to provide further professional development and in-class coaching support to committed teachers and leaders in six of those networks.

The National Science Foundation awarded $595,432 to Joseph Mikels for The Role of Affect in Decisions Involving Risk. Though decision making is traditionally considered a critical cognitive endeavor, recent theory and research underscore the role of emotion. In particular, it has become increasingly clear that various aspects of affect are central to decisions involving risk. However, how these affective influences interact remains unknown. The current proposal presents a framework that integrates the various disparate influences of affect on decisions involving risk and offers several empirical investigations that hold promise to elucidate such influences.

The Annie E. Casey Foundation awarded $583,165 to Antonio Polo for An Intervention for Depression among Low-Income Youth. The funding requested will support the development of components to enhance, supplement, and strengthen an evidence-based program targeting youth depression called Act & Adapt so that it can be implemented with low-income youth of ethnic minority backgrounds and their parents.

The Bill & Melinda Gates Foundation awarded $500,000 to Lynn Narasimhan for Leading with Algebra. The DePaul University Teacher Practice Network initiative, "Leading with Algebra," is a partnership with the Chicago Public Schools to support the implementation of the Common Core State Standards for Mathematics in the pivotal area of algebra in grades 6-8.

The National Science Foundation awarded $394,312 to Joseph Mikels for Acquisition of a Neurophysiology Laboratory for a Research and Training Initiative in Affective, Social, and Cognitive Neuroscience. This grant award will help to support the purchase of neuroscience and physiology equipment that can serve multiple departments at DePaul for research and training purposes, greatly advancing the possibilities for scientific inquiry at the University. The new equipment will be used to establish a shared, multidisciplinary and highly integrated research and
training laboratory in physiology and neuroscience that will attract new undergraduate and graduate students, as well as quality faculty, to the life sciences at DePaul.

The National Aeronautics and Space Administration awarded $301,328 to **Suzanne Bell** for **CREWS: Crew Recommender for Effective Work in Space**. Some of the key research aims of this project are to identify the effects of team composition on team functioning in long-distance space exploration (LDSE) along with the critical factors of team composition driving this effect; investigate particular patterns of this effect with different team compositions; and identify methods for composing teams for LDSE. DePaul’s participation in this project is supported by a NASA-funded subaward from Northwestern University.

The National Institutes of Health awarded $278,350 to **William Gilliland** for **Congression in Drosophila Female Meiosis**. This project will use the fruit fly (Drosophila melanogaster) as a model system to study chromosome congression during egg development. Congression is the process where the chromosomes all become lined up before the cell divides. This is important for public health because errors that occur during egg development are the single most common source of birth defects, and can cause diseases such as Down syndrome.

The Chicago Community Trust awarded $275,000 to **Lynn Narasimhan** for **DePaul/CPS Science Partnership (Year 3)**. DePaul University’s STEM Center will partner with the Chicago Public Schools to develop programming for educators in support of the Common Core Standards in Science. A main goal of the STEM Center is to develop and support math and science programs for K-12 teachers throughout Chicago.

The National Institutes of Health awarded $205,423 to **Young Me Lee** for **Bridges to Doctorate**. The Bridges to the Doctorate Program provides support to institutions to help students make a critical transition in their development as scientists. The program is aimed at helping students make the transition from master’s degree programs to Ph.D. programs. The program promotes institutional partnerships between institutions granting a terminal master’s degree and institutions that grant Ph.D. degrees in the biomedical sciences.

The Illinois Space Grant Consortium Office awarded $124,635 to **Bernhard Beck-Winchatz** for **New NASA-Based STEM Courses**. This award will fund the development of new NASA-based courses: a new STEM course for DePaul’s general education program based on the use of small multi-rotor model helicopters, and NASA-based courses for middle school teachers.

The National Institutes of Health awarded $114,130 to **Sarah Connolly** for a project entitled **Herpes Virus Gene Expression in Transformed Cells**. Dr. Connolly will investigate the conformational changes in the herpesvirus entry glycoproteins that mediate virus entry into cells and the protein-protein interactions that occur among these proteins.
The Astrophysical Research Consortium/SDSS awarded $110,005 to Jesus Pando for Sloan Digital Sky Survey Project (SDSS-IV) FAST Support. The goal of the Sloan Digital Sky Survey (SDSS-IV) eBoss project is to measure the expansion history of the Universe throughout eighty percent of cosmic history. With the aid of Faculty and Student Team (FAST) support, Dr. Jesus Pando and his team of DePaul students will collaborate with SDSS scholars on the eBoss survey. In particular, they will examine exactly when the transition from deceleration to acceleration occurs and whether that tells us something about which theories of dark energy are plausible; the characteristics of structure formation during this epoch; and large scale clustering with an eye towards detecting anisotropies in the matter distribution and what that might mean for conditions in the early universe.

The National Science Foundation awarded $109,517 to Susan Fischer for Embodied Physics Learning. Dr. Susan Fischer will provide expertise on the physics side of this interdisciplinary research project. She will collaborate with the University of Chicago Psychology team to develop embodied learning exercises for students that are aimed at providing insight into the concept of center of gravity, and related topics in introductory physics. She will develop lecture materials, demonstrations, and traditional lab experiments designed to mesh with the embodied learning exercises.

The National Science Foundation awarded $72,103 to Gabriela Gonzalez Aviles for Fundamentals of Amorphous Oxide Semiconductors. This proposal will be submitted by Northwestern University. Its goal is to investigate the field of amorphous oxide semiconductors. Fundamental issues to be addressed include structural relaxation/crystallization, point defects, conduction mechanisms, band structure and device fabrication.

Neumann Family Services awarded $68,984 to Susan McMahon for work that Chris Keys is leading on the IPS Model Evaluation. DePaul University will participate in conducting a comprehensive evaluation of an evidenced-based IPS model of supported employment. The evaluation will assess staff growth, agency changes, and client outcomes.

New York University awarded $53,545 to Christine Reyna for Graduate Student Research Support. Dr. Christine Reyna will oversee the work of a DePaul graduate research assistant for Dr. PJ Henry, Associate Professor of Psychology at New York University Abu Dhabi. Dr. Reyna will monitor the work of the research assistant, whose assignments will include doing statistical analyses, maintaining large datasets, and occasionally running in-lab studies at DePaul. Dr. Reyna will provide Dr. Henry with periodic progress reports in a mutually agreed upon format and time.

The Simons Foundation awarded $35,000 to Bridget Tenner for a Simons Collaboration Grant. This award will support collaborative research in mathematics over a five-year period. Faculty from MIT, the University of Washington, and North Carolina State will join Bridget Tenner from DePaul in research focusing on a structured analysis of Coxeter systems and the Bruhat order.
The funding from the Simons Foundation will support the travel costs involved in this collaboration.

The Simons Foundation awarded $35,000 to Karl Liechty for Random Matrix Theory and Applications. The Simons Foundation's Division for Mathematics and the Physical Sciences awards grants to mathematicians to stimulate collaboration in the field, primarily through the funding of travel and related expenditures. The collaborative research for this project will have a dual focus: one area is the study of various universal multi-time determinantal point processes; the other is the study of the six-vertex model with domain wall boundary conditions.

The Simons Foundation awarded $35,000 to Kyle Petersen for Algebraic, Geometric, and Enumerative Combinatorics. The Simons Foundation's Division for Mathematics and the Physical Sciences awards grants to mathematicians to stimulate collaboration in the field, primarily through the funding of travel and related expenditures. This collaborative project will focus on the following three areas: 1) Face enumeration in combinatorial topology, 2) Enumerative combinatorics of Coxeter groups, and 3) Affine hyperplane arrangements and descent algebras.

The Simons Foundation awarded $35,000 to Ilie Ugarcovici for Dynamical Systems and the Geometry of Orbits. The collaborative research supported by this award will focus on the area of Dynamical Systems. A dynamical system is a time evolving process. As a mathematical structure, it consists of a phase space (the space where the states of the system are located) and an evolution law. One of the main goals in the analysis of a dynamical system is to understand the long-term behavior of various orbits of the system and to predict, if possible, the limiting state(s).

The Chicago Community Trust awarded $31,000 to Lynn Narasimhan for Illinois Elementary Math Specialist Project. The University of Chicago Center for Elementary Mathematics and Science Education, the UIC Learning Science Research Institute, and DePaul University will collaborate on a planning grant to develop a framework for an Elementary Math Specialist program. This program is intended to increase the mathematical knowledge and pedagogical skills of teachers in grades three to five, enabling them to serve as math teacher leaders. Two or three representatives from each of the three partner universities will form a planning team that will meet regularly throughout the 2015-2016 academic year.

The National Science Foundation awarded $30,000 to Andrew Carroll for International Conference on Representation Theory. The goal of this conference is to provide an environment to share progress that has been made in diverse fields that bring together studies in representation theory and commutative algebra. Emphasis will be placed on exposing cutting edge methods in these subjects in order to bring a new crop of junior researchers to the field.

The Chicago Board of Education awarded $20,025 to Orson Morrison CPS Network 4 Attendance Grant. DePaul University's Family & Community Services will provide behavioral health services
and clinical support to two assigned schools in Network Four of the Chicago Public Schools. Services will include individual counseling, one CBITS group (Cognitive Behavioral Intervention for Trauma in Schools), contingent upon need; home visits as needed; and presentations to staff on the impact of trauma on students, staff, and the school environment.

The National Science Foundation awarded $18,000 to Lynn Narasimhan for Stokes Alliance for Minority Participation. The Louis Stokes Alliances for Minority Participation (LSAMP), a program funded by the National Science Foundation, assists colleges and universities in transforming education in science, technology, engineering, and mathematics (STEM) disciplines through innovative recruitment and retention strategies and experiences in support of groups historically under-represented in STEM disciplines. This award, made via a subaward from Chicago State University, will provide research and professional development opportunities to a number of DePaul STEM undergraduates.

The Chicago Board of Education awarded $15,000 to Orson Morrison for Consultation Services for McAuliffe Elementary School. DePaul University Family and Community Services will serve as a consultant to provide social, emotional and behavioral interventions to students at McAuliffe Elementary School.

The Chicago Board of Education awarded $14,250 to Orson Morrison for Consultation Services for Lincoln Park High School. DePaul University Family and Community Services will serve as a consultant to provide social, emotional and behavioral interventions to students at Lincoln Park High School.

The Huron Mountain Wildlife Foundation awarded $12,751 to Jalene LaMontagne for Mast-Seeding Dynamics in the Southern Range of Boreal Forests. This proposed research at Huron Mountain Research Station focuses on variation in plant cone and seed production in a species that characteristically undergoes mast seeding, white spruce. Though mast seeding is a population phenomenon, Dr. LaMontagne will take the novel approach of examining individuals within a population. The short-term research question is: How variable is i) cone production per tree, and ii) seed production per cone within and between trees in a population of white spruce?

The Chicago Quest Charter School awarded $10,000 to Orson Morrison for Chicago Quest School-Based Mental Health Clinic. DePaul University Family and Community Services will provide a range of psychological services to Chicago students and families referred by CICS Chicago Quest, a charter school that is part of the Chicago Public Schools.

The Chicago Board of Education awarded $9,675 to Orson Morrison for Consulting Services for Avondale-Logandale Elementary. DePaul University Family and Community Services will serve as a consultant to provide social, emotional and behavioral interventions to students at Avondale-Logandale Elementary School.
The Chicago Community Trust awarded $9,208 to **Lynn Narasimhan** for *Chicago STEM Education Consortium*. As part of the Chicago STEM Education Consortium, DePaul will contribute to program coordination, center marketing, policy development, and consulting services.

The US Department of Agriculture awarded **Christie Klimas** $7,854 for *Planning for Equitable Urban Landscapes*. This project will develop new tools and maps focused on identifying communities underserved by urban forest green infrastructure, evaluating resilience under future scenarios, and optimizing management strategies to mitigate disparities and risks.

The Chicago Board of Education awarded $4,500 to **Orson Morrison** for Conflict Resolution Services: Manierre Elementary. DePaul's Family and Community Services will continue to implement a Positive Behavior Intervention and Support (PBIS) program at Manierre Elementary to help ensure that students receive consistent reinforcements and consequences for their behavior. Family and Community Services will also begin implementation of Peace Circles; work to build a culture of accountability and ownership; and provide intensive consultation and co-teaching with teachers to increase socio-emotional learning within the classroom.

The National Science Foundation awarded $4,000 to **Liam Heneghan** for *A Global Sustainable Soundscapes Network*. We are undertaking a series of recordings along Chicago's iconic lake shore. In particular, we concentrate on areas in Lincoln Park that are set aside for nature conservation or that are undergoing ecological restoration. In the coming months we will continue to record in Lincoln Park but will supplement this work with new recording locations elsewhere in the city. We will also start to systematically analyze the large repository of sound files and will write a comprehensive account of work to date.
Faculty Publications

Biology

Aguirre, Windsor E.


Bell, Margaret R.


Cohn, Stanley A.


Kipp, Jingjing L.

Kozlowski, Dorothy A.


LaMontagne, Jalene M.


Norstrom, Eric M.


Sparkes, Timothy C.


Chemistry

Grice, Kyle A.


Karver, Caitlin E.


Maresh, Justin J.


Parra, Ruben D.


Environmental Science

Chaudhary, V. Bala


Klimas, Christie A.


**Montgomery, James A.**


**Vogt, Jessica M.**


Bruce, Douglas


Klugman, Craig M.


Jerome, Jessica S.

Mathematical Sciences

Berele, Allan


Carroll, Andrew T.


Catoiu, Stefan


Drupieski, Christopher M.


Habtezgi, Desale H.


Hughes, Glenn S.


Kashina, Yevgenia

Liechty, Karl E.


Orfanos, Stefanos C.


Petersen, Thomas K.


Sher, David A.


Tenner, Bridget E.


Thompson, Katherine E.


Nursing

Badowski, Donna M.


Feinberg, Rebecca S.

Florez, Elizabeth A.


Harris, Barbara A.


Holm, Karyn


Larimer, Karen A.


Lee, Young-Me


Sorenson, Matthew R.


Tariman, Joseph D.


Webber-Ritchey, Kashica J.


Physics

Kustusch, Mary Bridget

Bell, Suzanne T.


Brown, Molly M.


Brown, M. M. Opening more doors to end homelessness through a shared housing model. *Psychiatric Services, 67*, 1161-1161.

Buscemi, Joanna


Carter, Jocelyn S.


Cellar, Douglas F.


Ferrari, Joseph R.


Gomez, Pablo


Grant, Kathryn E.


Graupmann, Verena P.


Greeson, Megan R.


Jason, Leonard A.


Keys, Christopher B.


Koocher, Gerald


Krogh-Jespersen, Sheila A.


Kuljanin, Goran


Li, Yan

Martinez-Torteya, Cecilia


McMahon, Susan D.


Mikels, Joseph A.


Quinn, Kim


Robinson, W L.


Sanchez, Bernadette


Tran, Susan T.


**Virtue, Sandra M.**


Alumni & Student Accomplishments

Biology

Abigail Leeper, BS student in Biology, received an Illinois Space Grant (ISGC) Scholarship of $3,000 for the 2016 - 2017 academic year and a $1500 research award from the Western Ag Innovations Research Award Competition.

Jesse Hacker, MS graduate student in Biology, received a research grant from the Illinois Ornithological Society for $1000 for his project: The effects of urbanization on neophobic behavior and problem-solving performance in American crows.

Chemistry

Anthony Lawando received the American Chemical Society Undergraduate Award in Organic Chemistry and the Merck Index Award.

Asa Arreola-Hester was awarded the POLYED (Polymer Education) Award by the American Chemical Society/Joint Polymer Education Committee for Outstanding Performance in Organic Chemistry.

Brandon Roman and Cesar Saucedo gave oral presentations on their research at the Louise Stokes Alliance for Minority Participation (LSAMP) 2016 Spring Symposium in STEM in February. They both won awards (1st and 2nd place for Brandon and Cesar, respectively) for the presentations.

Cesar Saucedo received the American Chemical Society Scholars Scholarship

Lauren Bejcek received the Chemist of the Year award Sponsored by the American Institute of Chemists Foundation and the Analytical Chemistry Award Sponsored by the American Chemical Society.

Srirajkumar Ranganathan received the CRC Press General Chemistry Achievement Award.

Environmental Science and Studies

Allison Williams, Environmental Science & Studies, BA 2015, is working for the BLM in southern California doing GIS work in the Mohave Desert for their Land Inventory Corps.

Angela Cornejo, Environmental Science & Studies, BA 2015, is working with NeighborSpace a non-profit land trust as a paid intern working with community gardens.
Arianna Foster, Environmental Science & Studies, BA, 2012, will receive her master's degree in Energy Policy & Climate from Johns Hopkins in June.

Ofelia Ouroumova, Environmental Science & Studies, BA, began to attend Utrecht University in The Netherlands in the Department of Geosciences.

Physics

Danielle Leppert-Simenauer, sophomore Physics major, conducted Nano and materials engineering research at University of Connecticut as part of a Research Experience for Undergraduates.

In October 2016, Nicolas Santiago, senior physics major, delivered his research presentation at 2016 SACNAS: The National Diversity in STEM Conference in Long Beach, CA. Judges recognized Santiago's work “Chinese Archaeomagnetism” with an award.

Psychology

Jarrett Lewis, Clinical-Child Psychology doctoral student, was selected to receive The MFP MHSAS predoctoral fellowship awarded through a federal grant to APA from the Substance Abuse and Mental Health Services Administration (SAMHSA), Department of Health and Human Services (DHHS). This fellowship is competitive with a selection rate of approximately 7% of applicants. It is uniquely tailored to provide Jarrett with support and training beyond what is offered by most fellowship programs and other institutions.

Darrin M. Aase, Ph. D, a graduate of our Clinical-Community Psychology doctoral program, has received an Excellence Award at Governors State University, an award that is given yearly to only 3 people for scholarship/teaching/service.

Katrina Roundfield, Ph. D, a graduate of the Clinical-Community Psychology doctoral program, was awarded a Ford Foundation Postdoctoral Fellowship.

DePaul graduate of Clinical-Community Psychology, Dr. Keisha C. Paxton (M.A. 1998, Ph.D., 2001), was recently awarded the Presidential Outstanding Professor Award for 2016 at California State University, Dominguez Hills (in the Los Angeles area). This award, known as Professor of the Year, acknowledges excellence in teaching, research, and service. Dr. Paxton is the first African American woman to earn this achievement at CSU Dominguez Hills.

Liz McConnell, Clinical-Community Psychology doctoral student, was awarded a 3-year NRSA $43,576 pre-doctoral fellowship (F-31) through NIH/NIDA. The title of the grant is "Race-related Social Contextual Factors, Substance Use, and HIV." This fellowship award from NIH will support a
3-year training plan that focuses primarily on conducting research and engaging in research-related activities. In addition to research, years 1 and 2 include coursework, clinical training, and teaching. The overall goal is to contribute to knowledge of social contextual influences on LGBT health and substance use, particularly in relation to racial disparities in HIV, through the application and integration of multilevel research methods.

**Adina Cooper**, Community Psychology doctoral student, was awarded an evaluation fellowship with the Centers for Disease Control.

**Sarah Callahan, Ph. D**, graduate of our Community Psychology doctoral program, was written up in the DePaul University student newspaper as one of five graduates who have made a big impression on campus for her work places young homeless LGBTQ women in high schools and jobs. [http://depauliaonline.com/2016/05/30/five-depaul-graduates-class-2016/](http://depauliaonline.com/2016/05/30/five-depaul-graduates-class-2016/)

**Mayra Guerrero**, Community Psychology doctoral student, received a Minority Supplement for $136,899 from the National Institute on Alcohol Abuse and Alcoholism for the years 2016-2019. We congratulate Mayra for securing this competitive award. She will be involved in the collection and the analysis of cross-sectional data representing the social networks of military veterans and non-veterans within recovery homes called Oxford Houses (the largest self-help residential program for people in recovery, with over 2,000 homes nationally, and serving over 25,000 people last year). The parent five-year NIH grant was awarded to Leonard Jason and is titled: Emergent social environments as predictors of recovery resident outcomes.

**Jaclyn Houston**, graduate of the Community Psychology doctoral program, accepted a position with the Illinois Criminal Justice Information Authority. She is supervising a team, conducting research on violence and victim services, and working with victim service providers to engage in self-evaluation.

**Shannon Williams**, Community Psychology doctoral student, was accepted as the Illinois member of the "Emerging Leaders Institute" for the Educational Opportunity Association 2016-17 cohort at the regional level within our national TRiO Programs.

**Neal Outland**, I-O Psychology doctoral student, was selected for the 2016-2017 NASA’s National Space Grant Consortium and Fellowship Program Doctoral Fellowship.

**Tyree Mitchell**, I-O Psychology doctoral student, received recognition and a monetary award to be used to further his research from the Greenleaf Center for Servant Leadership.
DePaul Discoveries is our CSH Undergraduate Research Journal. Our journal has over 14,000 downloads from 143 countries around the world.

21 College of Science and Health Undergraduate Students published their work with faculty mentorship and support in DePaul Discoveries in 2016.

Synthesis and Studies of Cyclopentadienyl Molybdenum Complexes
*Cesar Saucedo and Kyle A. Grice*

Electrochemistry and Spectroscopy of a Molybdenum Porphyrin Compound
*Jay S. Bhanot and Kyle A. Grice*

Serendipitous Discovery of a New Method for the Catalytic Synthesis of Indole-fused Benzazepanes
*Edward Gluzman and Paul A. Vadola*

Synthesis of a Small Molecule Nitrosocysteine Inhibitor to Reduce the Activity of Caspase-1
*Catherine A. Shamblen and Caitlin E. Karver*

The Role of Infectious and Stress-related Onsets in Myalgic Encephalomyelitis and Chronic Fatigue Syndrome Symptomatology and Functioning
*Andrew R. Devendorf, Abigail A. Brown, and Leonard A. Jason*

Motivation for Change in Heroin and Opiate Users
*Andrew W. Peterson, Sarah Callahan, and Leonard A. Jason*

Understanding How Plant Diversity Impacts Wildlife Species Richness in Chicago Area Forested Greenspaces
*Katie Kamba*

White Spruce (Picea glauca) Seedling Abundance and Local Environmental Characteristics
*Abigail C. Leeper and Jalene LaMontagne*

The Correlation between Basal Isoprene Emissions and Climate of the Native Range across Oak Species
*Mary J. Babiez*
Host-parasite Relationships Between the Copepod Naobranchia lizae and its Host (Striped Mullet, Mugil cephalus): A Description of Morphological Development  
*Sara R. Teemer*

Decomposition of Horse Manure (as a Surrogate for Human Feces) in Three Soil Media and the Implications of Manure Leachate for the Germination of Radish Seeds  
*Edwin J. Castaneda and Caitlin Vaughn*

Comparison of Soil Phosphorus Concentration in Farm Restored and Reference Wetlands in Lake County, IL  
*Catherine L. Pease*

Implications of Manipulations of Soil Quality on the Growth of European Buckthorn (Rhamnus cathartica) in a Greenhouse  
*Sam L. Pepper and Liam Heneghan*

Combinatory Effect of Changing CO2, Temperature, and Long-term Growth Temperature on Isoprene Emissions  
*Michael Cole*

Quantifying Greenhouse Gas Flux of Restored vs. Unrestored Wetlands: A Case Study at Prairie Wolf Slough  
*Matthew Connors and Beth Lawrence*

Greenhouse Gas Flux Response to Harvest of Typha x Glauc in a Great Lakes Coastal Wetland  
*Olivia Johnson*

Using a High-Altitude Balloon Platform to Observe and Measure Ozone Uptake over Agricultural Landscapes in Central Illinois  
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In Search of Exoplanets  
*Krzysztof J. Skwirut, Samuel Montag, Kayla Lynch, and Justin A. Potvin*

Wavelet Packet Analysis of Amino Acid Chain Sequences in the Proteins of Mesophile and Thermophile Bacteria  
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Instrumentation of a Self-Correcting Data Acquisition System for Ultrafast Lasers  
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How to IMPRESS: Coordinating a Large Video Data Set for a Collaborative Project  
*Noah-Kee Marks and Rita Dawod*
Megalolamna Paradoxodon: A New (Extinct) Shark Discovered by Kenshu Shimada and Colleagues

Kenshu Shimada, recipient of the 2016 Excellence in Research Award, and his colleagues have identified and named a new extinct shark. Fossilized teeth belonging to the extinct shark species were found in Japan, Peru, North Carolina, and California.

“Megalolamna paradoxodon is the name of a new extinct shark described by an international research team who based their discovery on fossilized teeth up to 4.5 centimeters (1.8 inches) tall. The newly identified fossil shark lived during the early Miocene epoch about 20 million years ago and belongs to a shark group called Lamniformes, which includes the modern-day great white and mako sharks.

Certain dental features suggest its otodontid affinity, but in many other aspects, teeth of the new fossil shark look superficially like over-sized teeth of the modern-day salmon shark that belongs to the genus Lamna — hence the new genus Megalolamna, the researchers noted. The new species name ‘paradoxodon,’ or paradoxical teeth, comes from the fact that the shark appears to emerge suddenly in the geologic record with a yet unresolved nearly 45-million-year gap from when Megalolamna possibly split from its closest relative Otodus.

Although smaller than members of the megatoothed lineage containing ‘megalodon’ that reached well over 10 meters (33 feet), Megalolamna paradoxodon is still an impressive shark estimated to be minimally equivalent to the size of a typical modern-day great white, roughly 4 meters (13 feet) in length. Living in the same ancient oceans megatoothed sharks inhabited, Megalolamna paradoxodon had grasping-type front teeth and cutting-type rear teeth likely used to seize and slice medium-sized fish.

“It’s quite remarkable that such a large lamniform shark with such a global distribution had evaded recognition until now, especially because there are numerous Miocene localities where fossil shark teeth are well sampled,” said Shimada, lead author of the study.

You can read the entire DePaul Newsroom Press Release here. You can also read the paper announcing this discovery here.
2016 In Review: Statistics

College Enrollment has remained fairly steady over the last five years.

The number of graduates in 2016 was the highest number in five years.
Undergraduate Class of 2016
College of Science and Health

Where do DePaul students go after graduation?

Career Outcomes Rate
Bachelor’s Degree Recipients

- Employed 66%
- Continuing education 27%
- Not seeking 1%

93%

7% of degree recipients are seeking employment

2016 saw a significant percentage-point increase in those continuing their education, especially among graduates in mathematics and health sciences. This is in keeping with the clinical goals of many of our students and the support they receive through the pre-health program.

Employment Details

- 72% of employed graduates are in a job related to their degree
- 72% of employed graduates are in new or better positions

Top Industries

- Health Care
- Retail
- Education
- Non-Profit

Career Outcomes Rate and Median Salary by Major*

<table>
<thead>
<tr>
<th>Major</th>
<th>Career Outcomes Rate</th>
<th>Median Salary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Biology</td>
<td>98%</td>
<td>$37,500</td>
</tr>
<tr>
<td>Chemistry</td>
<td>100%</td>
<td>N/A</td>
</tr>
<tr>
<td>Environmental Science &amp; Studies</td>
<td>97%</td>
<td>$41,000</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>75%</td>
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<td>Mathematics</td>
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<tr>
<td>Physics</td>
<td>94%</td>
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</tr>
<tr>
<td>Psycholoov</td>
<td></td>
<td>$40,000</td>
</tr>
</tbody>
</table>

Overall median salary is $38,000

* Only majors with sufficient sample sizes are represented in the report graphics.

Thanks to the Career Center for this information!
The Class of 2016 was surveyed about their post-graduation destinations at graduation and six months after degree completion. Data are also gathered from public record via LinkedIn. The knowledge rate is the percentage of the graduating population for which we have data.

Knowledge Rate

86%

Representative List of Graduate and Professional Schools

Adler University  Loyola University Chicago  Rutgers University  University of Michigan
DePaul University  Northwestern University  Stritch School of Medicine at Loyola University Chicago  Vanderbilt University
Governors State University  Rosalind Franklin University of Medicine and Science  University of Chicago School of Social Service Administration  Washington University in St. Louis
Illinois College of Optometry  John Hopkins University  University of Illinois at Chicago  University of Illinois at Chicago

Representative List of Graduate Programs

Applied Mathematics Biomedical Sciences  Chemistry Counseling  Doctor of Chiropractic  Electrical Engineering  Environmental/Atmospheric Sciences  Epidemiology Forensic Psychology  Health Communication  J.D. Program  Master’s Entry to Nursing Practice  Master’s in Art Therapy  Master’s in Counseling  Master’s in Nutritional Science and Coordinated Dietetics
Master of Science in Human Resources  Master of Science in Neuropharmacology  Medical School Occupational Therapy  Optometry  Pharmacy  PhD Neuroscience  PhD Program in Immunology  Physical Therapy  Physician Assistant  Plant Pathology Public Health  Social Work  Web Development

Representative List of Employers

3M  Abbott Accenture Allstate  Alzheimer’s Association Amazon  Ann & Robert H. Lurie Children’s Hospital of Chicago  Athleticlo Physical Therapy  Center for Autism and Related Disorders  Children’s Home + Aid City Farm  Chicago Communities In Schools  Comprehensive Early Autism Services  DePaul University Groupon  Illinois Bone & Joint Institute  KWW Engineering Consultants  Lincoln Park Zoo  Metropolitan Family Services  National Hellenic Museum  Northwestern University Particle Technology Labs Physio Partners  Rehabilitation Institute of Chicago  Rush University Medical Center  Southwest Airlines  Tesla  U.S. Environmental Protection Agency (EPA)  University of Arizona University of Chicago Medicine  Vector Disease Control  International/ Chicago Public Health Department  Walgreens  Xerox

Representative List of Positions

ABA Therapist  Enrollment Coordinator Family Advocate Farmer  Field Scientist Field Technician  Financial Analyst  Health Service Manager ICQA  Problem Solver Laboratory  Manager  Leadership Development Associate  Marketing Specialist  Microbiology Outside Sales Representative
ORISE Fellow, Integrated Environmental Strategies Division Patient Care Coordinator  Price Analyst  Product Specialist  Quality Control Analyst  Quality Control Microbiologist  Reliability Analyst  Research Assistant  Research Coordinator  Science Education Fellow  Software Tester  Sterile Processing Tech  Talent Acquisition Consultant-Campus Recruiting  Youth Development Coach
Thank you to all CSH Faculty, Staff, and Students.

Without your hard work and dedication, there would be no accomplishments to showcase here.