# 2014 CSH Annual Report

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A Letter from the Dean

A Letter from Dean Gerald P. Koocher

Last year brought many transitions and opportunities for the College of Science and Health (CSH). Our enrollments continued to grow substantially, we increased our laboratory capacity significantly, we said “good-bye” to many dedicated retiring faculty and staff members, and we began focusing on an updated strategic plan for the College. Our undergraduate population has held steady and graduate enrollments have grown, led by the expansion of our School of Nursing programs under the leadership of Professor William Cody. The Trustees validated our 2013 business plan, and authorized the build out of new laboratory space in McGowan South and Byrne Halls. With the skilled management of the DePaul facilities team and the expert leadership of Associate Dean Rick Niedziela, the space was completed and ready for occupancy in December, 2014. Our capacity to expand lab-based teaching and to support faculty wet lab research will foster continued growth. We also bid a fond farewell to a significant number of our colleagues who took advantage of the early retirement option offered last spring. We will replace about half of them with new hires by September, 2015. Based on continuing strong enrollment numbers, we hope to hire additional faculty members for the fall of 2016.

A few dozen of our faculty and staff joined a strategic planning exercise, beginning in late 2014. We began by looking at our prior strategic plan data and focused on ideas for refining and growing our academic programs. Some of the ideas raised at these meetings have led to action steps, including a plan to fast track DePaul undergraduates into our nursing graduate program, a new chemistry graduate program focused on polymers/coatings, and plans to enhance our applied mathematics program by starting a statistics consulting lab. I feel confident that our 2015 Annual Report will document progress in all these arenas and more.

These details barely scratch the surface of our progress. I encourage you to review this report in detail, with special attention to the strong research record of our faculty and substantial engagement via education and public service with the Chicagoland community. We have a lot to be proud of and a great deal to look forward to.

Gerald P. Koocher
This 2014 Annual Report was prepared by Mona Shattell, PhD, RN, FAAN, and Abigail Ingram, and made possible by the efforts and contributions of the faculty and staff of the College of Science and Health.

Special thanks to

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Director of Advising and Student Services, CSH Advising and Student Services

Dominika Chafai,
Business Manager, College of Science and Health

William Cody,
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Craig Klugman,
Chair, Department of Health Sciences

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Dean, College of Science and Health

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Assistant Professor, Department of Environmental Science and Studies

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Victoria Simek,
Associate Director, STEM Center

Sandra Virtue,
Associate Professor, Department of Psychology
Director of Online Learning, College of Science and Health

Jesus Pando,
Chair, Department of Physics
Leadership

The College of Science and Health 2014 Leadership

The College of Science and Health is comprised of eight departments and schools and five centers. In 2014, under the direction of Dean Gerald Koocher, the college began strategic planning initiatives to strengthen programs and facilitate future planning with the help of CSH leadership and thought leaders. The following faculty serve in leadership roles for DePaul’s College of Science and Health.

CSH 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 Instruction
Mona Shattell, PhD, RN, FAAN  Associate Dean for Research & Faculty Development
Margaret E. Silliker, PhD  Associate Dean for Graduate Studies

Departments, School and Centers

Biological Sciences  Chair, John Dean, PhD
Chemistry  Chair, Lihua Jin, PhD
Environmental Science & Studies  Chair, Liam Heneghan, PhD
Health Sciences  Chair, Craig Klugman, PhD
Mathematical Sciences  Chair, Ahmed Zayed, PhD
Physics  Chair, Jesus Pando, PhD
Psychology  Chair, Susan McMahon, PhD
School of Nursing  Director, William Cody, RN, PhD, CNE, FAAN
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
Advisory Council

The Advisory Council, a volunteer group comprised of alumni and friends of the College, 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 2014 College of Science and Health Advisory Council Members:

**Patricia G. Becker**, MBA (MBA ’79)
Principal Consultant
PGBEC Consulting

**James S. Burns**, MBA (MBA ’73)
President and CEO
AssureRx Health

**Linda C. Degutis**, DrPH, MSN (NSG BS ’75)
Consultant

**Therese Fitzpatrick**, PhD, RN (NSG BS ’75/MS ’84)
Principal, Healthcare Transformation Services
Philips Healthcare

**Nancy L. Jones**, MD (BIO BS ’74)
Professor of Pathology
Chicago Medical School

**Katherine J. Kim**, MS, JD (CHE MS ’97, JD ’04)
Principal
Spark IP Law

**James Koziarz**, PhD (CHE BS ’71)
President and Chief Executive Officer
Rubicon Genomics, Inc.

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

**Thomas J. Murphy**, PhD
Professor of Chemistry, Emeritus
DePaul U. Depts. of Chemistry & Env Sci

**Dennis A. Schenborn** (BIO BS ’75)
Chief of Planning (retired)
Wisconsin Department Natural Resources

**Elaine T. Schenborn**, PhD (BIO BS ’75)
Senior Project Manager, R&D
Promega

**Stephen Sichak, Jr.**, MS (CHE BS ’78/MS ’80)
Senior Vice President
Becton Dickinson

**Robert P. Steele**, JD (PSY BA ’67, JD ’77)
Chief Legal Counsel (retired)
Oscar Mayer - Kraft Foods Group

**Maksim Zeldin**, FSA, MAAA (MAT BS ’07)
Senior Actuarial Associate
Allstate Insurance Company

(Parentheses Denote DePaul Degrees)
CSH Enrollment

Enrollment in the College of Science and Health programs continues to show overall growth.

During the 2013-14 academic year, the College of Science and Health enrolled

2,634 Undergraduates
776 Graduates
3410 Total Students

In 2010, departments in the College of Science and Health accounted for 12% of the total undergraduate enrollment at the university. In 2014, the College of Science and Health made up 16% of DePaul’s undergraduate enrollment. The first year retention rate of full-time freshman in the 2013 cohort was 83.6%.

These data reflects the new freshman and overall undergraduate and graduate student enrollment from 2010-2014.
New Program Growth

A selection of enrollment figures for new CSH programs since 2009 can be found in the chart below.

<table>
<thead>
<tr>
<th>Program</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>BA in Environmental Studies</td>
<td>16</td>
<td>34</td>
<td>64</td>
<td>87</td>
<td>85</td>
<td>92</td>
</tr>
<tr>
<td>BS in Health Sciences</td>
<td></td>
<td>117</td>
<td>441</td>
<td>651</td>
<td>732</td>
<td></td>
</tr>
<tr>
<td>Doctorate in Nursing Practice</td>
<td></td>
<td></td>
<td></td>
<td>39</td>
<td>54</td>
<td></td>
</tr>
<tr>
<td>MS in Pure Mathematics</td>
<td>4</td>
<td>10</td>
<td>10</td>
<td>20</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS in Math Teaching</td>
<td></td>
<td>2</td>
<td>13</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

In only its third year, the Health Sciences major has become the second most popular major designated by incoming freshmen at DePaul University. Health Sciences is one of three majors that the College of Science and Health offers that are in the top ten freshman majors at DePaul.

Top Ten Freshman Majors at DePaul

<table>
<thead>
<tr>
<th>Major</th>
<th># Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accounting</td>
<td>171</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>133</td>
</tr>
<tr>
<td>Psychology</td>
<td>131</td>
</tr>
<tr>
<td>Digital Cinema</td>
<td>128</td>
</tr>
<tr>
<td>Marketing</td>
<td>126</td>
</tr>
<tr>
<td>Finance</td>
<td>122</td>
</tr>
<tr>
<td>Biological Sciences</td>
<td>110</td>
</tr>
<tr>
<td>Computer Science</td>
<td>84</td>
</tr>
<tr>
<td>Public Relations and Advertising</td>
<td>84</td>
</tr>
<tr>
<td>Computer Game Development</td>
<td>80</td>
</tr>
</tbody>
</table>

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Post-Graduation

The following chart shows the rates of student employment or enrollment in graduate school from several departments in the College of Science and Health.

**2013 CSH Graduates Employed/In Graduate School**

<table>
<thead>
<tr>
<th>Department</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mathematics</td>
<td>92%</td>
</tr>
<tr>
<td>Chemistry</td>
<td>89%</td>
</tr>
<tr>
<td>Environmental Science and Studies</td>
<td>86%</td>
</tr>
<tr>
<td>Psychology</td>
<td>86%</td>
</tr>
<tr>
<td>Health Sciences</td>
<td>85%</td>
</tr>
<tr>
<td>Biology</td>
<td>79%</td>
</tr>
</tbody>
</table>

From 2011-12 to 2012-13, there was an increase of almost 30% in job postings with science, research, and healthcare functions through the DePaul Career Center, indicating a growing need for students in science and health fields. The Career Center tracks post-graduation employment for each of the university’s colleges, including College of Science and Health Employment Outcomes.

85% of 2013 CSH bachelor’s degree recipients were employed or in graduate school six months after degree completion.

2013 CSH graduates saw the highest overall employment levels since the college was founded.
Chicago Connections

Representative examples of the College of Science and Health engagements with DePaul’s home city

The DePaul Family and Community Services Center (FCS), which served over 600, mostly low-income, urban, ethnic-minority children and their families during Fiscal Year 2014, strengthened existing partnerships with Manierre Elementary School and Chicago Quest Charter School by establishing contracts for behavioral health services and consultation.

The School of Nursing continues to offer the only MS in nursing program known nationally to integrate community-based service learning (CbSL) progressively throughout the master’s entry to nursing curriculum. The program engages 60+ Cook and Lake County community-based organizations, working closely with the Steans Center. Multiple site-based projects and multiple manuscripts are in development. Student and community partner feedback is positive, and increasingly so over time. 300 students are participating, contributing approximately 14,000 service-learning hours annually. Dr. Karen Larimer coordinates the program.

Ellen Chiocca, School of Nursing, is implementing a "No Hit Zone" in the Sylvia Center, a shelter in the Uptown neighborhood, which aims to reduce violence against children by educating all providers, nurses, and staff about de-escalation techniques.

The STEM Center, with funding from the Bill & Melinda Gates Foundation, is partnering with the Chicago Public Schools (CPS) Department of Math and Science to form a Virtual Community of Practice for roughly 1,800 middle school CPS math teachers. The STEM Center continues to partner with The Chicago Community Trust to build and expand the capacity of CPS teachers to provide high quality math and science instruction aligned with the Common Core State Standards for Mathematics (CCSSM) and the Next Generation Science Standards (NGSS). This work, in its third year in math and its second year in science, reaches over 100,000 CPS students and is funded at approximately $900,000/year.
W. LaVome Robinson, Leonard A. Jason, and Sharon Lambert, Psychology, effected the Violence Prevention and Intervention Project, which aims to reduce African American youth violence by examining the impact of group-delivered, culturally-grounded, cognitive-behavioral intervention on enhancing resilience and increasing adaptive coping strategies. The research teams also includes April Timmons, PhD, Jocelyn Droge, MA, Roberto Lopez, MA, Sadiq Y. Patel, MSW, and Christopher Whipple, BS (all pictured above). Dr. Robinson’s culturally adapted coping with stress course (A-CWSC) is a cognitive-behavioral group intervention designed to develop and enhance African American youth’s skills for coping with stress, using standard cognitive-behavioral strategies such as relaxation training and cognitive restructuring. The project emphasizes the identification of stress unique to the day-to-day experiences of the youths in Chicago and options for reducing stress in order to bolster at-risk youths’ personal competencies needed to offset their vulnerability for aggression and violence.

The Cities Project, directed by Kathryn Grant, Psychology, served 60 Chicago Public School students in 2014. The Cities Project Team is led by DePaul Psychology Department faculty and students and includes administrators, teachers, students, and parents at Chicago Public Schools and professors and students at Loyola University, Northwestern University, the University of Chicago, and the University of Illinois at Chicago. Events like the Cities Project Run spread awareness and further engage the Chicago community.

The Cities Project conducted research on how to facilitate success in Chicago Public School students, 85% of whom are low-income and fewer than 15% of whom graduate from a four-year college. 2014 research results revealed a) compared to a control group, students in an offshoot of the project, called the Cities Mentor Project, had fewer behavior problems and more prosocial and leadership skills (as reported by teachers, parents, and the students themselves), and b) the more time youth spent in Cities Mentor Project activities, the more positive academic skills reported by their parents and the higher their reading scores.

In 2014, the Cities Mentor Project began a partnership with DePaul Family and Community Services to provide participating youth with additional support. The Cities Project Team developed the Cities Mentor Project, connecting Chicago Public School students with DePaul University students who a) taught strategies for engaging with academic challenges and coping with stress that impedes learning, b) advocated for youth academically, and c) connected youth to after-school programming for additional support. The Cities Mentor Project made a long-term commitment to youth, supporting them from the 4th grade all the way through their first year in college.

In 2014, the College of Science and Health strengthened ties with DePaul College Prep (formerly Gordon Technical High School). Phillip Funk, Associate Dean for External Relations, hosted a visit by DePaul College Prep faculty in December, which included a tour of the newly constructed and equipped lab facilities in McGowan South.
International Reach

The College of Science and Health made global connections in 2014, hosting and traveling abroad

DePaul and the College of Science and Health hosted the 26th International Conference on Formal Power Series and Algebraic Combinatorics (FPSAC) on June 29 - July 3, 2014, led by math faculty members Bridget Tenner, Conference Chair, and T. Kyle Petersen, member of the Organizing Committee.

Ron Graf and Joseph Tariman, of the School of Nursing, led the 2014 School of Nursing Czech Republic Study Abroad with 13 graduate nursing students from both campuses (DePaul University and Rosalind Franklin University of Medicine and Science). The 14-day trip included site visits to two medical centers including various specialty units, along with a visit to a Higher School for Nursing Program.

Young-Me Lee, School of Nursing, serves on the Global Korean Nursing Foundation (GKNF) Board, 2011- present, as Treasurer, 2013-present, and Chair of the Scholarship Committee, 2014.

Verena Graupmann, Psychology, conducted research in Milan, Italy, during the fall, in cooperation with colleagues at the Università Degli Studi Milano Bicocca. She also collaborated on research with Sarita Silveira, a postdoctoral student from the University of Munich, funded by the DAAD (German Academic Exchange Service).

Verena Graupmann, Susan McMahon, and Pablo Gomez, Psychology, gave invited talks at the University of Sussex in the UK, All Hallows College in Dublin, Ireland, and the University of Ghent in Belgium, respectively. Alice Stuhlmacher, Psychology, is collaborating with German colleagues on negotiation and gender. Their work was featured in a recent APA press release.

Joseph Ferrari, Psychology, was an Honorary Research Scholar in March-April, 2014, at All Hallows College, Dublin, Ireland. He gave invited presentations on community psychology, Vincentian values, academic procrastination, and chronic procrastination for over 400 attendees. He was also an International Ambassador for PSI CHI.

The Psychology Department welcomed visiting scholar Suzhen Liu, who is working with professor emerita Karen Budd. Dr. Liu is from the Psychology Department of Weifang Medical University, Shangdong, China.
The Department of Biological Sciences

A diverse and intellectually stimulating research environment

The Department of Biological Sciences provides courses for biology majors, minors, and non-majors from all areas of DePaul University. The department has an undergraduate program of over 600 students and a graduate program leading to a Master of Arts or Master of Science. The department offers field experiences, opportunities for laboratory research, journal clubs, student organizations, research seminars, among other learning opportunities outside of the classroom.

In 2014, several faculty members’ commitment to student learning and research was recognized at the college and university levels. Joanna Brooke received the “Faculty Mentor of the Year” award for the College of Science and Health, and Timothy Sparkes was the 2014 CSH Excellence in Teaching Award recipient. More information on Dr. Sparkes’ innovative and interactive teaching methods can be found in this report.

At the 2014 Academic Convocation, the Department of Biological Sciences’s Dorothy Kozlowski was inducted into the Society of Vincent de Paul Professors. This organization recognizes faculty who “enhance the educational mission of the University in ways consistent with its distinctive values, such as Vincentian personalism, social justice, and service.”

Faculty in the Department of Biological Sciences received $425,263 in grant funding in 2014. Areas of research and scholarship in the department include aquatic biology, cancer biology, cell biology, developmental biology, ecology, evolutionary biology, genetics, immunology, microbial ecology, molecular biology, neurobiology, paleobiology, physiology, and reproductive biology.

The Department of Biological Sciences continued featuring internal and external researchers in their research seminars, which took place Friday afternoons throughout 2014. These seminars address trends in the field and specific research conducted by students and faculty at DePaul.

The Department of Biological Sciences publishes a newsletter called The Niche to highlight department news and spotlight faculty, students, staff, and alumni in the department.
The Department of Chemistry

*Rigorous training in the chemical sciences for undergraduate and graduate students*

The Department of Chemistry offers a rigorous training in the chemical sciences to its students, many of whom go on to pursue advanced degrees in the field or elsewhere such as medical school, dental school and pharmacy programs. Undergraduate and graduate students have the opportunity to work on research projects with faculty members.

The completion of the McGowan South facility expansion in 2014 added four teaching labs, including a general chemistry lab, a physical chemistry lab, a second organic chemistry lab, and a flexible lab teaching space. Chemistry labs are equipped with modern instrumentation to support research activities. The department keeps a list of their available instrumentation for students’ and faculty’s reference.

The Department of Chemistry has an active faculty, researching in the subfields of bioanalytical chemistry, biochemistry, biophysical chemistry, biophysics, chemical physics, computational chemistry, geochemistry, inorganic chemistry, medicinal chemistry, organic chemistry and synthesis, physical chemistry, and polymer chemistry.

Faculty in the Department of Chemistry had $33,827 in new grant funding in 2014.

The Department of Chemistry supports students with a variety of events and networking opportunities. In February, Chemistry held a Research Lab Open House, and in September the department presented a panel, “The Secrets to Succeeding in Chemistry,” to give students advice on how to be successful as students and future chemists. Chemistry faculty and staff held an event in October to facilitate engaging students in research and employment options. The Annual Chemistry Research & Awards Symposium 2014 was held in June.
The Department of Environmental Science and Studies

Engaging with the study of environmental sciences from Chicago’s unique urban ecosystem

The Department of Environmental Science and Studies provides a supportive atmosphere based in field experiences that stimulates analytical thinking and encourages a broad perspective in learning. Faculty aim to challenge students with practical and meaningful hands-on experiences.

The Department of Environmental Science and Studies continued their commitment to student field experiences throughout 2014. In February, students toured the Growing Power Iron Street Farm as well as the Edible Earth at the Vincent and Louise House. Environmental Science students visited the Aldo Leopold shack in April, and hosted the Green Teens from the Gary Comer Youth Center in August for experiments with fuel cell cars. The photo on the right shows a lakefront tour that Margaret Workman and Jim Montgomery took their Discover Chicago class on in September.

Students presented their original research at the 2014 Environmental Science and Studies Undergraduate Research Symposium held in June 2014.

Alumni of the Department of Environmental Science and Studies continue to expand upon their learning at DePaul. Several graduates have started produce and nutrition companies, attesting to the practical and entrepreneurial knowledge gained while studying at the College of Science and Health.

Students from the department work at the DePaul Urban Garden, which held a weekly Farm Stand at the Ray Meyer Fitness Center on Thursdays in 2014.

Mark Potosnak continues to serve as a Catholic Climate Change Ambassador for the Catholic Climate Covenant and does presentations to various parishes and other Catholic groups.

Department Chair Liam Heneghan received the CSH Excellence in Research award in recognition of the quality, originality and impact of his research on land management practices and biodiversity outcomes in Chicago’s openlands.
DePaul’s Family and Community Services

**A full-service behavioral health clinic on the Lincoln Park Campus**

The following list exemplifies a sample of work done in the Vincentian tradition by DePaul’s Family and Community Services in 2014.

DePaul Family and Community Services served over 600, mostly low-income, urban, ethnic-minority children and their families during Fiscal Year 2014 (July 1, 2013-June 30, 2014).

72 Chicago Public School students in 2 elementary schools participated in the trauma-informed “Welcoming Schools” project that provided prevention interventions in schools identified for receiving students from schools that were closed during the previous fiscal year.

Approximately 2500 hours of individual therapy/community support were provided to clients.

Approximately 1800 hours of family therapy were provided to families.

15 doctoral level psychology students, 3 undergraduate psychology students, 2 masters social work students, and 2 post-doctoral psychology students trained in the clinic.

Family and Community Services had planning meetings for Masters Entry to Nursing Practice students to provide health promotion services in FCS during FY15.

Family and Community Services strengthened existing partnerships with Manierre Elementary School and Chicago Quest Charter School by establishing contracts for behavioral health services and consultation.

Family and Community Services continued to diversify its revenue mix by beginning to accept Blue Cross PPO insurance and also in its development of Continuing Education Workshops.

97 children participated in social skills groups at Chicago Lights/4th Presbyterian Church’s Summer Day program in 2014.

85 comprehensive Psychological Evaluations were completed by Family and Community Services, mainly funded through State Medicaid and the Department of Child and Family Services.
The Department of Health Sciences

Teaching students to solve health-related problems

The Department of Health Sciences draws on both the natural and social sciences to create one of the few undergraduate programs in the country to incorporate a team-based approach to teaching and learning which is quickly becoming the industry standard. The department faculty teach students to focus on the social and societal implications of health care on individuals and communities.

The minor in Public Health Studies was approved for the Department of Health Sciences in 2014.

TheBestSchools.org ranked the Health Sciences program as the #7 Health Sciences program in the country. Department Chair Craig Klugman and Assistant Professor Sarah Connelly were both interviewed by the DePaulia on this national recognition.

The Department of Health Sciences received extensive media attention throughout 2014. Sarah Connolly was interviewed on WGN News on ebola on two occasions (in September and October). Craig Klugman was featured in “Bioethicist discusses ethical questions raised by 3-person embryo technique” on WGN News in March. Klugman presented at the Community-Campus Partnership for Health meeting and to the Chicago Memorial Association on advance care planning, and in May, Klugman had an interview with the AARP and Reuters on advance directives. Klugman was featured in a Mobile Learning: Teaching Commons video on using polling software. Klugman was quoted in the National Journal and the Connecticut Mirror on quarantine issues related to the ebola outbreak in October. In November, Klugman was quoted in a Medical Ethics Advisor story on Jahi McMath and accepting death by neurologic criteria. Klugman also did a live Facebook chat for KCRW, the NPR affiliate in Southern California.

Sarah Connolly received a travel award to the American Society for Biochemistry and Molecular Biology Conference in April. Connolly also presented at the Experimental Biology Conference in San Diego in April.

Jessica Jerome and Craig Klugman presented at the Academy for Professionalism in Health Care Conference in May.

Michele Shade-McCay completed the DePaul Teaching & Learning Certificate Program. McCay is also a DePaul Women of Action and Spirit Award honoree, and was filmed for a Teaching Commons video.

Craig Klugman was named Honored Alumnus of 2014 in Science & Medicine by the University of Texas Alumni Association.
The Department of Mathematical Sciences

An active research-based learning community

The Department of Mathematical Sciences offers bachelors and masters programs with courses in mathematics, statistics, and actuarial science, creating a research-rich environment for CSH students.

Mathematics faculty actively research in a range of areas, including abstract algebra (Allan Berele, Jeffrey Bergen, Andrew Carroll, Stefan Catoiu, William Chin, Christopher Drupieski, and Yevgenia Kashina), analysis (Enrico Au-Yeung, Karl Liechty, Gang Wang, and Ahmed Zayed), combinatorics (T. Kyle Petersen and Bridget Tenner), dynamical systems (Ayse Sahin and Ilie Ugarcovici), number theory (Nick Ramsey), probability theory (Karl Liechty and Gang Wang), and statistics (David Degras, Juan Hu, Claudia Schmegner, and Gang Wang).

Department Chair Ahmed Zayed was chosen as the chair of the Steering Committee for the SampTA (Sampling Theory and Applications) international conference for mathematicians, engineers, and applied scientists.

In May 2014, the Department of Mathematical Sciences hosted a mini-conference entitled “Measurable dynamics: a celebration of the contributions of Andres del Junco.”

In October 2014, the Department of Mathematical Sciences hosted the Algebra, Geometry and Combinatorics Day (AlGeCom), a meeting of mathematicians with interests in algebra, geometry and combinatorics from DePaul as well as the University of Illinois, Purdue University, Indiana University-Purdue University Indianapolis (IUPUI), Loyola University, and other nearby universities.

J. Marshall Ash, Jonathan Cohen, and Susanna Epp were awarded the Via Sapientiae Award at Academic Convocation in September 2014. The Via Sapientiae Award is the highest academic award that DePaul University bestows upon a member of the university community, recognizing faculty and staff who have made distinguished contributions to the university.

The Department of Mathematical Sciences tracks students’ original research presented at conferences and published in professional journals.

The Department of Mathematical Sciences hosted regular seminars and colloquia featuring DePaul faculty and external speakers on general interest mathematics topics throughout 2014.
DePaul’s School of Nursing offers innovative programs that emphasize excellence, health care research, leadership training and interpersonal skills development with a commitment to exceptional patient care.

Several School of Nursing faculty received honors in 2014. Director William Cody was elected president of the Illinois Association of Colleges of Nursing, the 38-member organization of baccalaureate-and-higher nursing schools in the state. Linda Bensfield, Nursing Simulation and Lab Coordinator, was selected to participate in the year-long Leadership Development Program for Simulation Educators, offered through the National League for Nursing.

New faculty member Elizabeth Florez was appointed to the National Education Committee for the National Association of Hispanic Nurses.

Young-Me Lee received the Special Leadership Award from Korean Nurses Association in Chicago. Dr. Lee has been a member of the Korean Nursing Association in Chicago (2007-present) and is Chair of the Education Committee (2010-present). Dr. Lee also serves on the Global Korean Nursing Foundation (GKNF) Board (2011-present) as Treasurer (2013-present) and Chair of the Scholarship Committee (2014).

Lori Thuente was invited and delivered Grand Rounds to Northwestern Lake Forest Hospital in Fall 2014.

Matthew Sorenson received the award for Best Scientific Poster, for “Disruption of Cytokine Pathways in Chronic Fatigue Syndrome,” at the 11th IACFS/ME Biennial International Research Conference.

School of Nursing faculty illustrate a deep commitment to service. In 2014, Mona Shattell served on the Board of Directors of Turning Point Behavioral Health Center, Skokie, IL, on the Board of Directors of the Lived Experience Research Network, Baltimore, MD, and on the Board of Directors of Chicago Hearing Voices, IL. Barbara Harris served on the Board of Directors of Chicago Hearing Voices, IL, as well. Ellen Chiocca co-chaired a planning committee for a 2-day conference, “Creating a Non-Violent Future: Children’s Rights and Advances in Protection from Corporal Punishment,” sponsored by Loyola University Center for the Human Rights of Children in May 2014.

Mona Shattell and Matthew Sorenson participated in the Vincentian Heritage Tour in August 2014.
The Department of Physics

A full, rich curriculum in undergraduate and graduate physics education

The Department of Physics offers an undergraduate program with concentrations in standard physics and computational physics, dual engineering degrees in conjunction with the Illinois Institute of Technology, and a Master's degree in Applied Physics.

The two largest teaching spaces in the Physics department were completely renovated in 2014, allowing a shift to teaching the curriculum in a studio format. This style of teaching eliminates the separate lab/lecture divisions that are common in the natural sciences; instead, labs, lectures, and other activities are integrated into each meeting time.

First year course sequences were revamped in 2014 in order to teach in a studio format. Entirely new labs, activities, and other types of assignments were generated by the faculty to accommodate our new teaching spaces. Many upper division courses were also greatly modified to operate in the integrated studio format.

Faculty in the Department of Physics had over $250,000 in grants in 2014.

Physics faculty members generated 22 invited oral presentations and three refereed articles over the course of 2014.

The Physics department continues as the lead support department for SACNAS (Society for Advancement of Hispanics/Chicanos and Native Americans in Science). This national organization seeks to broaden minority representation in the sciences. With over 100 chapters nationwide, the DePaul SACNAS chapter won a national award for the third straight year (Outstanding Community Service).

Five posters representing the work of 10 Physics undergraduates were presented at DePaul’s annual Science Showcase.

Graduating seniors from the Department of Physics were accepted to PhD programs at University of California, Berkley; The University of California, Davis; Boston University; and The University of Vermont.
The Psychology Department

Scholarship, professionalism, & community engagement

The Psychology Department develops students as scholars, professionals and lifelong learners who are meaningfully engaged in the community. The award-winning faculty provides students with knowledge, skills and experiences consistent with the science and application of psychology.

The Center for Community Research brought in over $2 million in grants over the course of 2014. Among the notable grants, Leonard Jason was awarded a grant by the National Institute of Allergy and Infectious Diseases (NIAID) to conduct research on chronic fatigue syndrome (CFS) following infectious mononucleosis in college students.

Several faculty members in the Psychology Department received prestigious awards in 2014. In January, Joseph Ferrari was named Dow Chemical Visiting Scholar at Saginaw Valley State University in Saginaw, Michigan.

Bernadette Sanchez was awarded the “2014 Ethnic Minority Mentoring Award for APA Division 27: Society for Community Research and Action” in January 2014 from the Society for Community Research and Action (SCRA) of the American Psychological Association. This award recognizes achievement in mentoring ethnic minority students.

During Academic Convocation in September, Karen Budd, Linda Camras, Shel Cotler, and Midge Wilson were awarded the Via Sapientiae Award. This is the highest academic award that DePaul can bestow to recognize “distinctive and extraordinary contributions” to the university.

Gerald Koocher was appointed as Chair, Board of Trustees, Trust Insurance.

Jocelyn Carter was appointed to the Illinois Board of Higher Education and will be heading a task force focusing on reducing education gaps for military and first generation college students.

In December 2014, Leonard Jason was awarded the 2015 American Psychological Association Award for Distinguished Professional Contributions to Applied Research. In addition, he was invited to testify at a hearing of the Institute of Medicine in Washington, D.C. on the ME/CFS case definition.
The DePaul STEM Center supports high quality primary and secondary STEM education for students through professional development of teachers via lectures and opportunities for a diverse group of students.

The STEM Center organizes the annual Natural Sciences, Mathematics, and Technology Undergraduate Research Showcase. Every November, students gather in the McGowan South atrium to present their current and recently completed research conducted in coordination with DePaul faculty. In 2014, 140 students presented 97 posters, representing 11 departments from across the university, including Biological Sciences, Chemistry, Environmental Science and Studies, Geography, Health Sciences, Physics, Mathematical Sciences, Psychology, College of Digital Media, and Anthropology, plus students who participated in research at Rosalind Franklin University of Medicine and Science and recipients of the Dean’s Undergraduate Fellowship. This event, initiated in 2003, benefits students seeking to strengthen their research through informed feedback, gain public speaking experience, and take an important first step on the research career path.

The annual LaDuke Women in Mathematics, Science, and Technology Lecture Series, hosted by the STEM Center, brings a distinguished guest to DePaul each fall to present her research to the public. Over 180 people gathered on September 29th, 2014, to hear Ms. Emily Graslie, Chief Curiosity Correspondent at the Field Museum, deliver the 10th annual lecture, titled “The Value of Communicating Scientific Research with the Public.” Additionally, Ms. Graslie conducted a spirited Q&A session organized by the LaDuke Student Advisory Committee.

Since its inception in 2005, the LaDuke series has honored women working in the spirit of Dr. Jean LaDuke, Associate Professor Emeritus, Mathematics, whose research chronicled the accomplishments of the first American women to pursue doctoral degrees in mathematics.

Bernhard Beck-Winchatz received a NASA grant, Competitive Opportunity for Partnerships with Community Colleges and Technical Schools.

Bernhard Beck-Winchatz also presented a paper entitled “Carl Sagan: Can Scientific Research be Spiritual?” to the Lakeshore Unitarian Society in Winnetka, IL, in November 2014.
Teaching Technology Innovations

Technology Innovations in the CSH in 2014

The Department of Mathematical Sciences offered a new online Basic Algebra (MAT 94) course. They also offered a new online section of Introduction to Quantitative Reasoning (MAT 100) for the First Year Academic Success (FYAS) students.

A new online section of Introduction to Quantitative Reasoning (MAT 100) was offered last summer for the First Year Academic Success (FYAS) students.

Chemistry Lab videos on safety training and lab procedures were created and are now being shown online in all General Chemistry and Organic Chemistry courses.

Social media continues to expand the reach of the CSH. Several units in the CSH have developed social media presence to help students stay connected to their programs:

- Department of Biological Sciences
- Department of Chemistry
- Community Psychology
- Department of Environmental Science and Studies
- Family and Community Services
- Department of Health Sciences
- Department of Mathematical Sciences
- School of Nursing
- Department of Physics
- STEM Center

Mona Shattell, Associate Dean for Research and Faculty Development, maintains the CSH Twitter account, which has over 350 followers.
The Office of Advising and Study Services increased its social media presence by 143%.

Several CSH faculty, including Lihua Jin, Gerald Koocher, and Rick Niedziela, had great success in “flipping” some of their lectures and delivering supplemental material online for their face to face courses.

Several CSH faculty, including Craig Klugman and Elizabeth Florez, used interactive class polling in their face to face courses.

Doug Bruce, Health Sciences, had his innovative teaching methods in the hybrid HLTH 310 course featured in a story on “Out of the Box Teaching” in DePaul Magazine.

Recent topics covered by these faculty development opportunities have included managing grades and quizzes in Desire to Learn (D2L), discussing the digital literacy of incoming students in the CSH, demonstrating active learning in the online and face-to-face classroom, discussing the effects of active learning strategies on students of color and first-generation college students, and demonstrations of new devices that assess students’ knowledge in real time from any web-enabled device in the classroom as well as demonstrations of the new changes in the latest edition of Desire to Learn (D2L).

Faculty have also discussed how to make the most out of "real-time" interaction in face-to-face and online classes, using adaptive learning (i.e., software that adapts to student’s proficiency in a topic), how to use new, free multimedia resources that can be embedded in a course, and how to use tools available in Desire to Learn (D2L) to track student progress in a course.
Faculty Grants 2014

The following new and continued grants were awarded to CSH faculty in calendar year 2014

**Bernhard Beck-Winchatz**, STEM Center, received a grant, “NASA-based Courses for Middle School Teachers,” from the Illinois Space Grant Consortium Office.

**Jocelyn Carter** and **Kathryn Grant**, Psychology Department, received a DePaul University/Rosalind Franklin Joint Research grant, “Integration of Stress Research across Animal and Human Models.”

**Sarah Connolly**, Department of Health Sciences, received a grant, “Herpesvirus Gene Expression in Transformed Cells,” from the National Institutes of Health.

**John Dean**, Department of Biological Sciences, received a DePaul University/Rosalind Franklin Joint Research grant, “Glucose conjugation and vacuolar transport of salicylic acid in plants.”

**Phillip Funk**, Department of Biological Sciences, received a grant, “Podiatry Pathways Program,” from The Dr. Scholl Foundation.

**Gabriela Gonzalez Aviles**, Department of Physics, received a grant, “NU-CEMRI - Interdisciplinary Research Group D: Fundamentals of Amorphous Oxide Semiconductors,” from the National Science Foundation.

**Leonard Jason**, Psychology Department, received a grant, “Pediatric CFS in a Community-Based Sample,” from the National Institutes of Health.

**Lihua Jin**, Department of Chemistry, received two DePaul University/Rosalind Franklin Joint Research grants, “Assembly of essential complexes for eukaryotic ribosome biogenesis,” and “Molecular Mechanisms by which Cyclophilin-D Modulates Transcription of Mitochondrial Genes.”

**Caitlin Karver**, Department of Chemistry, received a DePaul University/Rosalind Franklin Joint Research grant, “Novel Inhibitors of Pro-inflammatory Caspases.”

**Jingjing Kipp**, Department of Biological Sciences, received two DePaul University/Rosalind Franklin Joint Research grants, “Unlocking the Molecular Secrets of CYP26B1-Mediated Ovary Development,” and “Crosstalk Between the Retinoic Acid and Calcium Signaling Pathways Plays a Critical Role in Polycystic Ovarian Function.”
Jalene LaMontagne, Department of Biological Sciences, received a grant, “Mast-seeding dynamics in the southern range of boreal forest species,” from the Huron Mountain Wildlife Foundation.

Young-Me Lee, School of Nursing, received a grant, “Bridges to the Doctorate for Underrepresented Minority Nursing Students,” from the National Institutes of Health.

Cecilia Martinez-Torteya, Psychology Department, received a DePaul University/Rosalind Franklin Joint Research grant, “Emotion Regulation Deficits Associated with Early Trauma Among Low-Income, Minority Preschoolers.”

Joseph Mikels, Psychology Department, received a grant, “Emotion, Aging, and Decision Making,” from the National Institutes of Health.

Orson Morrison, DePaul Family and Community Services, received several grants: “Chicago Quest School-Based Mental Health Clinic” from the Chicago Quest Charter School; “IDHS Agreement for Psychiatric Services FY 2015” and “Medicaid Reimbursements for Psych Services FY2015” from the IL Department of Human Services; “CPS Social Emotional Support 2014-15” and “Conflict Resolution Services: Manierre Elementary” from the Chicago Board of Education; and “Community Youth Development Institute, 2013-14” from the Community Youth Development Institute.

Carolyn Narasimhan, STEM Center, received several grants: “Implementing the Next Generation Science Standards: Yr 2,” “Chicago STEM Education Consortium,” and “CCSS-M Network Partnership, Year 3” from the The Chicago Community Trust, and “LSAMP DePaul 2014-2015,” from the National Science Foundation.

Eric Norstrom, Department of Biological Sciences, received a DePaul University/Rosalind Franklin Joint Research grant, “The APP Interactome: Translating New Targets In Alzheimer's Disease.”

Antonio Polo, Psychology Department, received a grant, “An Intervention for Depression among Low-Income Ethnic Minority Youth,” from the The Annie E. Casey Foundation.

LaVome Robinson, Psychology Department, received a grant, “Social Ecology and the Prevention of Suicide and Aggression in African American Youth,” from the National Institutes of Health.

Bernadette Sanchez, Psychology Department, received a DePaul University/Rosalind Franklin Joint Research grant, “A Case Study of a STEM Mentoring Program Aimed at Increasing Latino High School Students’ Participation in STEM Careers.”

Matthew Sorenson, School of Nursing, received a DePaul University/Rosalind Franklin Joint Research grant, “An Evaluation of Viral Prevalence and Activity in Patients with Multiple Sclerosis.”
CSH Staff Awards and Achievements

The following representative recognitions were received by CSH Staff in 2014

The College of Science and Health has a dedicated staff of administrators, support staff, budget professionals, and advisors who facilitate the college’s student-centered and program-oriented goals.

Heather Sevener, Health Sciences, received a Staff Recognition Award and was nominated for an Academic Advisor award.

Lauren Paez, CSH Office of Advising and Student Services, received the Gerald Paetsch Academic Advising Award.

Rhonda Harley, Office of Advising and Student Services, attended the Council on Undergraduate Research (CUR) conference in Washington, D.C. She received a $300 scholarship award to attend.

Erin Berkowitz and Paty Arreola-Lozano of the Office of Advising and Student Services each earned a Master of Education from the College of Education in June 2014.

Erin Berkowitz, Office of Advising and Student Services, participated in a 40-hour sexual assault and violence prevention/response certification program offered through the YWCA. She also completed a Values-Centered Leadership certificate offered through the Vincent on Leadership: The Hay Project. Erin Berkowitz presented at the ILACADA Chicago Area Advisor Network advising drive in conference in May 2014 at Loyola University, Chicago. The session was titled, “I am SO Done! Managing Advisor Burnout.” She was also was elected to Staff Council for 2014 – 2016.

Michael Roberts and Lindsey Burdick attended the National Association of Advisors for Health Professions (NAAHP) conference in San Francisco, CA.

Staff in the Office of Advising and Student Services (OASS) made positive and consistent student contact their priority, and have increased OASS social media presence by 143%. The OASS can be found on Facebook and Twitter.
**Student Accomplishments**

**Representative honors for CSH students in 2014**

**Awards and Honors**

Ciaran Shaughnessy, graduate student in the Department of Biological Sciences, won several grants and awards in 2014, including the 2014 International Congress on the Biology of Fishes Student Travel Award, the 2014 Canadian Society of Zoologists EPCOR Water Ltd. Student Travel Award, and the 2014 Sigma Xi Grants-In-Aid of Research (GIAR) Award. Shaughnessy was also a finalist for the 2014 Canadian Society of Zoologists William S. Hoar Award (Best Student Presentation).

Rebecca Anstee, MENP student, was awarded the Mayo Clinic Breakthrough to Nursing Scholarship.

Two Master's Entry to Nursing Program (MENP) students, Lissa de Castro and Nicole Raucci, and a Psychology student, Alescia Hollowell, were named as Schweitzer Fellows 2014-2015.

Master’s Entry to Nursing Program (MENP) students, Natalie Burris and Michelle Jodziewicz, were awarded Student Nursing Assistant Positions at Lurie Children's Hospital. This is a highly competitive program based on academic excellence and interviews, and is equivalent to a paid internship.

Stephanie Eleanor Rivera, Master’s Entry to Nursing Program (MENP) graduate 2013, is editorial assistant for the Journal of the American Psychiatric Nurses Association and PhD student in nursing at the University of Illinois at Chicago (UIC).

Sheila Flynn Robbins, Master’s Entry to Nursing Program (MENP) student at the Rosalind Franklin site, and a Registered Dietician, is the chairperson for the Parish Life council at Church of St. Mary in Lake Forest and on the Women's Board of Catholic Charities. She is also an alumni board member and recruiter for University of Massachusetts – Amherst. As a board member she addresses alumni affairs and represents the school at college fairs.

**Presentations**

Elsa Anderson, undergraduate Biology student, presented her research “Nest site selection of Red-headed woodpeckers across three spatial scales in an urban environment” at the Genomes to Biomes Conference in Montreal, Canada. Elsa’s presentation was ranked in the top 5% of 260 student presentations at the meeting.

Grace Malato and Winer Daniel Reyes, graduate Biology students, presented at the Evolution meeting in Raleigh North Carolina held June 2014. This is a National Meeting. Malato’s project was entitled “Body shape variation in Rhoadsia (Teleostei: Characidae) along a low altitude gradient in Western Ecuador,” and Reyes presented on “Effects of temperature and water flow on morphology and swimming performance in Astyanax mexicanus (Teleostei: Characidae).”
Grace Malato and Seth Contreras, Biology, presented at a regional student conference, the Midwest Ecology and Evolution Conference, held March 2014 at the University of Dayton.

Michelle Lajko, Biology MS student, presented her work “Examining herpesvirus entry glycoprotein interactions using proximity biotinylation” at the 33rd Annual Meeting of the American Society for Virology in Fort Collins, CO.

Graduate student Art Ralko, Chemistry, presented a poster entitled “Zinc-HCl reduction of halogenated nitrostyrenes: Synthesis of halogenated dopamine analogs” at the 247th American Chemical Society National Meeting in Dallas, TX, in March 2014.

Sophia G. Robinson, Chemistry, presented a poster at the 2014 American Society of Biochemistry and Molecular Biology Annual Meeting.

Abby Brown, Psychology, gave an invited talk at the NIH Pathways to Prevention: Advancing the Research on ME/CFS Workshop.

Chris Adair, Psychology, was awarded the James C. Johnson Annual Student Paper Competition award sponsored by the International Personnel Assessment Council (IPAC) for his dissertation.

Natalie Burris, Master’s Entry to Nursing Program (MENP) student, presented at the Community Campus Partnerships for Health (CCPH) conference.

Susan Krawczyk, Doctor of Nursing Practice (DNP) student, presented her project entitled “Determining Leadership Readiness in Certified Registered Nurse Anesthetists (CRNAs)” at the Sigma Theta Tau International Leadership Conference in Indianapolis in September 2014.

**Poster Presentation Awards, 2014 Spring Symposium and Research Conference in STEM Hosted by the Illinois Louis Stoke Alliance for Minority Participation (LSAMP)**

Patrick Morgan  
2nd place in Math/Physics [Stephen Stanhope]

Amanda Henderson  
1st place in Environmental Science [University of Puerto Rico REU Faculty]

Brandon Bell  
3rd place in Computer Science [Robert Garcia]

Maria Christina Ulloa  
3rd place in Molecular Biology [RFU internship]

Danielle Araiza, Erica Valdez and Mallory Davis  
3rd place in General Biology [Jason Bystriansky and Timothy Sparkes]

**Oral Presentation Awards, 2014 Spring Symposium and Research Conference in STEM Hosted by the Illinois Louis Stoke Alliance for Minority Participation (LSAMP)**

Maxine Loh  
1st place in General Biology [RFU Internship]

Alejandra Luna  
3rd place in General Biology [Jason Bystriansky]

Maria Sanchez  
1st place in Molecular Biology [RFU Internship]

Trevor Grand Pre  
1st place in Physics [University of California Berkeley internship/Eric Landahl]
Grants

Grace Malato, M.S. Biological Sciences student in Aguirre Lab, Department of Biological Sciences, received a Sigma Xi grant for $500 for her thesis research: "Speciation, gene flow, and morphometric variation in the genus Rhoadsia along an altitudinal gradient."

Field Research

Maya Navarro, Louis Stokes Alliance for Minority Participation (LSAMP) Scholar and Chemistry major, participated in the Organization of Tropical Studies NAPIRE (Native American Pacific Islander Research Experience) in Costa Rica from June 9 – Aug 4, 2014. NAPIRE is an NSF funded, LSAMP supported field research experience.

Publications

Jeanine Valrie, Nursing, co-authored a book titled Free to Breastfeed: Voices of Black Women, which was published by Praeclarus Press.

Fiacha Heneghan, Mathematics, published a paper entitled “Power series for up-down min-max permutations” with T. Kyle Petersen in College Math Journal, the premier journal for undergraduate mathematics.

DePaul Discoveries, Undergraduate Research Journal

The following students completed research projects across the CSH disciplines with the help of faculty advisors. Their work, reviewed by the DePaul Discoveries Editorial Board, was found to be of publishable caliber.

Lily Arendt
Joe Boesso
Cat Collins
Spencer Everett
Aimee Fata
Nia Hurst
Matt Kwicen
Samantha Lane
Michael C. Lordon
Cordell Newmiller
Othon Nunez-Montelongo
Neel Patel
Monica Pocs
Catherine Rehberger
Yarency Rodriguez
Faye C. Tabor
Rebecca Ursin
Ellen V. Webb

Congratulations to the students who published their research in DePaul Discoveries Volume 3.
Many thanks to the faculty advisors who worked closely with students to complete the research, writing and editing necessary for publication in DePaul Discoveries.

**Psychology Department**
Linda Camras
Jocelyn Carter

**Department of Physics**
Gabriela González Avilés
Jesus Pando

**Department of Chemistry**
Cathrine A. Southern

**Department of Biological Sciences**
Windsor Aguirre
Joanna Brooke
Jingjing Kipp
Jalene LaMontagne

**Department of Environmental Science and Studies**
Christie Klimas
Beth Lawrence
Mark Potosnak

**Department of Health Sciences**
Douglas Bruce

The *DePaul Discoveries Editorial Board* consists of the following faculty members:

Mona Shattell, PhD, RN, FAAN
Jocelyn Carter, PhD, Department of Psychology
Gabriela Gonzalez Aviles, PhD, Department of Physics
Kyle Grice, PhD, Department of Chemistry
Craig Klugman, PhD, Department of Health Sciences
Dorothy Kozlowski, PhD, Department of Biology
T. Kyle Petersen, PhD, Department of Mathematics
Mark Potosnak, PhD, Department of Environmental Sciences and Studies
Bridget Tenner, PhD, Department of Mathematics

The following student reviewers assisted the editorial board:

Angela Bouche, Undergraduate Student in Environmental Science and Studies
Elizabeth Carter, Undergraduate Student in Environmental Science and Studies
Aakash Chokshi, Graduate Student in Chemistry
Alexandra Ellison, Undergraduate Student in Environmental Science and Studies
Christina Hazel, Undergraduate Student in Mathematics
Olivia Johnson, Undergraduate Student in Environmental Science and Studies
Sophia Robinson, Graduate Student in Chemistry
Student Spotlight: Vishal Patel

Recipient of the Dean’s Undergraduate Summer Fellowship

“We appreciate and are extremely thankful that everyone is pitching in for social and scientific progress.”

- Vishal Patel, Health Sciences Undergraduate Student

The Dean’s Undergraduate Fellowship, a new research opportunity connecting CSH students with external sites, began in 2014 to fund CSH students to work in their fields during the summer break. Eight students were placed at the Chicago Field Museum, Argonne National Laboratory, and the Lincoln Park Zoo in 2014. Vishal Patel, Health Sciences, received the fellowship for the site of his choice: the Chicago Field Museum.

Patel participated in several ongoing projects at the Field Museum, including a large-scale microscopy project of microplants. Patel explains, “We take pictures of a critical morphological feature—a modified leaf (lobule) from early land plants—to help scientists document and describe new species.” The plants are a part of the Field Museum’s 3.5 million fern and algae specimens. Patel assisted in digitizing and databasing high-resolution photographs as part of an open source project. This venture has global reach, allowing anyone with internet access to use the images of microplants in their research.

Patel reported that this microscopy project was the most enjoyable for him personally because it allowed him to be on the cutting edge of research, “working with new species that are yet to be discovered.” Additionally, Patel received insight into the demands of daily scientific research for researchers. Patel reports, “what everyone sees at the Field Museum is only the 1% of the collections they have on display; the other 99% is stored where researchers work.” Patel was able to network with scientists and other students with similar interests. An intern breakfast at the Field Museum allowed for international networking and an opportunity to meet the president of the Field Museum.

The College of Science and Health seeks to place students at sites that allow students to explore new interests. For Patel, expressing interest in the Field Museum’s DNA Pritzker lab led to a tour that same day. He was able to shadow graduate students and study mosses that are genetically different but look the same by running PCRs and gel electrophoresis. The Field Museum collaborates with students for project placement and offers flexible hours and team-based deadlines, allowing students to explore areas in which they had not worked in order to provide opportunities to develop new skills.

Through the necessary administrative aspects of organizing the scheduling between DePaul and the Field Museum, Patel found new skills and strengths, particularly that he is good at leading teams and has a proclivity toward management roles. This indicates to Patel that Healthcare Administration may be an additional career direction in the sciences for his consideration.

Patel expressed his appreciation for a summer opportunity that “financially supported us to work at a world class, socially responsible museum.” The Dean’s Undergraduate Research Fellowship program will expand in the coming year, allowing a greater number of CSH students this opportunity.
Excellence in Teaching

Dr. Timothy Sparkes, recipient of the 2014 Excellence in Teaching award in the CSH

Each year, colleges across the university collect nominations, teaching evaluations, and recommendation letters for Excellence in Teaching awards. In 2014, Timothy Sparkes, Department of Biological Sciences, received the College of Science and Health award in recognition of his innovative teaching methods. Dr. Sparkes teaches the general biology classes attended by majors and non-majors, finding creative ways to engage students in large classes. Sparkes lectures actively, walking between rows, engaging students and facilitating group work so these classroom experiences do not feel like being in a large class. Sparkes also designs experiments that build upon each other. For the lab breakouts, each group of students completes one section of a substantial experiment. Each group then reports their findings, layering each piece of the whole experiment together so that the students are exposed to lab experiences in the span of one or two lab sessions that would normally take several weeks.

Sparkes also teaches a field research course, preparing and then taking students to South Carolina during the December break for an intensive eight-day immersion in marine biology. The students tag fish, observe birds, and “live as scientists” for the duration of the trip. These are long days, working with the South Carolina Department of Natural Resources, which allow students to see the taxing experience and the rewards inherent in working in the field. Sparkes asks the students to reflect at the end of the course with questions such as “How did you surprise yourself?” and finds that students describe personal growth alongside newly learned skill sets and academic learning. Students are able to think as scientists under stressful conditions and develop transferrable skills for their future careers as researchers or in other capacities.

During biology students’ capstone oral exams, Sparkes prepares students to be tested on the full spectrum of learning they have received during their time in the program. With the use of a white board, Sparkes asks questions and holds a conversation with students, challenging them to speak articulately on a variety of topics. Students find that presenting their academic and research experiences is empowering, and Sparkes finds that this conversational method results in better test scores.

After fifteen years of teaching, Sparkes notes that the Department of Biological Sciences at DePaul “is truly and genuinely student-centered,” carefully allocating resources to student experiences and experiential learning. New approaches to teaching are supported by the department, and the success of these techniques leads to other instructors trying new strategies and a culture of collaboration.
CSH Faculty Publications

2014

Department of Biological Sciences

Windsor E. Aguirre
Assistant Professor


Rima T. Barkauskas
Senior Instructor


Joanna S. Brooke
Associate Professor


Stanley A. Cohn
Professor


John V. Dean
Professor and Chair


Phillip Funk
Associate Professor and Associate Dean for External Relations

William D. Gilliland  
Assistant Professor  
Gilliland, W. D., Colwell, E. M., Lane, F. M., Snouffer, A. A. (2014). Behavior of Aberrant Chromosome Configurations in D. melanogaster Female Meiosis I G3: Genes, Genomes, Genetics. http://www.g3journal.org/content/5/2/175.full

Jingjing L. Kipp  
Assistant Professor  


Ursin R and Kipp JL. (2014) In Vivo Impact of Vitamin A Deficiency or Retinoic Acid Synthesis Inhibition on Ovulation and Oocyte Maturation in Mice. Illinois Symposium on Reproductive Sciences in Health and Disease. UIC Forum. Chicago, IL


Jalene M. LaMontagne  
Assistant Professor  


Elizabeth E. LeClair  
Associate Professor  

Eric M. Norstrom  
Assistant Professor  

Timothy C. Sparkes
Associate Professor

Department of Chemistry

Anthony G. Clementz
Instructor

Kyle A. Grice
Assistant Professor
https://www.ionicviper.org/literature-discussion/dissecting-catalysts-artificial-photosynthesis


https://www.ionicviper.org/literature-discussion/mechanisms-controlling-cellular-metal-economy


Graham B. Griffin
Assistant Professor


Caitlin E. Karver
Assistant Professor


Gregory B. Kharas
Professor


Justin J. Maresh
Assistant Professor


**Ruben D. Parra**
Professor


Cathrine A. Southern
Assistant Professor


**Paul A. Vadola**
Assistant Professor


Wendy S. Wolbach
Professor


**Department of Environmental Science and Studies**

**Liam Heneghan**
Professor and Chair


**Christie A. Klimas**
Assistant Professor


**Jim Montgomery**
Associate Professor

Montgomery, J.A. and J.M. Eames. *Prairie Wolf Slough: A Case Study Illustrating the Need for Incorporating Land Use History and Soil

Mark J. Potosnak
Assistant Professor


Kenshu Shimada
Professor


Department of Health Sciences

Douglas Bruce
Assistant Professor


Sarah A. Connolly
Assistant Professor
Fan, Q., Longnecker, R., Connolly, S. A. (2014). Substitution of herpes simplex virus 1 entry glycoproteins with those of saimirine herpesvirus 1 reveals a gD-gH/gL functional interaction and a region within the gD profusion domain that is critical for fusion. Journal of Virology, 88, 6470-6483.

Eiron R. Cudaback
Assistant Professor


Allan Berele
Professor


William Chin
Professor


Chin, W., Musson, I. *The coradical filtration of quantum enveloping algebras: Corrigenda and an example of B. Scharfschwerdt*. J. London Math Soc.
http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.136.2436

David Degras
Assistant Professor


Christopher M. Drupieski
Assistant Professor


Yevgenia Kashina
Associate Professor


Yiou Li
Visiting Assistant


Karl E. Liechty
Assistant Professor


T. Kyle Petersen
Associate Professor


Nicholas A. Ramsey
Assistant Professor

Ayse A. Sahin
Professor


Ilie D. Ugarcovici
Associate Professor

Gang Wang
Professor

Ahmed I. Zayed
Professor and Chair


Department of Physics

Susan M. Fischer
Associate Professor

Mary Bridget Kustusch
Assistant Professor


Eric C. Landahl
Assistant Professor

Department of Psychology

Suzanne T. Bell
Associate Professor

Bell, S. T., Brown, S., Outland, N., Abben, D. (2014). Critical Team Composition Issues for Long-Distance and Long-Duration Space Exploration: A Literature Review, an Operational Assessment, and
Recommendations for Practice and Research.
Houston, TX.

Molly M. Brown
Assistant Professor

Jocelyn S. Carter
Assistant Professor


Jessica M. Choplin
Associate Professor

Joseph R. Ferrari
Professor


Verena Graupmann
Assistant Professor


Megan R. Greeson
Assistant Professor


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http://www.huffingtonpost.com/mono-shattell/sexual-assaults-on-campus_b_5504031.html


Leonard A. Jason
Professor


Gerald P. Koocher
Professor of Psychology and Dean, College of Science and Health


Violence. 29 (18) 2367-3276, DOI: 10.1177/0886260514534986


Yan Li
Associate Professor


Cecilia Martinez-Torteya
Assistant Professor


Susan D. McMahon
Professor and Chair


Joseph A. Mikels  
Associate Professor  


Antonio Polo  
Associate Professor  


Kimberly A. Quinn  
Associate Professor  


Christine Reyna  
Professor  


W. LaVome Robinson  
Professor  
Whitehead, N., Jason, L., Robinson, L. *Procuring resources within the community to help fund research.* Society for Community Research and Action.

Bernadette Sanchez
Associate Professor


Anne Saw
Assistant Professor


Alice F. Stuhlmacher
Professor


Sandra M. Virtue
Associate Professor


**Quantitative Reasoning Skills Center**

David Jabon
Director
**STEM Studies**

Bernhard Beck-Winchatz
Associate Professor


**School of Nursing**

Kim M. Amer
Associate Professor


Linda A. Bensfield
Coordinator of Nursing Labs


Ellen M. Chiocca
Clinical Assistant Professor


Barbara A. Harris
Associate Professor


Paula Kagan
Associate Professor


Karen A. Larimer
Assistant Professor


Young-Me Lee
Assistant Professor


Mona M. Shattell
Professor and Associate Dean for Research and Faculty Development

Beyond easy answers: Facing the entanglements of violence and psychosis. Issues in Mental Health Nursing, 35, 809-811.


Matthew R. Sorenson
Associate Professor


Joseph D. Tariman

Assistant Professor


Lori L. Thuente

Assistant Professor


CSH Retirees

Thank you for your service to DePaul and the students of the CSH

J. Marshall Ash, Professor, Department of Mathematical Sciences

Judith Bramble, Associate Professor, Department of Environmental Science and Studies

Karen S. Budd, Professor, Psychology Department

Linda A. Camras, Professor, Psychology Department

Jonathan Cohen, Professor, Department of Mathematical Sciences

Sheldon Cotler, Professor, Psychology Department

Susanna S. Epp, Professor, Department of Mathematical Sciences

A. E. Gatto, Associate Professor, Department of Mathematical Sciences

Lawrence Gluck, Associate Professor, Department of Mathematical Sciences

Fred H. Heilizer, Associate Professor, Psychology Department

Christopher B. Keys, Professor, Psychology Department

Leonid Krop, Professor, Department of Mathematical Sciences

Eva Johnson, Staff Therapist, Family and Community Services

Christine Werdrick, Business Administrator, School of Nursing