

The Graduate School

2023 Commencement Citation Book



Eli J. and Helen Shaheen Graduate School Awards:

Shaheen Award in Engineering

Shaheen Award in Humanities

Shaheen Award in Science

Shaheen Award in Social Sciences

Social Justice Award

James A. Burns, C.S.C., Award – Professor

James A. Burns, C.S.C., Award – Associate Professor

Dick and Peggy Notebaert Award

Distinguished Graduate Alumni Award



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At the Graduate School
at the University of Notre Dame,
Your Research Matters.

The four winners of the
Eli J. and Helen Shaheen
Graduate School Awards embody
this conviction, representing
distinction among the graduating
class in each of their divisions:
engineering, humanities, science,
and social sciences.

The winner of the
Social Justice Award
reminds us that scholarship
joined to service can truly
Be a Force for Good.

Shaheen Award in Engineering



Laura M. Alderfer, Ph.D.

the Graduate Program in Bioengineering

Adviser: Dr. Donny Hanjaya-Putra

A bioengineer focused on translational and precision medicine applications, Dr. Laura Alderfer's groundbreaking work in tissue engineering and lymphatic biology has been honored with numerous awards and accolades. Her research — including nine peer-reviewed publications in leading international journals — has made field-altering contributions to the scientific understanding of the lymphatic system and has demonstrated a novel *in vitro* engineering method that could lead to the first long-term treatment for lymphedema, a debilitating disease often associated with cancer treatment and infections which affects 250 million people globally.

During her graduate studies, Alderfer won a series of nine awards, including the prestigious Fulbright fellowship, which took her to Finland to work in the lab of Dr. Kari Alitalo, considered to be one of the founding fathers of lymphatic biology. That research exchange culminated in a high-impact, cover article publication outlining a novel crosstalk mechanism that, for the first time, linked the two major signaling pathways involved in lymphatic vessel growth.

Alderfer has also made it her mission to mentor and train other young scientists, including over 20 graduate, undergraduate, and high school students during her doctoral

program. She has similarly worked outside of the lab to reach out to the local South Bend community, most notably serving on the leadership committee for Expanding Your Horizons, an annual conference reaching 300 middle school girls and encouraging them to explore careers in STEM.

Alderfer's faculty adviser, Dr. Donny Hanjaya-Putra, sums up well the legacy of her graduate career: "Laura embodies the traits of a successful and impactful scientific leader who will leave their mark on society. From the start of her Ph.D. studies, she has demonstrated daily that she is exceptionally driven and motivated by the ultimate goal of making a global impact on human health through innovative solutions."

Shaheen Award in Humanities



Susanna De Stradis, Ph.D.

Department of History

Adviser: Dr. John T. McGreevy

Dr. Susanna De Stradis is an award-winning historian of religion whose widely published scholarly work has upended and reframed traditional understandings of the complex interplay between American Catholicism, democratic values, notions of religious freedom, and mid-twentieth-century Vatican authorities.

A native of Italy, De Stradis earned a B.A. and M.A. in history from the University of Pisa and a Licenza from the Scuola Normale Superiore. In 2017, she moved to the United States to further her studies of American Catholicism and its cultural and institutional relationship with Rome. In the fall of 2020, De Stradis was among the first cohort of scholars to access the newly available records of Pope Pius XII's pontificate (1939–1958) at the Vatican Archives. Her findings in Rome received a great deal of attention from scholars around the world and led to significant publications in both Italian and American journals, as well as in public-facing venues such as *Commonweal* and *The Immanent Frame*.

During her doctoral program, De Stradis was the recipient of a major fellowship from the Social Science Research Council, and received additional funding awards from the Eisenhower Foundation and the Cushwa Center for the Study of American Catholicism.

Current University provost Dr. John T. McGreevy served as De Stradis's adviser and considers her a true rising star in the field. "Few U.S. scholars have her linguistic capacity and intellectual drive," he says. "Virtually no one is as well positioned to deepen our understanding of both global history and global religion. Eventually, everyone at Notre Dame and the Graduate School will bask a bit in her reflected glory."

De Stradis is currently a postdoctoral research associate at the John C. Danforth Center on Religion and Politics at Washington University in St. Louis. Starting in the fall, she will take up an appointment as assistant professor of history at Mississippi State University.

Shaheen Award in Science



Megan Vahsen, Ph.D.

Department of Biological Sciences

Adviser: Dr. Jason McLachlan

Dr. Megan Vahsen is an ecologist whose peer-reviewed publication record — including a recent first author article in *Science*, one of the world's preeminent journals — underscores the exceptional nature of her scholarship.

Vahsen's research scales evolutionary processes across genotypes, populations, communities, and ecosystems in the context of global climate change. More specifically, she has investigated the role of rapid plant trait evolution in driving ecosystem dynamics in coastal marshes in the Chesapeake Bay. Her article in *Science* provided the novel evidence that rapid evolution in plants could significantly impact ecosystem resilience to environmental changes over the next few decades. Vahsen has had additional publications in high-impact journals such as *Proceedings of the National Academy of Sciences* and *Ecology Letters*.

Beyond the publications, Vahsen has been equally adept at winning prestigious external funding to further her independent research, including nationally competitive grants from the NASA Carbon Monitoring System and the U.S. Coastal Research Program. Despite the fact that she had funded her research, Vahsen remained demonstrably committed to teaching and mentoring during her doctoral program. She mentored other students in her department

on statistical analysis and co-instructed an undergraduate biostatistics course that she fully revised alongside her adviser, Dr. Jason McLachlan.

After observing the impact of her research over the course of her doctoral studies, McLachlan noted: "I have no doubt that the trajectory she established at Notre Dame will continue, resulting in substantial contributions to our understanding of the fate of ecosystems affected by global environmental change and to training future biologists to wisely utilize the advanced analytical tools that facilitate such discoveries."

Vahsen is currently a postdoctoral fellow in the Department of Wildland Resources at Utah State University.

Shaheen Award in Social Sciences



Luiz Vilaça, Ph.D.

Department of Sociology

Advisers: Dr. Erin McDonnell and Dr. Ann Mische

Considered a rising star in his field, sociologist Dr. Luiz Vilaça has directed his doctoral research toward explaining the causes of anti-corruption prosecutions. His remarkable success in being published — seven publications in total, with several more on the way — underscores the impact that his research has already had on the field of sociology, as well as on public policy.

Vilaça's mixed-methods dissertation examines the case of Operation Car Wash in Brazil, a series of anti-corruption prosecutions that resulted in the conviction of hundreds of business executives and politicians. In it, he draws on 120 interviews with prosecutors, detectives, judges, and politicians involved in corruption investigations, as well as on survey data and an original dataset of corruption cases from the Brazilian Superior Court of Justice.

Dr. Erin McDonnell, co-chair on Vilaça's dissertation, says his research brings a fresh perspective to the issue: "Luiz's work is at the cutting edge of policy-relevant social science. He moves beyond a decades-long tradition of documenting and lamenting corruption to break new ground on analyzing what can actually be done by organizational actors to tackle corruption where it is endemic."

Vilaça's work has been recognized with multiple awards, including the Jeanine Becker

Award for Best Graduate Student Paper (2019), the John J. Kane Award for the Most Outstanding Graduate Student (2020), and the SSSP (Society for the Study of Social Problems) Conflict, Social Action, and Change Paper Competition (2020).

Following graduation, Vilaça will begin a position as a postdoctoral fellow at the Center for Inter-American Policy and Research at Tulane University. In the fall of 2024 he will take up an appointment as assistant professor of sociology at Bowdoin College.

Social Justice Award



Ester E. Aguirre Alfaro, M.A.

Department of Romance Languages and Literatures

Adviser: Dr. Marisel Moreno

Ester Aguirre Alfaro has demonstrated a tireless commitment to fighting for the marginalized — in particular, immigrants and families from Latin America — both during her master’s program at Notre Dame, and in the years preceding it. Born and raised in Monterrey, Mexico, she moved to the United States to pursue her studies in San Antonio, Texas, where she subsequently worked with various non-profits to protect and advance the rights of asylum-seeking immigrants at the border. At the Refugee and Immigrant Center for Education and Legal Services (RAICES), she held successive positions as a shelter coordinator, community educator, and project developer. These experiences of working with families spurred her to complete a master’s degree in teaching and to spend a year as an educator in the public-school system in Houston, Texas, working with underserved student populations.

Her curiosity and questioning, as well as her passion for literature, next brought her to Notre Dame, where she hoped to continue building bridges between academia and the grassroots movements she had long worked to support. During this second master’s program, Aguirre Alfaro became involved with a number of social justice initiatives, both on- and off-campus.

Most notably, she took on a position as research assistant and assistant project coordinator with the Shaw Center for Families and Children as part of their ongoing *Seguimos Avanzando* project, one of the largest studies of the Mexican population in the U.S. Aguirre Alfaro recruited families into the study, served as a bilingual assessment coordinator, and assisted in the coding of qualitative interviews about migrant experiences of discrimination and parenting.

She has also found ways to incorporate these issues of justice into her research and her work as a teaching assistant at Notre Dame. That fact has not gone unnoticed by Dr. Vanesa Miseres in the Department of Romance Languages and Literatures, who highlights Aguirre Alfaro’s unique fusion of scholarship and service: “Ester has a distinguished profile of a student who knows how to bring her academic training to a practical sphere and serve the community.”

This fall Aguirre Alfaro will begin a doctoral program in hispanic studies at the University of British Columbia.

Behind every graduate student
producing **research that matters**
is a powerful team of inspiration,
mentorship, and support.

Meet our honorees:
exemplary faculty and
alumni, who empower our
graduate students to translate
their research into impact.

James A. Burns, C.S.C., Award



Patricia A. Champion, Ph.D.

Professor, Department of Biological Sciences

Dr. Patricia Champion is the winner of the James A. Burns, C.S.C., Award. Named for the first Notre Dame president with an advanced degree, the award recognizes outstanding faculty scholarship and mentorship and showcases Notre Dame's very best doctoral advisers. Dr. Champion is awarded for sustained mentoring over the course of her career.

In her research, Professor Champion focuses on understanding tuberculosis, an ongoing pandemic, with roughly 10 million people infected and 1.6 million deaths each year. The Champion lab is focused on understanding the biology of how the bacteria that cause tuberculosis infects and causes disease in animals and humans.

Graduate students mentored by Dr. Champion have an exceptional record of success across a number of metrics: first-author publications in leading journals; presentations at international conferences; competitive external and internal awards; and excellent career outcomes with prestigious postdoctoral positions. The common denominator, say alumni of the Champion lab, is her extraordinary mentoring. Many speak of the way that Champion tailored her doctoral mentorship to their specific needs, guiding them toward intellectual independence while

still providing support and instilling confidence at every step along the way.

Champion has not just limited her mentoring to individual students. She has invested significant time and energy into mentoring assistant professors in the Department of Biological Sciences, and has served as a faculty adviser to Expanding Your Horizons, a STEM-focused one-day program for middle school girls. In addition to her faculty appointment, Champion has recently taken on a concurrent role as director of postdoctoral scholars in the College of Science, a position which will allow her to bring her prodigious mentoring gifts to a new population on campus.

Dr. Michael Hildreth, senior associate dean for research and graduate studies in the College of Science, summarizes well Professor Champion's overall impact: "Dr. Champion is the exemplar of a great mentor. Her activities, her instincts for what students need and her ability to deliver, whether that be training or compassion, are outstanding."

James A. Burns, C.S.C., Award



Mark Anthony Caprio, Ph.D.

Associate Professor, Department of Physics and Astronomy

Dr. Mark Caprio is the winner of the James A. Burns, C.S.C., Award. Named for the first Notre Dame president with an advanced degree, the award recognizes outstanding faculty scholarship and mentorship and showcases Notre Dame's very best doctoral advisers. Dr. Caprio's award is for excellence in mentoring among mid-career faculty.

Professor Caprio's research is in computational nuclear theory, and addresses how the protons and neutrons within an atomic nucleus interact to give rise to emergent collective phenomena, such as nuclear deformation and rotation. Caprio's approach is to combine the mathematics of symmetries with the power of modern supercomputing.

In terms of Dr. Caprio's mentoring impact on his Ph.D. advisees, Dr. Morten Eskildsen, chair of the Department of Physics and Astronomy, says one need only look at where his students place when they leave Notre Dame: "Within the Department of Physics and Astronomy, he is widely known for exemplary mentoring of both the undergraduate and the graduate students within his research group. Of these, two have won highly competitive Department of Energy Office of Science Graduate Student Research Awards. Three graduate students went on to postdoctoral fellow positions at Yale University,

TRIUMF (Canada), and Argonne National Laboratory respectively, and one currently holds a prestigious FRIB Theory Fellow position at Washington University in St. Louis."

That post-Notre Dame success is not accidental. Dr. Caprio helps guide his students' research, making sure they develop thorough knowledge of the computational and mathematical tools of the trade that will prepare them for success in postdoctoral research. His doctoral students are also encouraged to interact with outside researchers through external collaborations and extended collaborative visits to other institutions.

His mentoring influence also extends beyond his own students and to the department more broadly, beginning with widespread changes he introduced during his six-year stint as director of graduate studies. These changes were aimed at improving the climate for current and incoming students and included implementing a new and improved graduate student mentoring committee system and more clearly defining requirements and processes.

Dick and Peggy Notebaert Award



Robert Goulding, Ph.D.

Director, Graduate Program in History and Philosophy of Science; Director, Reilly Center for Science, Technology, and Values; Associate Professor of Liberal Studies

Dr. Robert Goulding is the winner of the Dick and Peggy Notebaert Award, which honors a faculty member or administrator who has had a significant impact on graduate studies at Notre Dame.

Professor Goulding specializes in the history of science in the early-modern period. His most recent publications concern Descartes' discovery of the law of refraction, and the philosophical significance of mathematics in the Platonic school of the fifth century CE.

Since 2016, Goulding has been the director of the Graduate Program in History and Philosophy of Science (HPS), and since 2017 the director of the Reilly Center for Science, Technology, and Values, of which HPS is a part. In those roles, he has demonstrated outstanding thoughtfulness and creativity in meeting program-specific challenges and in innovating new support structures for graduate students. These include: creation of the Reilly Center Fellowship, an award allowing top-tier Ph.D. students the opportunity to pursue additional study or research at outside universities in the early stages of their dissertation; building a new concentration within the HPS curricula; attracting additional faculty to HPS; and revamping a weekly student reading group colloquium into a forum focused

on presentations and discussions about the work of HPS scholars.

In addition, Dr. Goulding has received high marks from faculty and students alike for his generous mentoring of graduate students, particularly during the upheaval of the COVID-19 pandemic. Current and former Ph.D. students have credited Goulding for creating the infrastructure to support an increasingly close-knit HPS community and for giving graduate students a remarkable degree of agency in shaping the program's culture and training. Faculty colleague Dr. Thomas Stapleford says Goulding is the perfect example of someone investing heavily into graduate students and graduate programs: "I believe that Robert has gone far above and beyond the standard expectations for a director of graduate studies. He has provided critical leadership for HPS that has not only restored stability but allowed it to thrive."

Distinguished Graduate Alumni Award



Monica C. Regalbuto, Ph.D.

Director of Nuclear Fuel Cycle Strategy,
Idaho National Laboratory

Dr. Monica C. Regalbuto is the winner of the Distinguished Graduate Alumni Award, given each year to a graduate alumnus or alumna of the University who has contributed significantly to scholarship, research, or society. Dr. Regalbuto is an Idaho National Laboratory and American Nuclear Society fellow who combines her expertise in chemical separations, modeling and simulation, and proliferation risk reduction to make a difference for our nation and its citizens. She has been a key contributor to the nuclear fuel cycle and nuclear waste management mission by developing and demonstrating innovative nuclear energy technologies that have significantly advanced the scientific, engineering, policy, and regulatory aspects of the nuclear enterprise.

After earning her Ph.D. in chemical engineering from Notre Dame in 1989, Dr. Regalbuto has gone on to multiple national leadership roles. She currently serves in the following capacities: director of the nuclear fuel cycle strategy at the Idaho National Laboratory; member of the Nuclear and Radiation Studies Board at the National Academy of Sciences; and member of the Standing Advisory Group on Nuclear Energy at the International Atomic Energy Agency, which advises the director general.

In 2015, she was appointed by President Obama and confirmed by the Senate as assistant secretary for the Office of Environmental Management within the U.S. Department of Energy (DOE). In this capacity, she was responsible for managing the environmental cleanup resulting from weapons production, as well as special nuclear materials. As the deputy assistant secretary for fuel cycle technologies with DOE's Office of Nuclear Energy, Dr. Regalbuto managed the nation's research and development fuel cycle portfolio. At Argonne National Laboratory, Dr. Regalbuto served as the head of the Process Chemistry and Engineering Department in the Chemical Sciences and Engineering Division, and she conducted petrochemical research with the Amoco Oil Company.

Dr. Regalbuto has authored multiple publications and holds six patents. Her many awards include: Honorary Degree of Doctor of Public Service, University of South Carolina Aiken (2017); Department of Energy Secretary's Achievement Award (2011, 2013, and 2016); Professional Achievement Award, Hispanic Engineer National Achievement Award Corporation (2007); and the Mary Jane Oestmann Professional Women's Achievement Award, American Nuclear Society (2007).

Commencement Speaker:



John T. McGreevy, Ph.D.

Charles and Jill Fischer Provost,
University of Notre Dame

The Graduate School wishes to extend its grateful appreciation to Dr. John T. McGreevy, the Charles and Jill Fischer Provost and Francis A. McAnaney Professor of History at the University of Notre Dame, for delivering the keynote address during the Graduate School's annual Commencement Ceremony.

A graduate of Notre Dame, Dr. McGreevy is an acclaimed historian, with a focus on both American and global religion and politics. He joined Notre Dame's faculty in 1997, coming from Harvard. He served as chair of the Department of History from 2002 to 2008 and the I.A. O'Shaughnessy Dean of the College of Arts and Letters from 2008 to 2018. He began his term as provost in July 2022.

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