

THE NEED FOR RESEARCH AND INNOVATION SUPPORT

AN EPICENTER OF DISCOVERY

By any measure, Northeastern University is home to a robust and thriving research enterprise.

We are focused on uncovering answers to worldwide challenges in health, security, and sustainability. We are making historic breakthroughs in the discovery of drugs to treat chronic infections. We are revolutionizing technology that can withstand both natural and human-made catastrophes. And we are probing the impact of global warming on urban coastlines and other ecosystems.

But to keep investigation and knowledge creation flourishing at Northeastern, we seek the support of generous advocates who understand the importance of fueling research solutions that transform lives.

Northeastern is thoughtfully pursuing increased backing from private donors and industry sources to amplify our ability to attract government grants. With the help of these powerful philanthropic partnerships, our research initiatives can better society and bring meaningful change to the world.

MEASURES OF OUR MOMENTUM

Northeastern's research enterprise is grounded in the priority to solve our planet's most urgent problems and to improve people's lives. Our world-class faculty members are leading the charge with their path-breaking advances, both within their fields and across disciplines.

\$182.6 million } in external research support in 2019–2020; up 275% since 2006

2,042 } patent applications filed by faculty and students since 2016

35+ } federally funded research centers

THE INTERDISCIPLINARY SCIENCE AND ENGINEERING COMPLEX



Opened in 2017, Northeastern's 220,000-square foot ISEC is transforming the university's research enterprise by providing state-of-the-art shared, flexible, and adaptable core facilities, fostering collaboration across disciplines, and increasing the capacity to hire top faculty and academic leaders.

A renowned expert on the spread of infectious disease, **Alessandro Vespignani** mobilized an interdisciplinary team to forecast the growth of COVID-19 in real time. "In an interconnected world like ours, we are all in the same boat," says Vespignani, the Sternberg Family Distinguished University Professor. "Network science is crucial to studying, modeling, and describing how viruses spread—and philanthropy is the catalyst for this work."





“I am grateful for the ways in which this endowed professorship enables me to be a public voice for the humanities, for critical thinking and humanistic research,” says **Carla Kaplan**, the Stanton & Elisabeth Davis Distinguished Professorship in American Literature. “It could not be more urgent to spread the message of the humanities across the university and the country.”

OPPORTUNITIES FOR SUPPORT

Innovation—the hallmark of Northeastern’s culture—fuels the engines of our creativity in education and research. Philanthropy is essential for enabling the kind of bold, calculated risk-taking that enriches learning, supports entrepreneurship, and furthers discovery. Support from alumni, friends, and industry and government partners will ensure that our remarkable momentum continues.

Seed Funding for Research. Northeastern is assembling teams of faculty from disparate fields—computer science and health-risk assessment, for example—whose lines of inquiry are yielding cutting-edge results. Seed funding from donors enables investigators to test inventive new hypotheses. Armed with preliminary data, they can compete for larger federal grants to move their research forward.

New Degree Programs Emphasizing Research. Northeastern grants degrees in more than 250 majors, and in over 200 graduate programs. Donors can help us develop groundbreaking degree programs and research initiatives in emerging disciplines. We recently launched a doctoral program in network science, for example, and one of the first master’s degrees in regulatory affairs for drugs, biologics, and medical devices.

Modern Education-Delivery Systems. Today’s students demand instruction on site, online, and in combined formats to drive their research across disciplines. To keep pace with the needs of students diverse in age, experience, and professional interests, Northeastern is experimenting with innovative course structures and “virtual classroom” digital technologies. Donors can help us prepare students for the careers of tomorrow.

Facilities. Some centers, such as the Center for Neglected Diseases, urgently need space for the cross-disciplinary study of data and ideas, while others require modernization and new equipment. Support from individuals, foundations, and corporations for academic facilities, research centers, and institutes will keep investigators at the forefront of invention and exploration.

LEADING THE CHARGE

Northeastern’s supporters are advancing interdisciplinary faculty and student collaborations—as well as strategic partnerships with government, academia, and industry—to address global imperatives in health, security, and sustainability. Philanthropy is essential to meeting our goals in bold, dramatic ways, and it is vital to opening new, use-inspired lines of inquiry that improve lives.

745 } tenured and tenure-track faculty hires since 2006—many of whom lead vibrant research endeavors

250+ } external research awards of \$1 million or more since 2006

73 } spinout companies formed by faculty and students, 2006–2020



Hao Sun, assistant professor in the College of Engineering, received a fellowship from the Vilas Mujumdar Strategic Resilience Fund to further his investigative work. “Philanthropy is a source of encouragement for us to do cutting-edge, interdisciplinary research related to the community and to public policy,” says Sun. “This fellowship helps provide critical and strong links between public policy and engineering aspects of our research.”