Over the course of the past seven years, federal funding for Northeastern research has more than doubled. At the heart of that upward trajectory is the university’s use-inspired approach, where multidisciplinary teams of some of the top researchers in the world are focused on solving the nation’s greatest challenges in health, security, and sustainability.

Albert-László Barabási, Distinguished Professor of Physics

Barabási and his world-leading network science team are revolutionizing medicine. They’re mapping the molecular and genetic links between diseases: the “human diseaseome.” It’s a breakthrough that will give physicians and researchers alike a powerful new tool to forecast and treat disease—just one example of the way network science can transform our understanding of the way the world works.

Recent Grants

- $2.5 million from the U.S. Army Research Laboratory
- $1.2 million from the National Institutes of Health
- $1 million from the U.S. Department of Defense

northeastern.edu/tomorrow
Kim Lewis, University Distinguished Professor of Biology

Lewis’ work on persister cells could refocus the direction of antibiotic drug development. He and his team have discovered that these bacterial cells survive antibiotic treatment by going dormant, and they are using that discovery to explore novel therapeutics that could have a big impact on chronic infection treatment.

Recent Grants

- $2.1 million from the National Institutes of Health
- $499,908 from the National Institutes of Health
- $390,198 from the National Institutes of Health

Laura Lewis, Cabot Professor of Chemical Engineering

An expert in nanotechnology, Lewis has devised a novel approach for producing superstrong magnets that could reduce the cost of alternative energy and make us less reliant on rare earth materials. Her work is also helping to dramatically decrease the time it takes to produce these supermagnets.

Recent Grants

- $3.5 million from the U.S. Department of Energy

For more information, contact Tim Leshan, vice president for government relations, 617.373.8528, t.leshan@neu.edu, or visit northeastern.edu/governmentrelations.

Heading Up Green Computing

In today’s competitive, data-intensive research environment, innovation in any area of global concern—particularly health, security, and sustainability—is impossible without creating a computational infrastructure for translating data in solutions. Northeastern is playing a leadership role in this arena as part of the Massachusetts Green High-Performance Computing Center (MGHPCC), an unprecedented collaboration among four peer institutions (MIT, Boston University, Harvard University, and the University of Massachusetts), industry partners, and the Commonwealth of Massachusetts. The 90,300-square-foot facility has the capacity for 10 megawatts of power for computing, enabling researchers to mine and analyze vast amounts of data—from the pathways of human social interaction to the complex structure of proteins—using one of the nation’s most energy-efficient network of computers.

In April 2013, Mel Bernstein, Northeastern’s senior vice president for research and graduate education, was selected to lead the groundbreaking effort and was appointed MGHPCC president.