Northeastern is committed to creating a cleaner, more sustainable environment, particularly in urban areas. With the majority of the world’s population concentrated in cities, our researchers are focused on designing resilient urban environments that have minimal impact on the ecosystem.

Sanjeev Mukerjee, professor of chemistry and chemical biology

Mukerjee is developing new technologies to fuel the next generation of electric cars. He and his team are working on cheaper, polymer-based catalysts for fuel cells and less expensive, high-efficiency superbatteries—solutions that could power a low-cost electric car capable of driving from San Diego to San Francisco on a single charge.

Recent Grants

- $8 million from the Department of Energy, the Department of Defense’s Army Research Office, DuPont, and the U.S. Army’s Communications Electronics Research, Development, and Engineering Center for Northeastern’s Center for Renewable Energy Technology
Matthias Ruth, professor of public policy and civil and environmental engineering

Ruth’s research on the long-term impact of climate change on coastal cities shows that proactive “green” measures are the most cost-effective choice. He and his team project that do-nothing policies will take the biggest financial and environmental toll—a toll that rises with each day’s delay.

Recent Grants
- **$15,113** from the National Science Foundation

Carolyn Lee-Parsons, associate professor of chemical engineering, chemistry, and chemical biology

Lee-Parsons analyzes the machinery of microalgae cells in the quest to produce biodiesel fuel more efficiently. Because biodiesel can store more than 10 times the energy of ethanol, Lee-Parsons and her team could achieve a breakthrough in renewable energy production.

Recent Grants
- **$403,415** from the National Science Foundation
- **$40,000** from the Massachusetts Technology Transfer Center

Exposing Toxins in the Home

Many contaminants are easy for the public to spot, like emissions from the tailpipe of a car or the sludge from a massive oil spill washing up on the ocean’s shores.

But Northeastern researcher Phil Brown says many others are far less easy to identify—including those found in beauty products like deodorant and cologne or in flame retardants. Brown studies people’s exposure to these contaminants, resulting in significant environmental policy changes—both locally and globally.

Always attuned to the world’s emerging environmental health issues, Brown has examined high-profile cases of contested illnesses, including one that resulted in numerous deaths from leukemia among children in Woburn, Mass.

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