

WHY SUPPORT RESEARCH AT THE DEPARTMENT OF DEFENSE?

FOR STARTERS, SO WE CAN STUDY THE EFFECTS OF JET-PROPULSION FUEL ON MILITARY PERSONNEL.

The United States depends on research in science, technology, and innovative engineering not only to protect the American people but to prepare us to meet the challenges of an uncertain future. Boston University receives more than \$18.7 million in research funding from the Department of Defense (DoD) to develop world-class science, technology, engineering, and math capabilities for the DoD and the nation.

FUEL FOR THOUGHT—THE POTENTIAL LONG-TERM EFFECTS OF EXPOSURE TO JET FUEL.

Over one million people in the US are occupationally exposed to jet-propulsion fuel every year. But thanks to environmental health researchers at Boston University and funding from the US Army, research is well under way on how repeated exposure affects our military personnel. The jet-fuel study is designed to examine whether daily exposure to JP-8, a newer fuel blend, is associated with adverse health effects, such as nervous system impairment. One goal of the research is to identify key risk and protective factors for exposure to JP-8, and assess the relationship between exposure and health.

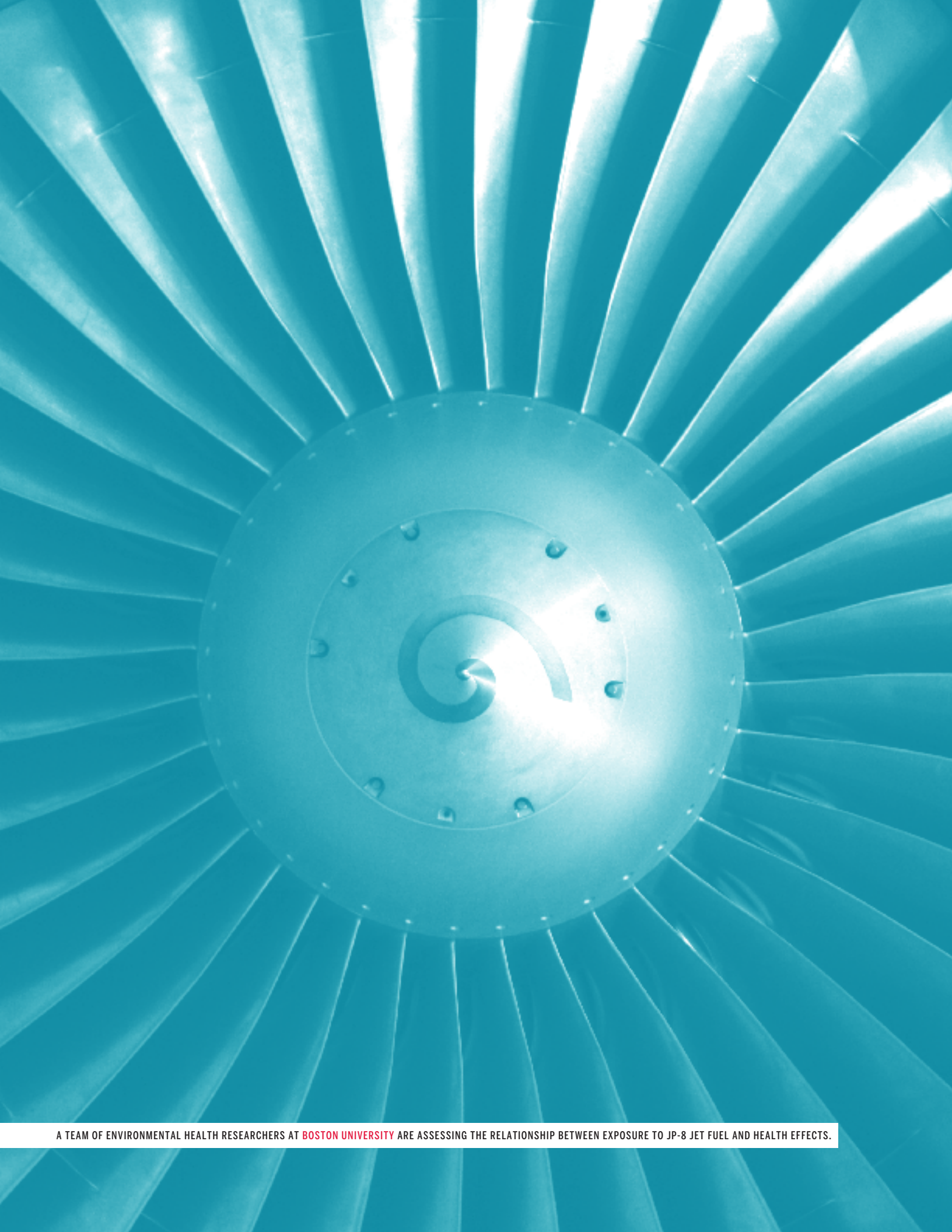
TURNING STUDENTS' WORLDS UPSIDE DOWN IS A GOOD THING. FOR THEM—AND US.

Members of the Boston University Student Satellite for Applications & Training (BUSAT) team participated in a weeklong series of microgravity flights over the Gulf of Mexico. Through NASA's Flight Opportunities Program, the students were able to test and fine-tune the space-worthiness of a prototype modular satellite designed to deliver scientific instrumentation into orbit. Funded in part by the US Air Force's Office of Scientific Research, the satellite project is the result of six years of efforts by more than 60 undergraduate and graduate students studying engineering, computer science, physics, and astronomy.

HOW DO YOU TEACH A ROBOT TO BE LESS ROBOTIC? YOU START WITH MICE, OF COURSE.

The US Office of Naval Research has funded a Multidisciplinary University Research Initiative (MURI), led by Boston University, to build robots that can figure out and communicate where they are within a building. The goals of the MURI grant include understanding how rats keep track of their location, and then applying that mechanism to robots, so robots can work as a sidekick to soldiers searching dangerous buildings and alleyways.

We hope you'll give strong consideration to supporting research funding for the DoD. If you have any questions or would like to discuss further the role that DoD research plays in our daily lives, please visit bu.edu/federal.



A TEAM OF ENVIRONMENTAL HEALTH RESEARCHERS AT **BOSTON UNIVERSITY** ARE ASSESSING THE RELATIONSHIP BETWEEN EXPOSURE TO JP-8 JET FUEL AND HEALTH EFFECTS.