



Department of Defense

SUPPORTING U-M RESEARCH AND SCHOLARSHIP



\$82 MILLION

Research Supported by
DoD in FY22



432

Active Projects
Supported by DoD



803

Faculty, Postdocs and
Grad Students Supported
Annually by DoD

The Department of Defense partners with researchers across U-M to provide branches of the military with the necessary resources to ensure they are well-equipped to address complex challenges and threats facing our nation.



1,000-cycle lithium-sulfur battery could quintuple electric vehicle ranges

A new biologically inspired battery membrane has enabled a battery with five times the capacity of the industry-standard lithium ion design to run for the thousand-plus cycles needed to power an electric car. With support from the Department of Defense, U-M researchers discovered that a network of aramid nanofibers, recycled from Kevlar, can enable lithium-sulfur batteries to overcome their Achilles heel of cycle life – the number of times it can be charged and discharged.



Exploring the long-term effects of concussions in athletes, military service members

Concussions are a fundamental concern facing the U.S. military, the sports medicine community and society at large. Supported by a \$42 million award from the DoD, U-M researchers are leading the largest-ever concussion and repetitive head impact study. Their findings aim to uncover long-term effects of concussions in student-athletes and military service members.



Spinal fluid sampling used to track treatment response in pediatric glioma

Treatment for glioma has long relied on MRI imaging to track tumor markers and treatment response. But research findings, led by a team of U-M faculty with support from the DoD, suggest a new method could provide additional data about tumor markers before changes appear on an MRI, indicating possible strategies to help clinicians address this aggressive form of cancer.



For more information about U-M research, visit research.umich.edu

