NATIONAL SCIENCE FOUNDATION

SUPPORTED RESEARCH AT THE

UNIVERSITY OF MICHIGAN

$79M
Research Expenditures

11%
Percentage of Overall U-M Federal Support

1191
Active Projects
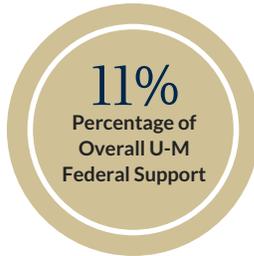
FY 2016 Research Expenditures: $79,236,809

Year-to-year, National Science Foundation-supported projects involve about:

Faculty Researchers..875
Postdoctoral Fellows..91
Graduate Student Researchers...129

Examples of U-M projects supported by the National Science Foundation (NSF):

BIG DATA PROJECT AIMS TO WIDEN BOTTLENECK TO DISCOVERY

Buried in troves of data that scientists have gathered, but not yet analyzed, could be key insights to improving cancer treatment, understanding Alzheimer's, predicting climate change effects and developing cheaper, clean energy technologies.

A $5 million data storage and networking project led by U-M aims to widen what researchers describe as a bottleneck to scientific discovery. Through an NSF-funded project, U-M, Michigan State University, Wayne State University and Indiana University will install advanced data storage software and hardware, and open new frequencies on the high-speed research computing network.

INSPIRED BY ART, LIGHTWEIGHT SOLAR CELLS TRACK THE SUN

Solar cells capture up to 40 percent more energy when they can track the sun across the sky, but conventional, motorized trackers are too heavy and bulky for pitched rooftops and vehicle surfaces.

By borrowing from kirigami, the ancient Japanese art of paper cutting, researchers at U-M have developed an array of small solar cells that can tilt within a larger panel, keeping their surfaces more perpendicular to the sun's rays.

TURNING WASTE INTO A SAFE CROP FERTILIZER

Converting human urine into a safe fertilizer for agricultural crops is the goal of a $3 million grant from NSF.

This endeavor has the potential to grow food in a way that saves money and resources, while reducing water pollution.

U-M researchers will test advanced urine-treatment methods, and also compare the public health and environmental risks of urine-derived fertilizers, synthetic fertilizers and treated sewage.