



Discovering solutions to our greatest challenges

MnDRIVE is a landmark partnership between the University of Minnesota and the state that aligns areas of university strength with the state's key and emerging industries to produce breakthrough research that addresses our state and society's greatest challenges. In 2013, the Minnesota Legislature authorized a \$36M biennial investment in four university research areas:

- **Robotics, sensors and advanced manufacturing** – Leveraging strengths in STEM fields to develop innovations and industries that propel the state's economy forward and fulfill workforce needs
- **Global food ventures** – Partnering research, agriculture and industry to develop sustainable solutions for securing the global food supply
- **Advancing industry, conserving our environment** – Research-based solutions to environmental challenges in support of sustainable economic growth
- **Discoveries and treatments for brain conditions** – Partnering with industry to develop new treatments for brain conditions that improve human health and quality of life

In the first year, \$34.5M has been authorized for more than 120 MnDRIVE projects across the four research areas involving approximately 354 researchers in 70 departments, 20 colleges and three campuses (Twin Cities, Duluth and Morris).

Highlights

- Hired 173 people, including 22 faculty, 61 graduate students and 36 staff and technicians
- Awarded nearly \$6M in funding for 12 transdisciplinary research projects that involve 87 faculty in 50 departments and 16 colleges across three campuses. Projects are supported by 31 external partners, including Cargill, 3M, Medtronic, Great River Energy, Georgia Pacific and four state agencies
- Constructed a 4,300 sq ft robotics lab to advance cutting edge robotics research
- Submitted 31 patents and licenses
- Created six Transdisciplinary Faculty Fellowships to provide leadership in transdisciplinary collaborative projects that have an informatics component
- Leveraged \$19M in state, federal and private funding, including major companies such as Boston Scientific, National Science Foundation and National Institutes of Health
- Held more than 150 meetings, symposia, workshops and conferences with more than 10,000 attendees ranging from researchers and students to industry partners and academic collaborators

Notable successes

- **Robotics** – Reached more than 10,000 K-12 students statewide through various outreach efforts and held in-depth week-long summer day camps for nearly 100 kids that included creative high-tech activities, tours and demonstrations
- **Global food** – Created partnerships with 58 Minnesota companies, including General Mills, Land O' Lakes and Cargill, to develop new technologies that will help ensure a safe, secure and sustainable food supply
- **Environment** – Started two field-based demonstration projects using microorganisms to clean up mining-impacted waters and agricultural runoff, developing novel technologies to improve water quality and environmental stewardship across Minnesota
- **Brain conditions** – Provided national leadership for a large clinical trial (20 sites, >300 participants) funded by Boston Scientific to test a new device designed to treat the symptoms of Parkinson's disease and improve the quality of life for many of the nearly one million people in the U.S. affected by the disease

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Learn more at www.mndrive.umn.edu