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 began a recurring annual investment of $18M 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

Since its inception, MnDRIVE research across the four research areas has involved more than 980 researchers in more than 100 departments, and dozens of colleges across three campuses (Twin Cities, Duluth and Morris).

In its 2017 session, the Minnesota Legislature passed additional funding ($4 million per year) for a MnDRIVE Cancer initiative, which will focus on creating a network of statewide multi-site cancer clinical trials. Cancer is the leading cause of death in Minnesota, and a broadened network will enhance providers’ knowledge, increase patient access to care, and lessen the time it takes to find a cure.

**Highlights**

- To date, MnDRIVE research has resulted in 677 hires, including 31 faculty and 106 lab technicians, graduate students, undergraduate researchers and post-doctoral associates.
- So far 60 trainees involved with MnDRIVE research have graduated and gained employment with organizations such as Boston Scientific, Ecolab, Sundial Solar Energy, and Reg Life Sciences.
- During the first six months of 2017 alone, researchers involved in MnDRIVE work have disclosed 28 inventions for patents or licensing and have received more than $25 million in funding from external sources such as the National Science Foundation, Dupont, Allina Health, and Xcel Energy. The total amount of external funding leveraged through MnDRIVE to date is more than $200 million.

**Notable successes**

- **Robotics** – New MnDRIVE faculty initiated an industry collaboration with NovaCentrix, the industry leader in photonic curing tools for flexible electronics manufacturing.
- **Global food** – A deep-winter greenhouse prototype has been designed in collaboration with local industry, and has the potential to make access to fresh, local greens a reality for more Minnesotans year-round.
- **Environment** – Research on phosphate removal by a MnDRIVE faculty hire (Dr. Mikael Elias) received the University of Minnesota Grand Challenge award.
- **Brain conditions** – The Abbott Infinity System, a deep-brain stimulation device, was implanted for the first time ever in Minnesota by new MnDRIVE faculty, Dr. Michael Park.

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