

# UMBC News

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## **Plant Sensory Systems Receives DOE Grant**

### ***Funding Will Allow Company to Develop Plants with Increased Seed Oil for Biofuels***

Plant Sensory Systems, a resident of bwtech@UMBC's Incubator, has received a Phase I Small Business Innovation Research (SBIR) grant from the U.S. Department of Energy. The nine-month, \$100,000 grant began July 1. The grant will help the company test new genetic modifications on its laboratory plants to divert carbon into seed oil more efficiently.

Founded by the husband-and-wife team of Frank and Kathleen Turano last July, Plant Sensory Systems is a biotechnology company that develops technologies to improve agricultural productivity. The company plans to license its technologies to seed and agricultural biotechnology companies.

The grant from the DOE will be used for research on genetic modifications that will enhance the ability of plants to convert carbon to oils, thereby making the seeds they produce more oil-rich. Once extracted from the seeds, the oils could be used in either cooking oils or biodiesel production, which is consistent with the DOE's objective to create alternative fuel sources. The company is currently using Arabidopsis plants in its research activities; if successful, it will start testing its hypotheses on canola plants.

If the company experiences success in its research and shows that the project is feasible, it will be eligible to apply for a Phase II, two-year grant from the DOE.

“We are glad that the DOE is supporting our project to develop alternative fuel sources,” said Kathleen Turano. Added Frank Turano: “We are excited about this grant and the opportunity to continue our research that we hope will benefit not only the DOE, but society in general.”

“Plant Sensory Systems is engaged in groundbreaking work in the field of agricultural technology and alternative fuel sources,” said David Fink, director of entrepreneurial services at bwtech@UMBC. “We are pleased that the DOE has recognized the potential of its research with this award.”

**About bwtech@UMBC:**

bwtech@UMBC (<http://www.bwtechumbc.com>) is a 71-acre research and technology community at the University of Maryland, Baltimore County (UMBC). It comprises the technology business Incubator and Accelerator, home to over 30 early-stage high-tech and life science companies, and the Research and Technology Park, with a capacity of 350,000 square feet of office and laboratory space. bwtech@UMBC offers collaboration with university faculty and students, and enjoys a strategic and convenient location, close to downtown Baltimore, BWI Thurgood Marshall Airport, and Washington, D.C. bwtech’s annual economic impact on the state is estimated to be over \$300 million.

**About UMBC:**

UMBC is a medium-sized public research university of 12,000 undergraduate and graduate students who collaborate with faculty to address real-world challenges. Located just south of Baltimore near I-95 and the BWI airport, UMBC's residential campus houses state-of-the-art facilities in the sciences, engineering, arts, social sciences and humanities. UMBC combines the energy of a research university with the close community feel and attention to individual students found in liberal arts colleges.