

Discovery Park Impact

Matrix-Bio Inc.

NEED

Significant global demand exists for a noninvasive, accurate and reliable technology that would identify the biomarkers for early breast cancer detection in blood or other biofluids.

INITIATIVE

Dr. Daniel Raftery, Purdue chemistry professor and active member of the Bindley Bioscience, Cancer, Oncological Sciences and Energy centers in Discovery Park, wanted to take his promising research on using advanced analytical chemistry technology for breast cancer diagnosis from his laboratory to the marketplace. Raftery's technology builds on the strengths of two instrumentation developments:

- Mass spectrometry, which is highly sensitive for detection
- Nuclear magnetic resonance, which is highly reproducible.

He combined the strengths of these two technologies and put together his Discovery Park research team, which included an expert on mass spectrometry who would complement his expertise on nuclear magnetic resonance. The result is technology that analyzes multiple small molecule metabolite biomarkers present in biofluids such as blood and urine that can detect cancers at an early stage.

IMPACTS

- Raftery's research led to the 2007 launch of Matrix-Bio, Inc., an Indiana company developing early screening procedures to be used in doctors' offices in the next couple of years.
- The Office of Technology Commercialization and Discovery Park reviewed Raftery's first business plan in fall 2005 and offered strategic changes and also filed patents to protect the intellectual property. With a revised business plan, Matrix-Bio placed second in the 2007 Burton D. Morgan Entrepreneurial Business Plan Competition.
- Raftery also submitted an executive summary and investment presentation to Lonergan Partners in May 2007. MatrixBio was one of three companies selected to travel to Silicon Valley for presentations to potential investors. Raftery also attended a Discovery Park session on understanding and negotiating successful term sheets.
- In spring 2007, he participated in Burton D. Morgan Center's Elevator Pitch competition, which is designed to teach faculty and students how to convey succinctly and effectively the marketability of their product. Raftery won the competition.
- Raftery closed a seed round investment for Matrix-Bio in December 2007, and is in line to receive follow-on funding.
- Based on the progress at Discovery Park, Raftery's lab at Purdue has recently received major NIH funding for continued development of the technology that will be licensed to Matrix-Bio for future development.
- Through the continued support of Discovery Park and Purdue Research Park staff, management consultants and an attorney have been identified for MatrixBio. Additional funding has been secured for MatrixBio. Discovery Park and the Purdue Research Park will continue to work to ensure the company's success.

