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Notre Dame, MTT in deal

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WEST CHESTER — Molecular Targeting Technologies Inc. has entered into a exclusive licensing deal with the University of Notre Dame for a novel sensing technology that could be used to diagnose cancer, heart disease and other medical conditions.

The technology, developed by Notre Dame professor Bradley Smith, can selectively target dead and dying mammalian cells as well as bacteria. When the targeting component is attached to a fluorescent probe for improved imaging, it has been used successfully to identify mammary and prostate tumors and bacterial infection in mice.

Terms of the agreement, signed this month, were not disclosed.


Smith


Pak

"This unique probe has the potential to image cell death as a means to intervene early in diseases and rapidly determine the effectiveness of treatments," Smith said. "Imaging of cell death is broadly useful for treatment of numerous conditions, including cardiovascular diseases, neurology, renal diseases and even transplant rejection."

Chris Pak, president and CEO of Molecular Targeting, said one of the advantages of the targeting probe is it can be used for in vitro (an artificial environment outside a living organism such as a test tube) applications as well as for in vivo (in living organisms) molecular imaging.

"We believe that this technology has the potential to target myocardial ischemia, Alzheimer's disease, cancer and bacterial infections," Pak said.

He said the technology may have therapeutic applications, but for now the company is focusing on its diagnostic use. He said another unique feature is that the molecule it licensed can target different cell types including tumors cells, bacteria and viruses.

Dr. Brian Gray, vice president of research at Molecular Targeting , said the company is offering a range of fluorescent versions of the targeting molecule, called phosphatidylserine, for research applications under the name PSVue. The product line hit the market this week.

Founded in 2001, Molecular Targeting develops and markets small molecules used for the molecular imaging of cardiovascular diseases and cancer.

Pak started the company with two patents he developed, pertaining to the use of nuclear imaging for the rapid diagnosis of heart attack, breast cancer and stroke, while he was a researcher at Centocor in Malvern. Molecular Targeting licensed the drug-targeting technologies from Centocor, a Johnson & Johnson subsidiary now based in Horsham.