

His job: Magician

By THOMAS LEE, Star Tribune

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When the University of Minnesota needed a new vice president of research in 2005, the school searched the country for someone who could breathe much-needed life into its sleepy technology transfer office.

As it turned out, the U didn't have to look far. As associate vice chancellor for research policy at the University of Wisconsin in Madison, Tim Mulcahy already was intimately familiar with his cross-border rival.

Under Mulcahy, the U of M's Office for Technology Commercialization has recruited experienced industry executives, wooed corporations and venture capitalists, and developed ways to better market the school's intellectual-property assets.

The University of Minnesota "had a dynamic research environment," Mulcahy said in an interview last week. "It was charting a brighter course. The U saw a great opportunity to break tradition and try to do something differently. This was a chance to get in on the ground floor."

Mulcahy's efforts so far have won praise from both state officials and business leaders. The university and business community "didn't complement each other for a while, but that's changing," said Dale Wahlstrom, a former Medtronic executive who is now chief executive of the BioBusiness Alliance of Minnesota.

The school's relationship with outside firms often had been nonexistent or contentious. In 2005, the Itasca Project, a Twin Cities CEO think tank, polled its members over their top economic development concerns: The university was No. 1, recalled Jim Campbell, who formerly ran Wells Fargo's operations in Minnesota.

"Several CEOs said their companies were either not aware or deeply engaged with much of the research being done at the U," Campbell said. "When you look at the [nation's] hotbeds of economic activity, there are very close, intense relationships with research universities."

Mulcahy, who holds a doctorate in pathology and radiological sciences, said he recognized that the university needs to be less dependent on state and federal aid. Over the past few years, the National Institutes of Health has given less research money to universities. And last month, Gov. Tim Pawlenty proposed cutting \$29 million in state funding for the university in 2008-09.

Money from licensing deals and successful start-ups could not only help offset those cuts but also allow the school invest in its own priorities, Mulcahy said.

Most of the money the U relies on to fund its operations "comes with strings attached," he said.

"There is not a lot of discretion in funds."

At the same time, there is "a growing expectation that the U is going to contribute to economic development in a meaningful way," Mulcahy said.

"I'm not sure if my predecessors had the same mission."

Perhaps it's no accident that the University recruited Mulcahy from its neighbor. Over the years, the University of Wisconsin-Madison has drawn praise for its innovative ways to commercialize technology. The university has a long-standing partnership with the Wisconsin Alumni Research Foundation (WARF) a private, nonprofit organization that patents inventions from university research, licenses the technology to companies, and then returns the income to the school. Since 1928, the group has contributed more than \$900 million to university research efforts.

As a top research official, Mulcahy worked with WARF regularly, experience he believes helped win him the job in Minnesota.

"I have to tell you, WARF has great cachet," Mulcahy said. The U even discussed creating its own version of WARF but decided it was too complex, he said.

In 2006, the University of Wisconsin spent \$832 million on research and earned \$42.4 million in licensing income, according to statistics compiled by the Association of University Technology Managers. The University of Minnesota spent \$594 million on research and earned \$56.2 million in royalties. But most of that income came from Ziagen, an anti-AIDS drug, whose patents will expire beginning next year. The University of Wisconsin spun off seven companies compared with Minnesota's three.

One of Mulcahy's first priorities when he arrived in Minnesota was to recruit industry professionals like former Honeywell executive Jay Schrankler to run the Office of Technology Commercialization. The office traditionally had been staffed with academics who had little or no business experience.

In the past, many of the university's start-ups failed because the school lacked the business talent to fully develop the ideas before it sought outside capital, experts say.

"What we have not seen is a lot of opportunity out of the U that had all of the ingredients in place," said Michael Gorman, a managing director with Split Rock Partners, an Eden Prairie-based venture capital firm that specializes in start-ups. The companies "were not married to a fundable business plan or managerial talent."

The school hired a half dozen "strategy managers" with experience in fields like software, pharmaceuticals and medical devices to determine if faculty research or technology can be licensed or spun out into new companies. The Venture Center, under former investment banker Doug Johnson, launched a "CEO in Residence Program" in which outside entrepreneurs and business people regularly examine potential start-ups, mentor MBA students and help structure deals.

"We want to create an environment to be ready for the next Ziagen," Mulcahy said. "It's difficult to transition innovation into a reliable revenue stream. We must have a system to connect innovation and business."

So far, so good

Mulcahy's changes have impressed outside investors.

"The University of Minnesota has developed a program that may have 'cracked the code' on how to identify and extract disruptive innovation from a major research university and, importantly, how to ensure that its first steps outside the womb are successful," said David Spreng, managing general partner of venture capital firm Crescendo Ventures.

Based in Palo Alto, Calif., Crescendo, which also has an office in Minneapolis, specializes in early stage technology companies.

Mulcahy also has worked hard to repair the U's relationship with the business community. In 2006, the school established the Academic and Corporate Relations Center to serve as the "front door" for companies seeking access to the university. In the past, "nobody knew whom to call," Gorman said.

Last year, the center won a Tekne Award for "innovative collaboration of the year." The annual awards are presented by the Minnesota High Tech Association, Minnesota Technology, and LifeScience Alley in recognition of superior leadership, development, commercialization and management of technology in Minnesota.

The school also revamped the way it shares intellectual property with outside firms. Instead of signing contracts on individual research, the university negotiates long-term "master agreements" with companies like Cargill and Medtronic. The negotiating process now takes weeks instead of months, Mulcahy said. The university and companies also work out a series of "conditions" to determine how to share in the profits of a venture.

"The university was willing to accept a smaller royalty in exchange [for getting the technology] out there," Wahlstrom said. "It's better to get a smaller percentage of something than 100 percent of nothing."

Schrankler and Johnson say their goal is to spin off three companies a year, including one that has the potential to go public in five years with at least a \$250 million market value. They also hope to generate \$50 million to \$60 million in royalty income annually.

While creating new companies is inherently risky, both men noted several promising products to come out of the university. The school recently spun off Orasi Medical, which is developing technology to help quickly diagnose neurological diseases like Alzheimer's. Johnson said several VC firms are also interested in a university start-up that's developing a hemorrhagic shock drug designed to stop blood loss from major injuries, such as those suffered in a car accident.

Johnson also pointed to the work of Dr. Doris Taylor, whose team successfully grew a heart in a

jar. Regenerative medicine "could be a massive new industry," Johnson said. "This place could be in the forefront of developing these new industries There is plenty of world-class technology at the U."

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