

## Minnesota-Canada cross-border bioscience projects begin to bear fruit

by Dan Haugen Special to Finance and Commerce April 14, 2009

Reggie Bowerman is a Midwestern kind of guy.

So when his employer of nearly a decade, MGI Pharma, packed up and moved to New Jersey last year, Bowerman was one of several local employees who chose not to make the move.

Instead, he became CEO of DiaMedica, a pharmaceutical company based in Winnipeg, Manitoba.

"I made an assumption that [Canadians] might look at the world with more of the same perspective than a guy from Manhattan might. Since then, it's been nothing but reinforced," said Bowerman, who is based in the Twin Cities and commutes to Winnipeg as necessary.

Bowerman's story is an example of the growing number of cross-border ties between Minnesota-based biotech communities and their Canadian counterparts. The trend comes on the heels of several years of networking efforts by Minnesota bioscience boosters, who believe the state could be on the cusp of a sea change of collaboration with our neighbors to the north.

Canada is Minnesota's largest trading partner, representing about one-fourth of all state exports. For the most recent quarter, Minnesota's exports to Canada were valued at \$1.05 billion, more than three times the amount exported to China during the same period, according to the Minnesota Department of Employment and Economic Development.

Historically, trade with Canada has focused on sectors such as agriculture, computers and machinery. An effort is under way by state and industry leaders to broaden that list to include the biosciences. Officials believe more cross-border collaboration between Minnesota and Canada could be a boon to both regions' bioscience industries.

Life Science Alley, a nonprofit trade association, is working to expand its influence beyond Minnesota, and in recent years, that's included a major outreach effort across the northern border.

For the past five years or so, the association has regularly sent delegations north to attend events and conferences and meet with industry leaders and government officials. Likewise, they've also extended invitations for Canadian bioscience companies to attend events and conferences in Minnesota and meet with our state economic development officials.

Life Science Alley's CEO, Don Gerhardt, also sits on the board of Bioscience Commercialization Canada, a Winnipeg trade association, which like Life Science Alley has a mission of expanding its connections with its next door neighbor. In his role, Gerhardt has traveled to Winnipeg every few months for the past five years, attending board meetings and seeking out potential relationships.

At the state level, Gov. Tim Pawlenty's first trade mission was a trip to Montreal in September 2003 to promote the bioscience industry. And in June 2004, Pawlenty signed a memorandum of understanding with Manitoba Premier Gary Doer that encourages cross-border collaboration between the two states on bioscience research and commercialization.

Minnesota and Manitoba also continue to co-host an annual networking event at an international bioscience industry conference.

All the travel back and forth now appears to be showing early signs of results, with "interesting and high-potential activity" popping up in both markets, Gerhardt said.

"We're just starting to see companies poke their head around the prairie grass and take a look at the other side of the border," Gerhardt added.

The cross-border collaboration is critical, Gerhardt said, because Minnesota alone isn't a large enough market to fully support all the components that go into a successful bioscience industry. That's why many bioscience companies are clustered on the coasts. It's widely believed that combining the skills and population of the Upper Midwest, including Canada, makes the region becomes much more competitive.

One measure of the trend is attendance at the annual Life Science Alley conference. The number of Canadian companies participating in the event has increased from six in 2006 to 48 in 2008. Alberta and Manitoba were also major sponsors of the most recent conference at the Minneapolis Convention Center in December.

Meanwhile, the anecdotal evidence is growing:

Boston Scientific's line of Taxus drug-eluting stents relies on a pharmaceutical that was developed by a British Columbia company, Angiotech.

In November, Medtronic spent \$325 million to acquire Cryocath, a Quebec medical-device company that makes a treatment for atrial fibrillation.

Then there are the several small startup companies, such as DiaMedica, that are linking Canadian research to leadership talent in the Twin Cities.

Bowerman started as CEO of DiaMedica in February. The company is developing a Type 2 diabetes treatment, which it hopes to have on the market by around 2015. The company is based in Winnipeg, but as it grows, it plans to establish an office in the Twin Cities, too. It's a good match, Bowerman said, because it allows the company to tap into a larger talent pool in the Twin Cities.

The split-office arrangement is useful, Bowerman said, because it allows companies to hire people from both markets who might be reluctant to relocate across the border. There are complications; for instance, the company is subject to two sets of laws, but the situation also opens access to two sets of networks for sales, financing and research.

A Burnsville company called Exsulin is also working on a diabetes treatment that originated in Canada. (Insulin was discovered in Canada, and diabetes research remains one of its strengths.) Exsulin is developing a Type 1 diabetes treatment based on technology that originated from McGill University in Montreal.

Founder and CEO Lisa Jansa just returned last week from a trip to Montreal, where she met with an investigator who will be conducting a clinical trial for Exsulin. She chose McGill University for the clinical trial, in part because of the support the university has given the technology, but also for symbolic reasons.

"Insulin was actually discovered in Canada. We thought it would be almost poetic in some ways that this next breakthrough could come from Canada," Jansa said.

The U.S. Food and Drug Administration, however, requires a similar but separate approval process, so Exsulin will also conduct a clinical trial in the United States.

Jansa learned about the technology through a colleague who was at the FDA when McGill University researchers were conducting their original research. She wasn't aware of Life Science Alley's efforts to bridge the bioscience communities then, but she says she is now benefiting from the association's work, particularly by being able to network with Canadian companies at the annual conference.

In addition to diabetes, Canada is also known for neuroscience research. That makes it an important market for Pete Shuster, owner and CEO of Neuromics. The Edina-based company sells materials such as proteins, antibodies and stem cells for use in neuroscience research.

"The reason we're focusing on Canada is that neuroscience is our core niche, and there are many, many great

neuroscience labs in Canada," Shuster said.

Neuromics has had success generating sales in Canada using conventional marketing techniques, Shuster said, and he hopes Life Science Alley might help open some new doors for him, too. The costs of doing business in Canada are favorable compared with Europe, he said, and unlike Europe there are no import or export fees because of the North American Free Trade Agreement.

NAFTA has made doing business with Canada as easy as doing business with Wisconsin, Shuster said. Companies seeking to sell regulated drugs or devices will encounter separate regulatory issues on each side of the border, however. Gerhardt said both sides have legal and regulatory experts well versed in guiding companies through the process.

The state's deep trade history with Canada means bioscience companies aren't starting from scratch when it comes to building trust across the border.

"They are very open to ideas, certainly from Minnesota-based companies," Shuster said. "There seems to be a friendship, for whatever reason. There's a tight alignment in culture."

Jansa agreed, recalling a recent visit to the Twin Cities by a research collaborator from Montreal:

"There's no intimidation by the cold weather, that's for sure."