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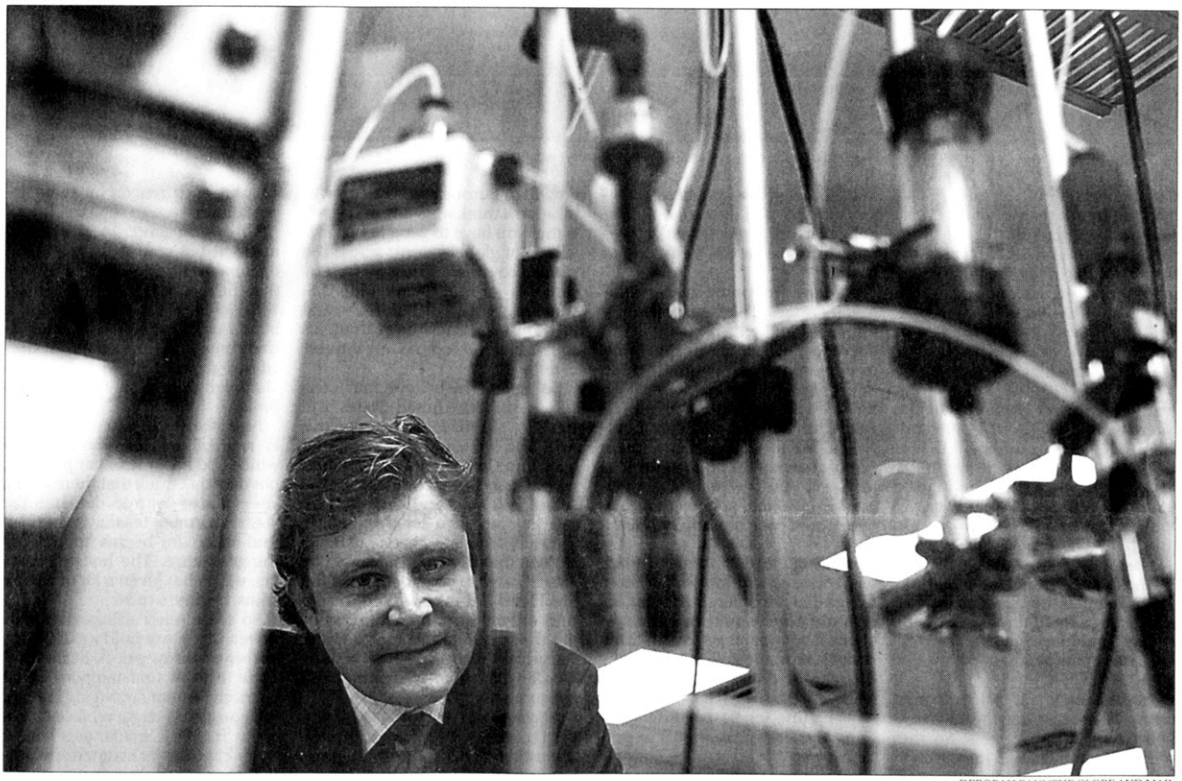
BIOTECHNOLOGY

Trillium back in limelight with Genentech deal

Firm's autoimmune disease compound has resulted in rich licensing pact with U.S. powerhouse, **LEONARD ZEHR** writes



DEBORAH BAIC/THE GLOBE AND MAIL

Trillium Therapeutics chief executive officer Niclas Stiernholm: 'We put a rich price tag on the business and negotiated from there.'

In the 1990s, the world was beating a path to Transplantation Technologies Inc. as it readied a historic "xenotransplant" between species lines: organs from genetically modified pigs to humans. Television crews were filming the company's research farm near London, Ont., and the safety and ethics of the surgery were being hotly debated.

While the experimental procedure failed to materialize and the company's star has largely flamed out, successor **Trillium Therapeutics Inc.** is now attracting a similar amount of international attention.

About two weeks ago, Trillium inked one of the country's richest licensing deals for an early-stage research and development company, teaming up with U.S.-based biotechnology powerhouse **Genentech Inc.** to develop one of Trillium's flagship compounds to treat autoimmune diseases, such as rheumatoid arthritis and multiple sclerosis, two ailments with billion-dollar markets.

"We had two very good offers and another one that was fair, but we weren't looking for fair," said Trillium chief executive officer Niclas Stiernholm, who joined the Toronto-based company two years ago after a stint as chief scientific officer of cancer vaccine developer YM BioSciences Inc. of Mississauga.

"We put a rich price tag on the business and negotiated from there."

Mr. Stiernholm recalls that Trillium was approached by several companies "when we weren't even sure we wanted to partner our product.

But after we decided to proceed, I made about eight calls to let other companies know."

Trillium heard back from six companies, and Mr. Stiernholm made presentations to all before receiving serious offers from three of them, which took nearly a year to negotiate before the deal was struck with Genentech.

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The agreement prevents Mr. Stiernholm from discussing the specific compound that Genentech hopes to develop into a new drug as well as how much the alliance is worth to Trillium, which was resuscitated in 2002, with a $7.5-million injection from VenGrowth Capital Partners Inc. and Canadian Medical Discoveries Funds.

But industry sources suggest the accord rivals a $157-million (U.S.) alliance between Xenon Pharmaceuticals Inc. of Vancouver and Swiss giant Novartis Pharma AG in September to develop Xenon's SCD1 protein as a treatment for obesity and other metabolic disorders.

These same sources also figure that Genentech has licensed Trillium's CD200 "fusion protein," which involves fusing a certain gene to a specific portion of an antibody to create a new drug. They reason that the protein is Trillium's lead compound and Genentech is already conducting R&D on these types of proteins.

Mr. Stiernholm explains that in autoimmune diseases such as multiple sclerosis and rheumatoid arthritis, animal testing has shown that by increasing the amount of CD200 in the body, the over-activity of certain immune system cells that cause attacks of inflammation can be controlled.

"We're not treating the symptoms of disease, but the cause," Mr. Stiernholm notes.

So what makes this type of preclinical animal data so valuable to a company such as Genentech?

"We have a variety of animal models all pointing in the same [autoimmune] direction," he said. "The CD200 protein already exists in the body so there are no safety concerns. And large pharmaceutical companies need to fill their drug pipeline so they're looking at research at a much earlier stage."

Trillium and Genentech, which is based in South San Francisco will complete another year or two of animal testing of the compound, and then Genentech will carry the ball in human studies.

At the beginning of 2004, Trillium secured a second round of venture capital of $6-million (Canadian), boosting its annual R&D budget to about $3.5-million, compared with $500,000 two years ago.

And now with payments from Genentech, Mr. Stiernholm said Trillium will accelerate and broaden its internal research, including an antibody version of CD200 as a possible anti-cancer drug, and technology it licensed in June from the University of Montreal and St. Justine Hospital.

While the Montreal technology to treat inflammatory bowel disease, another autoimmune disorder, still requires another 18 months of preclinical research, "it looks very promising . . . and we want to take this into the clinic [for human testing] ourselves," he said.

To reach that goal, the company plans to recruit a vice-president of development in 2005 to oversee its own human trials and regulatory filings.

"We're actively evaluating four or five projects and plan to [license] one next year in the immunology field," Mr. Stiernholm said.

Longer term, Trillium's goal is to expand its product pipeline and go public, either through its own initial offering or as part of a merger with an existing public company, he added.