



# THIS IS BIOTECH

## BEYOND MOOSE AND MOUNTAINS: BUILDING CANADA'S BIO-BASED ECONOMY.



### Life Saving Science Adds Muscle to HIV treatments

**Theratechnologies Inc., Montréal, Québec**

Science has come a long way in improving and extending the lives of patients with human immunodeficiency virus (HIV). Antiretroviral drugs have proven to keep at bay the effects of HIV to a great extent, but for every two steps forward there appears to be a half step back in the form of significant side effects.

One of these reverse steps is a condition called lipodystrophy, which causes excess abdominal fat, while arm and leg muscles waste away. The effects of lipodystrophy are severe enough that some patients are less willing to take the life-saving antiretroviral medications because of the fat distribution problem, which also puts them at greater risk of developing type-2 diabetes, heart attacks and full-blown AIDS.

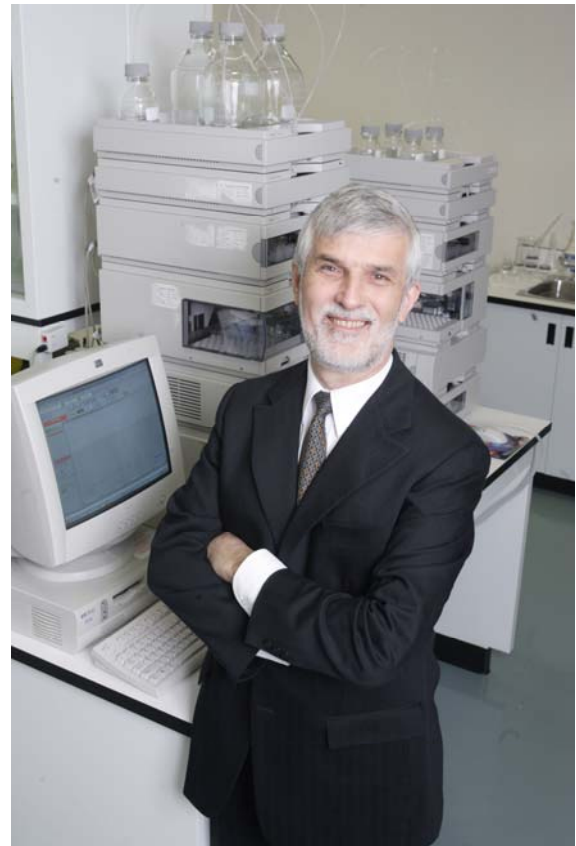
Recent estimates indicate that among the 2 million HIV-positive patients (both diagnosed and undiagnosed) in North America and Europe, approximately 285,000 suffer from HIV-associated lipodystrophy – and the number of patients afflicted is expected to grow.

But a Montreal-based biotechnology company, Theratechnologies Inc., has developed a drug called tesamorelin that was shown in clinical trials to decrease excess abdominal fat while promoting muscle mass in HIV patients. Tesamorelin works by increasing the body's own level of growth hormone, a hormone that is involved in both fat burning and muscle building.

Theratechnologies is just one of a handful of Canadian companies that has made a new drug application to the US FDA in the last 20 years. If and when approved, tesamorelin will be the first product approved by the FDA to treat this condition.

In the US, Theratechnologies has partnered with EMD Serono, a highly experienced company in the field, to commercialize and launch tesamorelin.

"This partnership is incredibly positive for us," says Yves Rosconi, president and CEO of Theratechnologies Inc. "It was seen as a strong validation of the interest in our compound by a global pharmaceutical company. The terms also reflect the importance of the drug to EMD Serono, which could give Theratechnologies a total of \$215 million USD, with typical Phase III royalties on sales. This gives us the ability to operate during this difficult economic time all while using our partner's deep-rooted expertise in the growth hormone area."



Theratechnologies was able to raise \$30M in February 2008 and combined with the upfront payment by EMD Serono, Theratechnologies finds itself in a solid financial position, which is rare today for a small Canadian Biotech company given the existing markets.

But what may ultimately prove to be another interesting application for the made-in-Canada tesamorelin is that the drug is currently undergoing testing for growth hormone deficiency in abdominally obese patients. With up to one-third of abdominally obese patients having low-to-deficient growth hormone concentrations, the ability to correct their growth hormone levels could help them reduce their excess abdominal fat. This independent study is being led by Dr. Steven Grinspoon Professor of Medicine, Director of the Program in Nutritional Metabolism and Clinical Director of the Neuroendocrine Clinical Center, Massachusetts General Hospital and Harvard Medical School and has been sponsored by the National Institutes of Health in the US.

Is tesamorelin a part of the Holy Grail in abdominal fat reduction - a condition long known associated with increased rates of heart attacks? No one is saying, but in the parlance of Canadians, tesamorelin shows pretty good promise, eh.