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## **Canadian biotech faces time of reckoning: report finds Global financial crisis makes existing business model unsustainable**

**Peter Winter, Editor**

Toronto – The new Ernst & Young Beyond borders: Global biotechnology report 2009 has just been released. Like their 2008 publication, The Global report again sounds warning bells about the struggling biotech sector in Canada. “The meltdown of the global economy has hit the biotech sector in Canada particularly hard,” Rod Budd, Ernst & Young’s Canadian biotech industry leader said in a telephone interview with Canadian Biotech News. “For the Canadian industry, this is now a time of reckoning. Without new approaches and funding sources, the next few years could cripple the biotech industry in Canada.

“The numbers are extremely ugly,” Budd said. “More than half of the Canadian public companies still standing have less than a year’s worth of cash left. The industry must therefore tackle the challenges head-on and evolve the biotech business model to survive in any meaningful way.”

The report chalks up the industry’s struggles to the economic crisis. Public markets have been firmly closed since mid-2007, while follow-on offerings fell to the lowest level in more than a decade. Venture capital, which had rebounded in 2007, fell substantially in 2008, especially for new start-ups and early-stage corporations. This funding crisis is straining companies and their business strategies, leading to a significant decline in the number of firms.

The report found that 57 percent of companies had less than a year’s worth of cash as of 31 December 2008, while 76 percent had less than two years’ worth. Reflecting this reality, 43 of the 72 public companies had full going-concern disclosures in their 2008 financial statements, indicating that management believes they have less than a year’s worth of cash. In the past, most companies in this situation were able to raise funds to continue, but

now this is more difficult since the industry has an unprecedented number of companies with little cash, very low market values and a lack of new buyers. “Market capitalization declined 61%, from US\$10.8 billion in 2007 to US\$4.2 billion in 2008,” Budd said. “That’s at least partially driven by four significant public-company acquisitions — Arius, Aspreva, Axcana and Draxis — by foreign firms. But the 72 public companies in existence at the end of 2008 still saw their total market value shrink by 47 percent.”

The lack of initial public offerings (IPOs) in the last two years was a bitter pill to swallow – made worse by a striking decline in follow-on public offerings of common shares, which declined from US\$398 million in 2007 to US\$80 million in 2008. Total funding for the Canadian industry decreased from US\$1.060 billion to US\$478 million.

“Capital has dried up, and that’s threatening the very existence of two-thirds of the Canadian public companies. About one third of public companies with approved products are generating revenue. That provides a basis for the future of the industry. Unless funding is found, Canada will be a much smaller player in the global economy,” Budd added. Data from Statistics Canada show that, while the federal government spent US\$920 million on biotechnology scientific activities in the year ending 31 March 2008, only US\$15 million of that total is related to business enterprises. And while this investment is probably at least matched by provincial contributions, the vast majority of those funds are for pure research. These expenditures may advance science and contribute to many new and innovative biotechnology products, but without robust funding and a strong domestic industry, these inventions will be commercialized by foreign companies with little economic benefit to the Canadian economy.

One mechanism the government uses to boost biotech is the scientific and experimental development tax credits (SR&ED) program, which returns cash to private companies based on R&D spending, and is augmented by similar programs in many provinces. While these programs greatly

benefit private firms, they may be less useful to many companies in the current environment.

As venture-capital firms cut back on early-stage financing, many companies lack the funds to invest in R&D and avail themselves of the credits. Further, these credits are of little value to public companies since they can only be offset against taxable income, which few public Canadian biotechnology companies have.

For public companies, making a portion of the SR&ED tax credits and unused SR&ED expenditures refundable would provide immediate relief.

Other Canadian highlights from Beyond borders: Global biotechnology report 2009

- The number of Canadian companies dropped 11%, from 404 in 2007 to 358 in 2008.

- Quebec-based companies attracted more total investment than any other province, with US\$199 million raised.

- Ontario raised US\$138 million; British Columbia raised US\$90 million.

- The two largest deals were among the largest ever seen in the Canadian biotech industry. Both were announced in 2007 and completed in early 2008.

- Canadian firms had only limited success bringing new therapeutic products to market.

- Six public companies essentially closed operations in 2008, and 20 of the 72 remaining companies have announced that they are actively pursuing strategic alternatives such as reorganization or sales. If these trends continue, the Canadian biotech industry could emerge from the financial crisis much smaller and essentially restricted to just three major clusters located in Montreal, Toronto and Vancouver.

## Government pledge will boost biomedical research in Ontario

By Marie Daghlian, Assistant Editor

The cuts in research funding in Canada's budget, handed down in January 2009, lost a little of their sting this week with the announcement that Ontario is launching a new \$100 million (US\$85M) fund to attract and retain top genomics researchers in the province. The Global Leadership Round in Genomics and Life Sciences is designed to support globally significant, collaborative research projects in Ontario, and create high-skilled jobs in research and technology. Focused on genomics and gene-related research, the new fund will aim to accelerate new knowledge that could lead to cures, better treatment and prevention for diseases like cancer, diabetes and heart disease. It will also support innovation in agriculture, environmental protection and clean technologies. It will be open to public universities and colleges, hospital-based research institutions, and other nonprofit research institutions, which will compete for grants.

Canada's biotech industry had already been struggling for several years but the dramatic events in the financial markets in 2008 and early 2009 have severely hampered research and development activities. Canada's budget this year had little to help protect \$1.7 billion of annual biotech research and development spending and to support the sector during the economic downturn that will likely see many companies close their doors for lack of access to capital.

"At a time when economic challenges are tempting some governments to scale back on their innovation spending, Ontario is more committed than ever to its vision of global leadership through collaboration. The McGuinty government is committed to growing an innovation economy that supports the groundbreaking work of our leading scientists and

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*Pictured at the press conference (left to right): Dr. Janet Rossant – Hospital for Sick Children, Minister John Wilkinson, Dr. Robert Roberts -University of Ottawa Heart Institute (at podium), Dr. Mick Bhatia, McMaster Stem Cell and Cancer Research Institute, Dr. Andras Nagy – Samuel Lunenfeld Research Institute, Mount Sinai Hospital, and Dr. Molly Shoichet – University of Toronto*

their teams. New discoveries and breakthroughs will continue to be made - and we want those people, those ideas, and those jobs right here in Ontario," said Minister of Research and Innovation John Wilkinson.

Scientists across the country have also been concerned that funding cuts to the agencies that control research funds to universities will lead to an exodus of top Canadian talent. Many could be lured to the United States where U.S. President Barack Obama has committed more than \$15 billion for scientific research. At the press conference held on May 4 at the Queen's Park media gallery where Mr. Wilkinson made the announcement, over a dozen top Ontario scientists applauded the funding, noting that it was critical to keeping Ontario on the cutting edge of biomedical research.

"I am heartened by the government's vision of global leadership and commitment to funding world-class, peer-reviewed research. It is a clear signal of the priorities of the Ontario government, a demonstration of leadership, and a vote of confidence in us all," said Dr. Andras Nagy, Senior Investigator, Samuel Lunenfeld Research Institute.

Funding priority will be given to projects that are "collaborative, transformational and internationally significant" in stem cell, protein, and genomics research in the areas of human health, agriculture and the environment. The Global Leadership Round in Genomics and Life Sciences funds will be used to staff and operate labs and are likely to be awarded by the end of 2009. Applicants receiving awards will be required to contribute matching funds from both their institutions and private-sector partners.

"We are not going to cede our leadership position,"

Wilkinson told reporters. "This is no time to be taking our foot off the gas when it comes to Ontario's commitment to funding science. The new economy is fuelled by new ideas. New ideas create new jobs." "This investment underscores the government's recognition that Ontario must continue to invest in its strong life sciences cluster," said Dr. John Evans, Chair, MaRS Discovery District. "Now more than ever, innovative research and development is a key driver, reshaping the knowledge economy and creating prosperity for all Ontarians."

Ontario is the largest hub of biomedical activity in Canada and the fourth largest biomedical research centre in North America. The province is also leading and partnering on many global research projects including the International Cancer Genome Consortium, the International Consortium on Antivirals, the International Barcode of Life, and the Structural Genomics Consortium. This \$100 million fund will bring Ontario's commitment to funding science since 2003 to \$1.4 billion.

## **DiagnoCure receives US\$5 million from Gen-Probe**

Quebec City - Gen-Probe has completed its subscription of 4.9 millions shares of newly issued DiagnoCure convertible preferred shares for US\$5.0 million, representing a premium of 19.8% over the average market price of the common shares of DiagnoCure during the 20 trading days prior to April 28, 2009. These convertible preferred shares are non-voting, and may be exchanged for common share on a one-for-one basis. DiagnoCure has the option to redeem the preferred shares or to require their conversion into common shares in certain circumstances. As part of its investment in

DiagnoCure, Gen-Probe will receive a liquidation preference in certain cases and a security interest in some intellectual property.

## **Cangene signs licensing agreement with Maxygen**

Toronto and Winnipeg - Cangene Corporation has submitted a bid to develop a therapeutic for treating acute radiation syndrome (ARS) under a request for proposal (RFP) issued March 13, 2009 by the Biomedical Advanced Research and Development Authority (BARDA) within the US Department of Health and Human Services. Cangene has concurrently signed an agreement with Maxygen, Inc. giving them an exclusive option to acquire an exclusive licence to Maxygen's protein therapeutic called MAXY-G34 for use in treating ARS. Cangene's submission under the RFP specifies its intention to develop MAXY-G34 for the ARS indication. MAXY-G34 is a long-acting version of the white-blood-cell-stimulating protein called granulocyte colony-stimulating factor or G-CSF, which has dosing characteristics more suited to the ARS indication than a protein called granulocyte-macrophage colony-stimulating factor or GM-CSF that Cangene had also considered developing for this indication.

Under the agreement with Maxygen, Cangene has paid an up-front fee of US\$0.5 million for the option to obtain an exclusive licence for the product for the ARS indication. If awarded a development contract under the RFP that meets certain Cangene criteria, Cangene would exercise its option on MAXY-G34 and pay Maxygen licence fees.

"We are pleased to be able to couple our submission under the RFP with this agreement with Maxygen. We believe that MAXY-G34's characteristics and its level of development have allowed us to submit an effective proposal under this RFP," said Dr. John Langstaff, Cangene's president and CEO.

MAXY-G34 is a next-generation, long-acting granulocyte colony-stimulating factor (G-CSF) that Maxygen has been developing to treat chemotherapy-induced neutropenia (depletion of neutrophils). G-CSF is a natural protein that stimulates the body's bone marrow to produce neutrophils, a specific type of white blood cell, which play an important role in the defence against

bacterial infections. Maxygen uses proprietary technology to couple G-CSF with a chemical called polyethylene glycol (PEG) in order to prolong the duration of its therapeutic activity. Maxygen recently completed a Phase IIa trial of MAXY-G34 in breast cancer patients. Maxygen is seeking other partners to develop and commercialize the product for chemotherapy-induced neutropenia. Maxygen is a biopharmaceutical company focused on developing improved versions of protein drugs. Maxygen has a MAXY-G34 program, designed to be an improved long-acting G-CSF for the treatment of neutropenia. Maxygen uses its proprietary DNA shuffling technology and extensive protein modification expertise to pursue the creation of biosuperior proteins.

## **Response Biomedical aims to raise \$11M in a public offering**

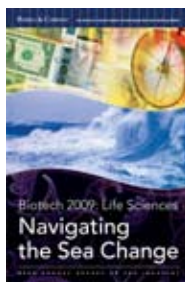
Vancouver - Response Biomedical Corporation has entered into an underwriting agreement with Haywood Securities Inc. in connection with its previously announced marketed public offering of units. The company will issue 73,333,333 units at \$0.15 per unit for gross aggregate proceeds of \$11 million. Each unit will consist of one common share and one-half of one common share purchase warrant that will entitle the holder to purchase one additional common share at \$0.25 for a period of 24 months from the closing date of the offering. Haywood has been granted an over-allotment option to purchase an additional 11 million units (representing 15% of the total number of units offered) at the offering price scheduled to close on or about May 21.

Calgary - **The Westaim Corporation** will hold a webcast at 10:00 a.m. ET on Tuesday, May 12, 2009 to broadcast the company's Annual Meeting of Shareholders. To listen to go to [www.westaim.com](http://www.westaim.com).

### **BIO 2009**

**Next week we will be bringing you the sights and sounds from BIO 2009 and reporting on Canada's participation in this year's Atlanta event**

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