

LUNENFELD: Always Open for Business



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The Samuel Lunenfeld Research Institute at Mount Sinai Hospital is a \$90 million per annum research facility home to over 30 of Canada's top biomedical and clinical researchers. Since its inception in 1985, the Lunenfeld has fostered opportunities for commercialization and

business development through its Office of Technology Transfer and Industry Liaison. Over this time, the OTTIL has evolved in response to the many changes in the scientific and business environment. As the OTTIL's name suggests, we take a holistic approach to working with industry to advance

our mutual interests in promoting wellness and the improved diagnosis, prognosis and treatment of disease. Our activities encompass spin-offs, licensing and close interaction with pharma and biotech spanning sponsored research, interactive large-scale collaborations and research services including clinical trials. OTTIL staff also work closely with MaRS Innovation, a federally funded Centre of Excellence in Commercialization of Research that helps integrate and add value to the research commercialization efforts of its member institutions.

Along with the traditional activities of technology transfer, we realise we have substantial assets and expertise that are not used 24/7. These include sophisticated technologies such as FACS, mass spectrometry, high throughput robotic screening as well as integrated mouse modelling and phenotyping resources at the Toronto Centre for Phenogenomics, a world-class mouse research facility jointly operated by Mount

Sinai Hospital and the Hospital for Sick Children. Moreover, Mount Sinai has a successful independent business entity, Mount Sinai Services (MSS) conducting contract research services for industry clients – effectively an in-house CRO. By partnering with MSS, SLRI is able to effectively leverage the spare capacity of these capabilities with proceeds used to support research operations. Moreover, collaboration between MSS and our OTTIL helps advance our own commercialization projects.

A decade ago, research institutions were encouraged to spin out their technologies into self-supporting, independent companies. While some succeeded, many were underfunded, weighed down by heavy overhead costs frequently leading to failure. It is essential that we pursue effective strategies to grow sustainable companies. We have taken a different approach by nurturing virtual companies and, at an appropriate stage, formally

incorporated companies within the Institute, reducing costs and also allowing for greater proximity between the foundation science and product development projects. Costs are covered by the company either in cash or equity but the operational overhead is a fraction of what would be needed in an off-site facility as Institute resources such as HR, payroll, etc. can be tapped into. The incubation period allows the company to mature its products to an appropriate validation and valuation point before securing major investment and graduating as an independent entity in its own premises.

Perhaps the biggest challenge for commercialization remains the dearth of early stage funding. Proof of Principle funds can help mature research findings to a point sufficient for private sector investment, but funding is limited with no certainty of follow-on funding if milestones are achieved thus requiring multiple rounds of com-

petitive funding. Time frames for PoP funds frequently don't correspond to technology development/validation time frames particularly in the biomedical field. Developing means to provide timely and adequate support for moving promising products and services forward would pay dividends but remains a significant challenge.

In addition to our obligation and desire to translate scientific knowledge into improved patient health through commercialization vehicles, grant-based research funding has flat-lined over the past 5 years with little sign of increasing in the near future. Hence, other sources of income become more important in supporting research activities. We expect our innovative approaches utilizing our expertise, discoveries and resources through initiatives such as MSS and in-house companies to grow, supporting our own programs and bridging the gulf between academic research and commercial activities.

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