

New research finds timing is the key to success for science startups

February 8 2017

Timing is essential when it comes to achieving commercial success for science-based companies according to a new research paper by faculty at SFU's Beedie School of Business. The study, published in leading journal *Nature Nanotechnology* is part of a broader multi-year project on the global nanobiotechnology industry led by Professor Elicia Maine and Dr. Jon Thomas.

According to Maine and Thomas, when a scientific breakthrough is made, the difference between success and failure in commercializing the new technology for the mass market may be the timing of certain strategic actions taken by the inventor. These strategic actions include the publication of findings, filing for patents, forming a company, and forming R&D alliances.

"Canada has an exemplary record in scientific research, but lags behind when it comes to creating long-term value from science-based ventures," says Maine. "Our research looks at ways in which we can help ventures get these innovations out of the laboratory and into the commercial market by improving their strategic timing."

Companies based on cutting-edge science face significant barriers to commercialization, due to uncertainty and long development times, which can be up to 10 or 15 years. This can lead to challenges in attracting funding at critical points in the company's development, since investors tend to require the delivery of returns in a shorter timeframe of three to seven years.

To understand how companies can overcome these challenges, Maine and Thomas conducted detailed research into nanobiotechnology drug delivery ventures. All of the North American ventures of this type who reached an Initial Public Offering (IPO) had employed elements of strategic timing. Maine and Thomas demonstrated strategic timing through a case study of BIND Therapeutics, an M.I.T. spinoff venture founded by Professor Robert Langer that successfully raised over US\$180m and reached an IPO. Maine and Thomas argue that, to stand the best chance of successfully commercializing inventions, scientist-entrepreneurs should pursue broad patents on their technologies while still in the university laboratory, and delay forming a company until they are closer to commercial viability, to better fit with investors' timelines.

These findings could provide useful insights for science innovation in Canada.

"Professor Robert Langer and M.I.T. are exemplars of science and technology commercialization, particularly in their emphasis on long term societal impact," says Thomas. "Building on the results of our study, Canadian scientist-entrepreneurs aiming to launch science-based spin-offs can use strategic timing to better position their ventures for success and social impact."

The research also highlights the role of university technology transfer policy and government innovation policy in supporting entrepreneurial researchers.

"Tech transfer policies in Canadian universities are not conducive to scientific commercialization," says Maine. "The policies have short-term objectives, which keeps the pie small. We should provide a structure that supports greater value creation over the long term."

More information: Elicia Maine et al. Raising financing through

strategic timing, *Nature Nanotechnology* (2017). [DOI: 10.1038/nnano.2017.1](https://doi.org/10.1038/nnano.2017.1)

Provided by Simon Fraser University

Citation: New research finds timing is the key to success for science startups (2017, February 8) retrieved 24 April 2024 from <https://phys.org/news/2017-02-key-success-science-startups.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.