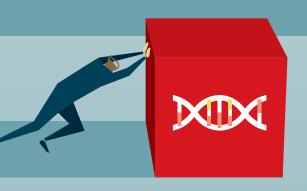


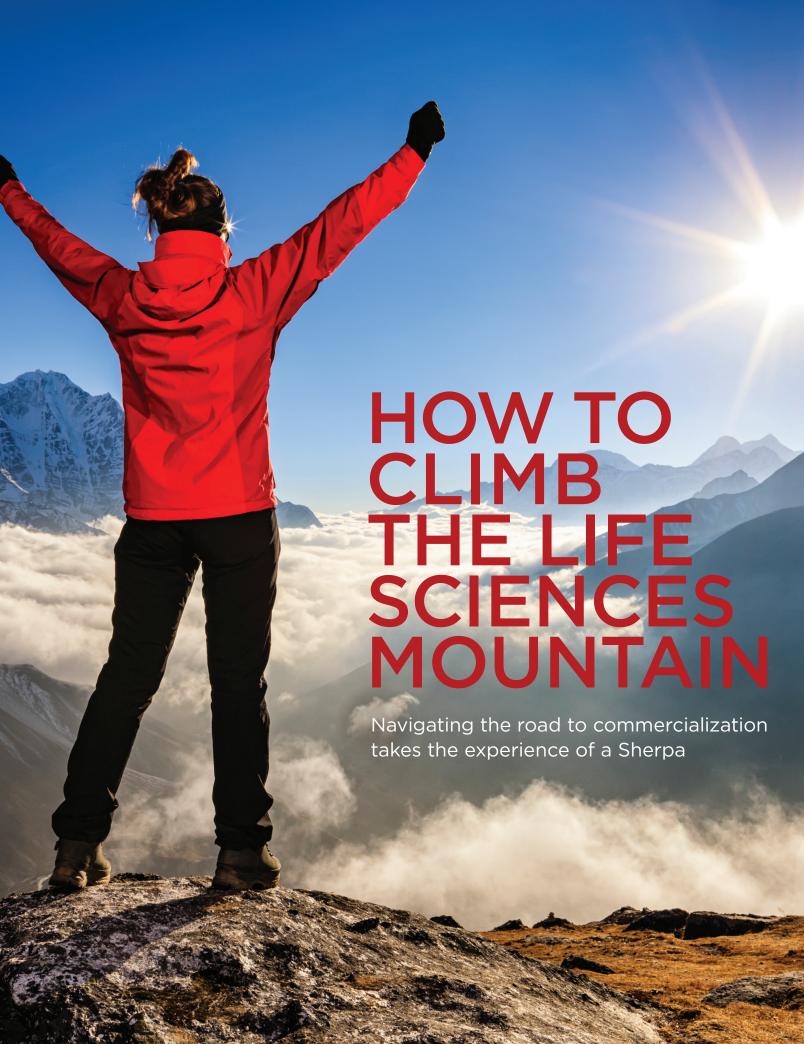
## CANADA'S BIOTECH ECOSYSTEM: A STRENGTH TO BUILD UPON

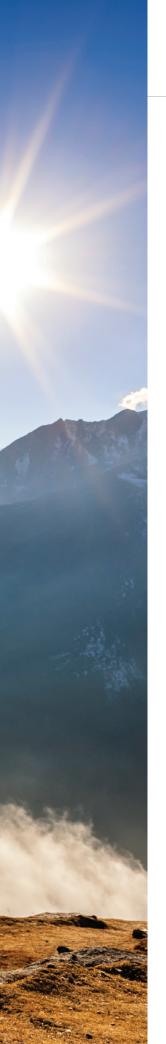
L'ÉCOSYSTÈME CANADIEN DES BIOTECHS : UN ATOUT D'AVENIR











## The challenges facing the life sciences sector are well documented,

even if there is some debate about which ones are most urgent. From cost and pricing pressures to regulatory compliance, the barriers to success can be significant.

As a result, the mantra "fail it fast" has become a truism. The journey to commercialization is long and expensive; if something isn't going to succeed, it's better to know early so that scientists and investors can move on to the next project.

But what about innovations that fail because the teams behind them were missing critical knowledge? How many promising products would live to see the market if their journey was guided by experts who had travelled the route before?

"In the life sciences industry, most projects fail not because they have an inherent flaw, but because of an under-investment in knowledge," says Ali Ardakani, managing director at Novateur, a company with a new approach to harnessing industry expertise. He compares the commercialization journey to climbing a mountain.

"You can't climb Mount Everest alone," he says. "The difference between success and failure is the expertise and experience that the Sherpas bring because they know the route."

But in an industry where soaring R&D costs and access to capital are top of mind, digging deep for experience isn't always on the radar, even when it ought to be.

Parimal Nathwani is the vice president of life sciences at MaRS Innovation—the largest academic innovation hub in Canada. He works with 15 leading academic institutions in Toronto to establish start-up companies, and finds that access to talent is a major issue.

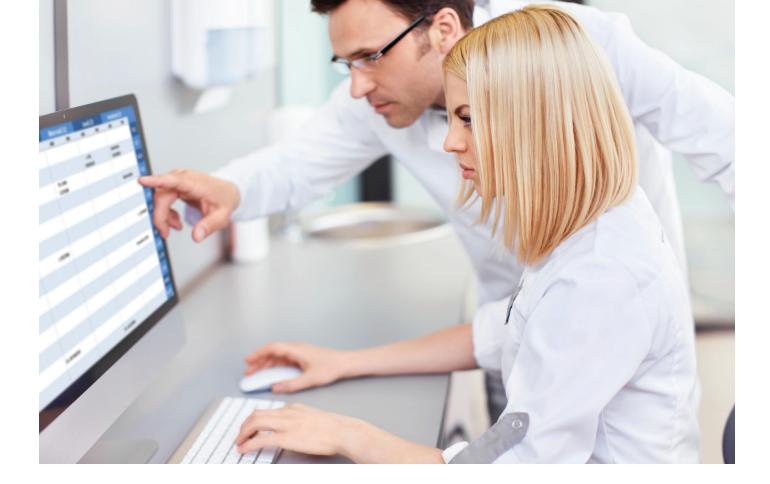
"Getting companies started and off the ground requires a special skill set—people who have 'been there, done that," Nathwani says. "Start-ups can't recruit that calibre of talent, or find the time to recruit them."

For start-ups and in-house development teams, that skill set includes the full spectrum of talent from technical experts to scientific managers to C-suite executives. The narrow specializations in life sciences make this challenging.

Natalie Dakers is the president and CEO of Accel-Rx, a national health sciences accelerator headquartered in Vancouver that supports early and seed-stage companies. She notes that the recruitment challenge is especially acute in Canada because the life science ecosystem is diverse, but not deep. And while the industry does recruit from abroad to support growth, it's often not an easy sell.

"We have an incredible diversity of types of companies in Canada, but we don't have clusters like they do in the United States or United Kingdom," she says. "When you're recruiting from abroad, people want to know that there are other opportunities."

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"For any particular drug, device, target area, or molecule, there is probably only a handful of people in the world with the relevant deep expertise. But those are the people we need to get."

The landscape is familiar to Ardakani, whose career has included roles as a project manager and director, among others. But after seeing first-hand how quickly a team of specialized experts can rally to a solution, he decided to try a new approach to recruitment.

Under the Novateur umbrella, he has developed a network of more than 100 core experts from around the world that he draws on to assemble virtual ad hoc teams. His approach has been described as a "specials ops" team that comes in with the right expertise to address a particular issue. Novateur's network has experience in all stages of the development cycle for a broad range of technologies and indications. His clients have included large pharmaceutical companies, small biotech start-ups, and investment firms.

"For any particular drug, device, target area, or molecule, there is probably only a handful of people in the world with the relevant deep expertise," Ardakani says. "But those are the people we need to get—they've been there before, made mistakes, and learned from them."

The advantage of Novateur's model, says MaRS Innovations' Nathwani, is the ability to quickly access people with significant experience, which is more efficient in terms of time and capital.

"We spend a lot of time identifying these people, and it's difficult to capture their attention,"

Nathwani says. "Being able to access a deep domain of expertise brings credibility to the companies we work with, and fits the flex that's needed in a cash-constrained industry."

While his clients are sold on his approach, Ardakani says he still spends time trying to convince others that a virtual, ad hoc team is the right solution.

"People often tell me, 'but I want someone here, in my office," he says. "But it's really the advice that they want. That advice could save millions of dollars, or could save their product."

Shermaine Tilley, managing partner at CTI Life Sciences Fund, has witnessed the difference that targeted expertise can make.

"Having seen pitch decks of young companies before and after they've worked with Novateur, I can tell you that there's been a transformative strategic focus," she says. That focus can mean the difference between success and failure.

As other challenges in the life sciences sector emerge—an aging population with complex health needs, and a drive toward more patient-centred care—Ardakani says the business is challenging enough without taking additional risks.

"Just like climbing Everest, not having experience can be fatal," he says. "We can help people climb the mountain, and conquer the peak." •