



Opinion

Ingenuity in Canada's life-sciences sector key piece in responding to global COVID-19 fight

Canadian researchers, in a wide swath of scientific disciplines, are working together in unique ways to identify cutting-edge therapies, treatment support tools, and vaccines.

BY GORDON MCCAULEY

While celebrating the heroism of those on the front lines fighting this pandemic, we have reached the point where we can consider life after COVID-19. Or perhaps we should say life with COVID-19. It will be with us for a while, and we will become accustomed to serological testing, immunity passports, and other tools that will be necessary to reduce some physical distancing.

Canada has a lot riding on our country and economy emerging from this crisis with strength and durability. And given how different the "next normal" will be from anything we have known before, we had better spend considerable energy thinking through the long-term changes that will make it sustainable.

There has already been much discussion about the perverse



Prime Minister Justin Trudeau has pledged to spend \$850-million in the global fight against the pandemic. Canada needs to find a measured and strategic approach to addressing the overreach of globalization, while not sacrificing its benefits. *The Hill Times* photograph by Andrew Meade

impact of globalization amplifying the spread and misery of COVID-19. Indeed, Roger Martin argues forcefully that while globalization made companies efficient, it also made countries weak. Be that as it may, a populist pendulum swing to closed borders, and a chauvinistic defence of everything domestic, is a weak answer. Rather, Canada needs to find a measured and strategic approach to addressing the overreach of globalization, while not sacrificing its benefits.

The keystone principle in this planning for our future is clear: while security of domestic supply is important, security of domestic knowledge is critical.

Researchers and businesspeople alike are collaborating across borders, disciplines, and sectors in this crisis more than ever before. In this effort, Canadian researchers, in a wide swath of scientific disciplines, are working together in unique ways to identify

cutting-edge therapies, treatment support tools, and vaccines.

This Canadian research strength is an unappreciated innovative element of our economy. Our ingenuity in life sciences is answering the global call to solve COVID-19 in a breathtaking manner. At adMare, we've already looked at some 20 vaccine programs, more than 30 therapeutic opportunities, almost 20 in biomanufacturing, 40 diagnostic approaches, and another 40 tools or support programs that are now underway in Canada.

The numbers balloon if basic research efforts are included. The reason we have so quickly come to the forefront in developing solutions is that we have built extraordinary knowledge infrastructure at universities, teaching hospitals, research institutes, and within Canada's life sciences industry. That industry is driving key Canadian biotechnology hubs with billions of risk capital invested,

scaling compelling companies with a long-term perspective here in Canada, and thousands of high-skill, high-knowledge Canadians earning big paycheques. We have tremendous domestic capacity.

Industry, academia, and government have come together productively to identify these sectoral strengths and support them with effective public policy. Certainly, a number of these sectors will be correctly identified as strategically important to protect Canadians. That strategic importance can serve to develop new knowledge-intensive companies here.

As one of the world's most prolific trading nations, however, it is in our interest to market these innovations to the world. That will require more policy ingenuity as that globalization pendulum swings.

In a global industry where Canada accounts for three per cent of the market, we will only be able to afford those innovations domestically if Canada can sell them to the world. That is why domestic security of knowledge is so critical. Exploiting our knowledge, and building these industries for the benefit of Canadians' health and economy, requires public policy that continues to sponsor the translation of research, the development of knowledge-driven talent, and the attraction of global capital to fuel it. In fact, we should redouble our efforts and avoid the temptation to narrow them for domestic consumption.

We have laid the foundation of a globally competitive 21st-century industry. The pandemic has demonstrated with painful irony why it is so important. Public policy makers at all levels can bask in some of the credit for the strength of this foundation. In the midst of this crisis, they have been collaborating with industry proactively and with exciting velocity. However, it is imperative that we don't turn inward, in the name of domestic security and self-sufficiency, and lose the momentum and critical mass that are making Canada a globally competitive exporter of intellectual property and products in the burgeoning bio economy.

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