

Nano Science, Technology and Industry Scoreboard

## Nicoya Promised Additional Funding from Federal Government to Develop Covid-19 Test

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Kitchener-Waterloo-based healthtech startup Nicoya has announced it is set to receive more financial support and advisory services from the Government of Canada to continue the research and development of its rapid, saliva-based COVID-19 antigen test, Atlas.

The new funding, which Nicoya claimed could reach up to \$1,998,592, marks the second phase of support for the startup from the National Research Council of <u>Canada</u> Industrial Research Assistance Program (NRC IRAP). To date, Nicoya has received nearly \$300,000 in funding and advisory services to develop its Atlas solution from NRC IRAP. The funding comes as part of a joint challenge by the Public Health Agency of <u>Canada</u> through the Innovative Solutions <u>Canada</u> program.

Atlas is a low-cost, portable, single-use device that tests for active SARS-CoV-2 infection by collecting and analyzing saliva. The startup claims its smartphone-powered solution, which works in tandem with a mobile app, can be self-administered in less than 20 minutes. Nicoya said the additional support will allow it "to advance the development of Atlas" and start clinical trials.

"In a short period of time, our team was able to leverage years of experience to develop a completely novel method of viral detection that solves many of the issues with the current point-of-care tests," said Ryan Denomme, co-founder and CEO of Nicoya. "Combining ease-of-use and affordability while still maintaining the highest levels of performance makes Atlas a powerful tool to combat this and future pandemics."

Spun out of the <u>University of Waterloo</u> in 2012, Nicoya provides advanced analytical instruments for the biotech and pharmaceutical industries. The startup uses nanotechnology, microfluidics (the science of manipulating and controlling fluids), and artificial intelligence to develop products that help scientists better understand and develop treatments for diseases such as cancer, hepatitis, and Alzheimer's.

Given its platform-based nature, Nicoya called Atlas "well suited to adapt to the rapidly changing nature" of COVID-19, citing its affordability, sensitivity, and ease-of-use as factors it expects will enable Atlas to become "widely accessible on the global stage."

Through Atlas, Nicoya aims to make rapid testing "more accessible and easier deploy." The company claims that "unlike other point-of-care diagnostics," Atlas is able to provide "PCR-levels of performance without the need for complex lab equipment of highly trained technicians."

Polymerase chain reaction (PCR) is a laboratory technique that involves amplifying a small segment of DNA and producing millions of copies of it. PCR testing for COVID-19, which involves taking nasal swabs or throat swabs, is considered the "gold standard" by the <u>United</u> States Centers for Disease Control and Prevention.

According to Arjun Sudarsan, Nicoya's CTO, the startup's platform-based approach to diagnostic testing "will help prepare the world for viral outbreaks beyond SARS-CoV-2."

"As we saw over the last year, we were unprepared for a pandemic of this magnitude," said Sudarsan. "By adopting a portable test like Atlas, countries can ensure they have the capabilities needed to scale up diagnostic testing, while also providing individual users with accessible and effective testing."

Last January, Nicoya raised a \$10 million Series A round and launched its new Alto product, an automated laboratory instrument that measures the interactions between molecules in real-time without the use of labels.

Read the original article on BetaKit.