

Sona Nanotech is seeking U.S. FDA approval for its rapid COVID-19 saliva test

Much to my chagrin, it appears this damn COVID virus is refusing to let us be. I guess one positive take-away is that we are learning about the Greek alphabet. I can't say I was familiar with omicron prior to last Thursday, but all of a sudden it's the most talked about Greek letter in the world. Along those lines it would appear we aren't going to shed this virus anytime soon (pun intended), so we are going to have to adapt to it so we can get back to as normal a lifestyle as possible. In my opinion, an easy to administer, reliable rapid test could go a long way towards returning us to our normal day-to-day activities while still giving confidence to all those around us that they are in a safe environment. Obviously, it would have to be more convenient than the one where it seems like they are trying to swab brain tissue behind your eyes, because I know I certainly won't be signing up to do that every day or two. But a simple saliva swab in the mouth, and 15 minutes later you've got the green light to do whatever, seems like a reasonable solution.

There are a lot of companies out there that are pursuing this holy grail of a reliable rapid test, but the one I want to talk about today is developing a saliva-based rapid screening test, for Coronavirus, derived from a bunch of other interesting applications for their technology. The company is Sona Nanotech Inc. (CSE: SONA | OTCQB: SNANF), and they have developed multiple proprietary methods for the manufacture of various types of gold nanoparticles and are experienced in the development of rapid, lateral flow assay, in-vitro, diagnostic tests. The Company is also involved in research and development into other potential applications for its proprietary technologies.

What makes Sona (the Hindi word for gold) unique is that it has patented, **non-toxic**, metallic gold nanorods (GNRs) which are small particles whose surface plasmon resonance (SPR) frequencies can be altered by modifying their length and width, giving them properties useful in a host of applications, including diagnostics, optical biomedical imaging, and photothermal therapies, to name a few. I recognize that's a lot of science stuff but the key term in the last sentence to focus on is non-toxic. One of the major barriers in the application of GNR based materials is the presence of cetrimonium bromide (CTAB), a cytotoxin. After years of hard work, Sona was able to perfect the process and develop the ability to synthesize large volumes of high-quality gold nanorods free of CTAB. This opened the door to using GNRs as a drug delivery vehicle and for photothermal therapy.

If you check out the Sona Nanotech website there is some pretty fascinating stuff, even if I don't understand a bunch of it. However, we'll focus on the investment thesis for today. It should be somewhat obvious that a rapid COVID test is what is of greatest importance right now. On November 8th the Company announced a U.S. partnership and preliminary evaluation results for its COVID-19 saliva test. Sona entered into a binding licensing agreement with U.S. FDA registered Arlington Scientific Inc. of Springville, Utah, to bring Sona's rapid saliva COVID-19 test to market. The market was pretty excited about this news as the stock popped 87% the day after the press release, and that was before anyone was aware of the COVID omicron variant. If an FDA Emergency Use Authorization is granted, Arlington will coordinate manufacturing and distribution of the test in the U.S. exclusively on a profit-sharing basis. In other words, Arlington will make it and market it, meaning almost zero cost for Sona to move the product forward (Sona is on the hook for providing key biological materials for testing). This is a very important deal for a company that currently has no

revenue and is pretty much focused on R&D.

There are plenty of other developments going on at Sona like a concussion test for mild traumatic brain injury that aims to detect a series of biomarkers enabling the screening for mild concussions, and a bovine tuberculosis test, which is being developed with a consortium of companies as part of a Canada/UK industrial research and development program. Both of which could be future sources of income for the Company but not likely on the scale of a rapid COVID test. Another interesting application of their technology is a possible advancement of radiation therapy in cancer cells by focusing on the treatment. Evidence suggests that GNRs could be more effective at killing tumors with less or no adverse reactions to healthy cells given that traditional methods of this type of treatment involve non-selective irradiation, damaging the normal tissue surrounding a tumor. Although maybe we'll save the discussion of these applications for another day.

For now, Sona could be in the right place at the right time. After some initial missteps, they have fine-tuned their rapid, saliva, COVID-19 test just in time for the next variant of concern to come along. With just over 65 million shares outstanding they have a market cap of roughly C\$28 million based on yesterday's close. A near-term catalyst could prove to be a better shot in the arm for Sona Nanotech than any vaccine.