

Sixth Wave Hits Key Achievement for a New & Innovative Rapid Detection System for COVID-19

Yesterday, Sixth Wave Innovations Inc. (CSE: SIXW | OTCQB: ATURF | FSE: AHUH) announced a key achievement in the development of its advanced technology for the rapid detection of the virus that causes COVID-19.

Using nanotechnology, Sixth Wave focuses on the extraction and detection of target substances at the molecular level using specialized molecularly imprinted polymers (MIPs).

The company creates a molecular imprint in the polymer for the target substance and then can detect its presence based on the specific size, shape, and/or chemistry of the target.

Announcement of Initial Imprinting

Sixth Wave made a breakthrough announcement yesterday that the research team successfully completed the first molecular imprint of the SARS-CoV-2, the virus that causes COVID-19, using the company's patent-pending process and technology called Accelerated Molecular Imprinted Polymers (AMIPs™).

Over the next few weeks, this imprint will now go through a series of tests at the University of Alberta to determine the accuracy of the virus detection. The imprint process will be modified until a precise process is determined that results in a polymer with an "exceptional accuracy" in identifying the virus.

Once the polymer has reached its efficacy targets, it can then form the basis of various virus detection products including

airborne detection tools, hand-held devices, and wearables.

One simple application is adding the polymer to a mask. The mask can then filter out any SARS-CoV-2 virus that tries to pass through the mask and can also change color if the user's exhale contains the virus. A fast, effective and easy way of detecting the COVID-19 virus.

Dr. Jonathan Gluckman, President and CEO of Sixth Wave, commented,

"With the completion of the initial imprint, we've demonstrated the process of making this polymer. More importantly, we now have an AMIPs prototype customized for SARS-CoV-2, which we can run through a battery of tests, optimizing its design with each successive imprint version. At the end of this process, we aim to have a Definitive Imprint with an extremely high affinity, or attraction, to the Virus, with clinically relevant detection levels and reliability."

Advantages of Sixth Wave's Technology

Currently, COVID-19 testing is expensive and often requires laboratory work, expensive equipment, well-trained technicians, and can take days to get accurate results. In addition, the tests use biological materials that are affected by climate conditions.

Sixth Wave's testing solution has many advantages over a lab-based test – it is simpler, faster, and does not require any skilled person to administer. If the polymer is implemented in a breathalyzer, simply breathe into the device and it will tell you if your breath contains the SARS-CoV-2 virus.

In addition, the polymer can be easily replicated at a low cost, it doesn't need to be stored at low temperatures, and the same process can be used to detect other viruses or diseases.

Technology Already Used in Gold and Cannabis Processing

Sixth Wave's technology has already been used in the gold mining industry. In gold extraction, Sixth Wave's product is called IXOS® and is a line of polymers formulated for the extraction of gold from cyanide leach solutions.

In September 2020, Sixth Wave announced that it signed a non-binding Letter of Intent for the trialing of Sixth Wave's IXOS® purification polymer at Rio2's (TSXV: RIO | OTC: RIOFF | FSE: 1SB) Fenix Gold Project in Chile.

In the cannabis extraction industry, Sixth Wave's Affinity™ system can lower the cost by streamlining the process of capturing and extracting cannabinoids (THC and CBD) while still yielding high purity distillates and isolates.

In April 2020, Sixth Wave signed a deal with Green Envy for the purchase of at least three Affinity™ extraction units. Green Envy is a cannabinoid extraction company specializing in the production of high-quality concentrates, distillates, and edibles. Green Envy will integrate the Affinity™ units into its existing process platform for the production of full-spectrum distillates.

Sixth Wave expects to recognize revenue from this sale starting in the first fiscal quarter in 2021.

Final Thoughts

Sixth Wave can apply its MIP solutions across a broad range of industries. The company is currently commercializing solutions in the cannabis and gold mining industries, and is testing an innovative solution for the detection of the virus that causes COVID-19.

Unfortunately, this current health crisis is not the first global pandemic and probably won't be the last but Sixth Wave's technology could provide a faster and cheaper way for

virus detection this year.

Sixth Wave currently trades at \$0.35 with a Market Cap of \$ 30.7 million.

Sixth Wave Innovations leads virus detection through breath testing

Using nanotechnology to quickly identify pathogens

Imagine if taking a coronavirus test was as simple as an alcohol breathalyzer, or a pregnancy test, and the results just as fast. One company has developed a test that uses **molecular imprinted polymers** with the possibility of detecting almost any pathogen, and is now using their technology to develop a way to detect for COVID-19 as easily as using a saliva test or a swab test.

Sixth Wave Innovations (CSE: SIXW | OTCQB: ATURF | FSE: AHUH) is a development stage nanotechnology company with patented technologies that focus on the extraction and detection of target substances at the molecular level using highly specialized 'molecular imprinted polymers' (MIPs). The target substances can be anything, such as pathogens (viruses & bacteria), gold, or anything made of molecules (that's every substance).

Sixth Wave has technology to make a 'polymer imprint' for molecules including viruses. Sixth Wave is working to develop

a molecular imprint for the coronavirus so they can capture the virus in their polymer and then apply various techniques to detect the virus such as colormetrics or electronics.

The company is working toward incorporating the technology into a mask **so you could wear a mask that both protects and detects for COVID-19**. Another concept is to have the MIP inside a coated barcode strip which you would then scan with your smartphone to see if you have been infected or not. (See: Sixth Wave working on a virus breath test.)

President, CEO and Founder Dr. Jonathan Gluckman explained that a “virus has a size and shape and we create an imprint in our polymer for that exact virus. Then we will detect that directly based on our chemistry.” He continued that Sixth Wave is “working to integrate this into masks and breathalyzers and then we can just utilize the breath, as we all know that’s the main transmission method. If you think about putting a mask on, not only will that mask provide protection, it can also, right there, be the test for COVID-19.”

Highlighting the advantages of Sixth Wave’s COVID-19 test over other tests, Dr. Gluckman also said that **the test will be cheaper, faster, less invasive, and easy to use**.

Dr. Gluckman says that Sixth Wave’s COVID-19 detection technology is currently under development, but the Company has successfully launched and commercialized other products with similar properties. The coronavirus tests are planned to be ready for an early 2021 rollout. The company has received a grant from the Canadian government to work with York University and the CTRI to use its virus detection technology to detect COVID-19 virus in wastewater supplies and in air handling systems.

Sixth Wave Innovations can detect and extract anything at the molecular level – Target markets include COVID-19 testing, gold extraction, and cannabis purification



Source

Sixth Wave Innovations technology can be used for other applications

Gold extraction

IXOS® is a line of extraction polymers for the gold mining industry 100% developed and owned by Sixth Wave and patented/patent pending in 40+ countries worldwide. CEO Gluckman says the technology can save gold mining companies about US\$100/oz on their processing costs based on pilot scale test results for multiple mines.

Sixth Wave Innovations IXOS® can save gold miners up to US\$100/oz in gold processing costs




Dr. JONATHAN GLUCKMAN
President/CEO

SIXTH WAVE

IXOS[®] PRODUCT DETAILS

MIPs for the Extraction of Gold



Note: Gold in Chloride changes the color of the beads

Operational & Performance Capability - Summary

- High Gold capacity (about 25g/kg, 10x more than carbon)
- High selectivity (>97%, vs. about 40% for carbon)
- Easy to unload the gold (carbon needs heat, pressure, and chemicals)
- No regeneration - it's ready to go again after unloading (carbon needs more heat and more chemicals)
- Better for the environment
- Fewer waste products
- Lower carbon footprints
- Less water used in the Adsorption/Desorption Recovery
- \$100 USD/Oz Savings (Based on Pilot Scale Test Results for multiple mines)

Source: Corporate presentation

Cannabis Purification

Sixth Wave is in the process of commercializing its Affinity™ cannabinoid purification system. The Affinity™ Technology for the medical and recreational cannabis industry is 100% developed and owned by Sixth Wave with a patent pending. Affinity™ products are now rolling out and starting to generate revenue for Sixth Wave, including an initial 300 Affinity units.

Other applications

Sixth Wave's Molecular Imprinted Polymers (MIPs) have also been applied in industries including security (SAFE-T explosives detective wipes), mining (gold & silver extraction, also removal of mercury), and other pathogen detection. The potential list of applications is enormous.

Sixth Wave Innovations planned revenue streams



Revenue Streams

SHORT TERM VS LONG TERM DEVELOPMENT

SHORT TERM

- Sixth Wave has completed pilot testing the Affinity™ System for Cannabinoid Purification. We expect to begin system installation in July 2020. Our goal is to have 30 commercial revenue producing units in place by December 2021. (Each standard unit has the ability to generate > \$1MM annually).
- Sixth Wave expects to commercialize its AMIPs™ Technology for biogenic amines, as well as virus detection by 2021.

MID TERM

- AMIPS: Virus detection pathway to market in 6-8 months with appropriate funding.

LONG TERM

- Prospective Pipeline of inquiries for ~ 300 Affinity™ units.
- Sixth Wave expects to begin final testing and configuration of the IXOS® Gold Extraction Plant for a major Gold producer in 2021.

Source: Corporate presentation

Closing remarks

History has repeatedly shown how mankind makes incredible innovative technology during incredible times. Here we are facing one of this century's greatest pandemics and scientists globally are racing to develop better diagnostic tests, treatments and vaccines.

In the case of Sixth Wave Innovations it is fast-tracking the development of an innovative technology to detect and extract polymer molecules. They are now focused on adapting their technology to make a polymer imprint of the coronavirus that can, if successful, make COVID-19 detection as simple and fast as a breath test, whether on a test strip or even on a dual-purpose face mask. Imagine wearing a face mask that can also detect COVID-19. Sixth Wave's COVID-19 detection technology targeted for early 2021, and if successful it will be a massive win-win for the public and also for Sixth Wave Innovations.

Meanwhile, Sixth Wave will be advancing their near term revenues from Affinity™, and later hopefully from IXOS®. The current market cap of Sixth Wave Innovations is only C\$21m thereby presenting a tremendous early stage speculative opportunity for investors.