

# Sixth Wave's Dr Jon Gluckman on the competitive advantages of Molecular Imprint Polymers for the rapid detection of viruses

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In a recent InvestorIntel interview, Tracy Weslosky speaks with Dr. Jon Gluckman, President, CEO and Founder of [Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: ATURF) about the application of their patented Molecular Imprint Polymers (#MIPs) technology for the detection of the COVID-19 virus, the flu and virus detection in general.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Dr. Gluckman went on to say that their patented #MIPs technology can identify molecules and may be used for detection of viruses in general and more specifically for COVID-19. He added, "We are in the phase 2 of our development for a COVID-19 test that would be completely synthetic test based on our molecular imprinted polymer technology." Sixth Wave was recently awarded funding from the Nova Scotia COVID-19 Response Council for the development of its Accelerated Molecularly Imprinted Polymer (AMIPs™) technology for the rapid detection of viruses such as SARS-CoV-2.

Speaking on the advantages of their synthetic test Dr. Gluckman said that the two test currently used for COVID-19 detection uses biological material which is fragile and uses tremendous infrastructure to support growing of the biological materials.

He explained that Sixth Wave's technology uses synthetic polymers to detect viruses at a very low cost and allows for extended shelf life, minimal storage and handling requirements, and less sensitivity to temperature and light degradation.

To watch the complete interview, [click here](#)

### **About Sixth Wave**

Sixth Wave is a nanotechnology company with patented technologies that focus on extraction and detection of target substances at the molecular level using highly specialized Molecularly Imprinted Polymers (MIPs). The Company is in the process of commercial roll out of its Affinity™ cannabinoid purification system, as well as, IXOS®, a line of extraction polymers for the gold mining industry. The Company is in the development stages of a rapid diagnostic test for viruses under the Accelerated MIPs (AMIPS™) label.

Sixth Wave can design, develop and commercialize MIP solutions across a broad spectrum of industries. The company is focused on nanotechnology architectures that are highly relevant for detection and separation of viruses, biogenic amines and other pathogens, for which the Company has products at various stages of development.

To learn more about Sixth Wave Innovations Inc., [click here](#)

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# **Biden's win brings a "green" market wave and cannabis extraction team attracts the Sixth Wave**

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**"Waves are inspiring not because they rise and fail, but because each time they fall. They never fail to rise again." – Josh Billings**

The Democratic "blue" wave failed to materialize during the recent U.S. elections but the "green" cannabis wave continues to build. Five states (Arizona, Mississippi, Montana, New Jersey, and South Dakota) easily passed ballot initiatives for the legalization of either recreational or medical cannabis use.

Currently, the medical use of cannabis is legalized in 35 states and the recreational use of cannabis is legalized in 15 states. Although federally illegal in the U.S., there is speculation that the Biden win is an important first step on the path towards the federal decriminalization of cannabis.

In the U.S., medical and recreational cannabis sales are on pace to exceed US\$15.5 billion by the end of 2020, an increase of approximately 40% over 2019, and grow by 30% in 2021.

To meet the higher demand, technology advancements have manifested in all parts of the supply chain, especially in the extraction and purification process.

## **Extraction**

The three main methods of cannabinoid extraction are (1) ethanol or alcohol extraction; (2) hydrocarbon extraction, using butane or propane; and (3) carbon dioxide (“CO2”) extraction. If higher purity levels are required, a distillation process, often using chromatography technology, can increase purity levels into the high 90%.

As the industry shifts into pharmaceutical-grade production to meet medical and cannabis-infused products, cannabis extract producers continue to search for innovative ways to improve the purity of cannabinoid isolates and control costs.

One of the challenges for cannabis extract producers is that organic material has varying properties from batch-to-batch and a potential processing risk when scaling operations.

### **Sixth Wave – Cannabis Extraction Using Nanotechnology**

[Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: ATURF) is a nanotechnology company focused on the detection and extraction of target substances (e.g. cannabinoid, gold, or Covid-19) at the molecular level using patented technologies.

Led by a team of PhDs and scientists, Sixth Wave’s Affinity™ System uses a proprietary Molecular Imprinted Polymers technology in the process of extracting cannabidiol (“CBD”) and tetrahydrocannabinol (“THC”) from hemp and cannabis.

The extraction process uses porous polymer beads and the polymer is designed to attract a specific molecule. As CBD and THC are both molecules, Sixth Wave created proprietary polymers to specifically target those molecules in the extraction process.

### **Benefits of Sixth Wave’s Technology**

Unlike other batch processes that purify components out of a product in various stages, Sixth Wave's process can take a wide variety of input materials, run it through the solution, and the polymer will selectively extract the specific cannabinoids. The resulting cannabinoid isolate can be up to 99.9% pure.

Chromatography, the legacy technology for purifying cannabinoid extractions, is considered to have issues with high capital and operating costs, efficiency, and scalability.

The Affinity™ System was designed to be highly automated and user friendly, requiring minimal training and human intervention. The system uses lower-cost components, minimizes the need for intermediate batch processing, and can be operated continuously, making it a more cost-effective solution.

Dr. Jonathan Gluckman, President and CEO of Sixth Wave, said, "As we know, a major challenge for the cannabinoid purification industry will be the delivery of customization and flexibility, with medicinal and recreational applications demanding exceptional product diversity. The Affinity™ System is highly capable in this regard, with the potential to tailor extraction media to recover any one of the hundreds of cannabinoids available to us."

## **Market Size**

According to a recent study, the cannabis extraction market is expected to be worth US\$28.5 billion by 2027, growing at 16.6% annually.

The growing legalization of cannabis in various countries and the use of CBD and THC for treating illnesses such as arthritis, anxiety, and nausea are the main factors driving growth.

Sixth Wave is currently working with several customers designing

larger processing capabilities. In April, the Company announced an agreement with Green Envy for the purchase of a minimum of three Affinity™ extraction units. It expects to deliver the first revenue-generating system to Green Envy by the end of this year. Expect more deals to be announced as the Company shifts from development to production.

The Company is well funded as it recently closed a \$1.15 million financing and intends to use the proceeds for the deployment of its Affinity™ cannabis extraction units as well as for other general corporate purposes.

**Time to jump on Sixth Wave to ride the resurging cannabis trend.**



[SOURCE](#)

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# **Sixth Wave Innovations leads virus detection through breath testing**

written by InvestorNews | November 25, 2020

## **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**





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**



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.

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## **Dr Gluckman on the rapid-detection benefits of Sixth Wave's virus test kits**

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"You can think about our polymer almost like an antibody inside a body," says Dr. Jonathan Gluckman, President, CEO and Founder of [Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: ATURF), in an interview with InvestorIntel's Tracy Weslosky. "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. "We are 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.”

Dr. Gluckman explained 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 company has received a grant from the Canadian government to work with York University and the CTRI (Centre Technologique des Résidus Industriels) to use its virus detection technology to detect COVID-19 virus in wastewater supplies and in air handling systems.

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

To access the complete interview, [click here](#).

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