

# 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<sup>®</sup> 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.