# Sixth Wave and York University Co-Develop a Fluorometric Microfluidic AMIPs Device

written by Raj Shah | November 16, 2021

November 16, 2021 (Source) – **Sixth Wave Innovations Inc. (CSE: SIXW) (OTCQB: SIXWF) (FSE: AHUH) ("Sixth Wave", "SIXW" or the "Company")** is pleased to provide an update on the development of it's Accelerated Molecular Imprinted Polymers (**AMIPs**™) and ongoing collaboration with York University.

Sixth Wave has successfully integrated its AMIP™ technology into a multicomponent microfluidic device with fluorescent detection. The prototype device, created by Dr. Pouya Rezai's and Dr. Satinder Brar's groups at York University, coats a thin layer of AMIPs™ polymer onto fluorescent magnetic microparticles. As the ultra-thin AMIP™ polymer shell binds the target pathogen, a change in the fluorescent signal is detected by the device. The integration of the detectors with microfluidics devices and "lab-on-a-chip" designs allow screening for multiple pathogens with a single test/device.

*"The integration of the AMIPs™ technology into a complex multi-component system is a key deliverable as we continue to expand the capabilities of our product development,"* explained Dr. Garrett Kraft, Vice President of Innovations at Sixth Wave. *"The technologies and components integrated into this device include Molecularly Imprinted Polymer coatings on non-flat surfaces, magnetic fluorescent microparticles, microfluidics with magnetic field manipulation, and fluorescent imaging with integrated image analysis software."*

Further research and development will characterize the device's technical parameters including sensitivity and specificity. Sixth Wave is building a fundamental foundation that will allow the integration of other advanced technologies such as Artificial Intelligence, machine learning, and automation with AMIPs™ technology. It is envisioned that Sixth Wave technologies will be especially useful when managing a large network of devices and monitoring metadata from large populations in real-time. The current device can run in a continuous monitoring configuration.

The recent advancements of Sixth Wave's AMIPs™ technology and demonstrated integration into electrical and fluorescent detectors have proven the flexible nature of the technology. With a solid fundamental foundation established, work continues towards developing the necessary technical specifications for each end-use application. Applications include personal diagnostics as well as high-throughput screening of air, surface, and water systems. The applications, in different environments, pose separate and unique challenges. Recent work directly contributes to novel solutions for the challenges in each of the aforementioned end-use applications.

The prototype is a result of the intellectual property detailed in the patent filed on September 28, 2021. The patent application Titled: *MOLECULARLY IMPRINTED POLYMER COATINGS AND SENSORS FOR BIO DETECTION*, covers the intellectual property generated by the collaboration with York University. The work with York University is an expansion of Sixth Wave's efforts with the AMIPs™ product line and covers the capabilities of detecting both viral and bacterial-based pathogens in fluid samples. The early-stage results are a part of SIXW's long-term plans to expand the AMIPs™ technology to detect a wide range of

target pathogens and biomarkers that determine a change in health status and continuous real-time monitoring.

The Company continues to progress through an aggressive R&D program geared toward developing a wide range of AMIPs™ Virus/Bacteria rapid detection devices. The spectrum of prospective products will include SIXW's SmartMask™ offerings, in addition to smart-clothing, PPE applications, airborne sensors, breathalyzers, ELISA-based technologies, cartridge/lateral flow designs, and others.

As previously reported, SIXW has filed three patents regarding the AMIPs™ technology and its application to specific products that can utilize AMIPs™. The Company is not making any express or implied claims that its current AMIPs™ product has the ability to eliminate, cure, contain, or detect, at a commercial level, COVID-19 (or SARS-2 coronavirus) at this time.

For more information on the AMIPs™ and associated molecular imprinting technology, please visit: https://www.amips.com

**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 a commercial rollout 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 the detection and separation of viruses, biogenic amines, and other pathogens, for which the Company has products at various stages of development.

For more information about Sixth Wave, please visit our website at: www.sixthwave.com

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**Cautionary Notes**

*This press release includes certain statements that may be deemed "forward-looking statements" including statements regarding the planned use of proceeds and performance of the AMIPs™ technologies. All statements in this release, other than statements of historical facts, that address future events or developments that the Company expects, are forward-looking statements. Although the Company believes the expectations expressed in such forward-looking statements are based on reasonable assumptions, such statements are not guarantees of future performance, and actual events or developments may differ materially from those in forward-looking statements. Such forward-looking statements necessarily involve known and unknown risks and uncertainties, which may cause the Company's actual performance and financial results in future periods to differ materially from any projections of future performance or results*

*expressed or implied by such forward-looking statements. In particular, successful development and commercialization of the AMIPs™ technology are subject to the risk that the AMIPs™ technology may not prove to be successful in detecting virus targets effectively or at all, the uncertainty of medical product development, the uncertainty of timing or availability of required regulatory approvals, lack of track record of developing products for medical applications and the need for additional capital to carry out product development activities. The value of any products ultimately developed could be negatively impacted if the patent is not granted. The Company has not yet completed the development of a prototype for the product that is subject of its patent application and has not yet applied for regulatory approval for the use of this product from any regulatory agency.*