Sixth Wave's AMIPs Technology Achieves High-Sensitivity Detection of Covid-Causing Virus

written by Igor Makarov | August 19, 2021
August 19, 2021 (Source) – **Sixth Wave Innovations Inc. (CSE: SIXW) (OTCQB: SIXWF) (FSE: AHUH) ("Sixth Wave", "SIXW" or the "Company")** is pleased to announce that it has improved the sensitivity and capability of its leading-edge nanotechnology to detect the presence of the SARS-CoV-2 at levels below 1,000,000 virus particles/mL.

This high level of sensitivity is crucial to detecting infectious patients, and an important clinical weapon in the struggle to control the global spread of the Covid pandemic.

"*Reaching sensitivity measurements of 1,000,000 virus particles/mL is a huge technical achievement*," says Dr. Michael Joyce, a virologist who carried out the research at the University of Alberta's Li Ka Shing Institute of Virology. "*At this level, infectious persons who are actively shedding the virus can be detected*."

Testing at the La Ki Shing Institute was carried out using live SARS-CoV-2 virus and SIXW's fluorescent based pseudo-ELISA in their BSL 3 certified facilities. The pseudo-ELISA test uses the Company's patent pending Accelerated Molecular Imprinted Polymers ("**AMIPs**™") technology.

"*We have been very impressed with the capabilities and rapid development of the AMIPs technology*," says Dr. Joyce. "*The*

technology has now shifted from a proof-of-principle phase to the point of achieving the technical objectives required for clinically relevant prototypes."

Consistent outbreaks of the SARS-CoV-2 virus – even in countries with significant percentages of vaccinated citizens – demonstrates the magnitude and complexity of trying to reverse a worldwide pandemic. High levels of virus mutation have led to multiple variants, notably the Delta variant which has swiftly become the predominant driver of breakthrough infections in vaccinated populations.

All evidence points to an extended coexistence with COVID-19, meaning that precision testing for the virus – such as that demonstrated by Sixth Wave's successful testing and the related products it is developing – will remain critically important for the foreseeable future.

The ability of Sixth Wave's AMIPs technology to rapidly detect variants offers the potential for health professionals to keep pace with a constantly changing diagnostic environment. Published market analysis indicates the overall market for COVID-19 diagnostic testing alone is expected to continue to grow for the next few years, remaining at levels higher than 2020 through at least 2027 (https://www.grandviewresearch.com/industry-analysis/covid-19-diagnostics-market).

In the research at Li Ka Shing, the samples were tested in cell culture supernatant to allow for basic specificity parameters. The fluorescent-based sensors demonstrated significant signal compared to the negative control (cell culture supernatant without virus). The colour-based sensor testing using a pseudo-ELISA test format (pseudo-ELISA – demonstrated functionality similar to an enzyme-linked immunosorbent assay ("**ELISA**") test),

and was achieved using a commercial off-the-shelf fluorescent dye.

"*Hitting this level of detection is a huge achievement for us,*" says Dr. Garrett Kraft, Vice President of Innovation at Sixth Wave. "*With this technical milestone we are fulfilling the sensitivity requirements for many of our intended end-use applications for high throughput screening. These types of applications are of special interest to Sixth Wave because they take advantage of the robust and low-cost nature of the AMIPs technology and address an unmet need in the marketplace.*"

The Company is quickly moving through a program of development and scale-up milestones toward a wide range of AMIPs virus rapid detection devices. The spectrum of prospective products will include SIXW's SmartMask™ offerings (see SIXW Press Release dated May 15, 2020), 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 two 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 web site at: www.sixthwave.com

ON BEHALF OF THE BOARD OF DIRECTORS

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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.