Sixth Wave's AMIPs(TM) Technology to Address SARS-CoV-2 Omicron (B.1.1.529) Variant Testing Concerns

written by Igor Makarov | December 1, 2021

December 1, 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 its patent-pending Accelerated Molecularly Imprinted Polymer ("**AMIPs**™") technology relative to SARS-CoV-2 variants of concern, in particular, the B.1.1.529 (Omicron) variant.

As previously announced, the AMIPS platform has been proven to be capable of detecting all of the variants of interest tested to date. Screening against the Omicron variant will commence as soon as virus samples are available at the La Ki Shing Institute of virology, SIXW's testing partner.

AMIPs Detection

AMIPs have, to date, shown the potential to be resistant to false negatives (a negative test result in an infected individual) resulting from genetic drift of new variants of the virus. AMIPs bind to the entire virus rather than the comparatively smaller portion of the spike proteins to which antibody tests generally bind. This provides a significantly larger point of contact between AMIPs™ and the virus, as compared to antibody-based techniques. The 50 mutations characterized in the Omicron variant represent a lesser difference relative to the entire structure of the virus than the 32 mutations present in the much smaller spike protein and

the receptor-binding domain on which they are concentrated. This is expected to result in AMIPs™ being more effective in accurately detecting mutations of the target virus than antibody-based detection techniques.

B.1.1.529 (Omicron) Variant

The Omicron variant has 50 mutations in total, 32 of which are concentrated on the spike protein and the receptor-binding domain (the part of the spike protein that attaches to the cell receptor (ACE2) and initiates viral uptake into the cell). Several of the mutations are seen in other variants such as Delta and are linked to traits of increased binding affinity to the ACE2 receptor, increased viral loads, enhanced transmissibility, promoted immune escape, and decreased antibody neutralization levels. The combination of mutations represents significant potential for reinfection from the waning of natural and vaccine-induced immunity. Certain experts contend that vaccine makers may have to adapt their products as high rates of virus mutation are maintained. A similar concern is expressed for other antibody-based technologies such as antigen tests and monoclonal antibody therapies.

Omicron’s overall mutational profile is drastically different from the profile on which current COVID-19 vaccines are based. This suggests a potentially higher transmission advantage. The heavily mutated Omicron COVID-19 variant is likely to spread internationally and poses a very high risk of infection surges that could have “severe consequences” in some places, the World Health Organization said on Monday.

The identification of yet another variant with suspected properties more transmissible and potentially dangerous than previous generations strongly indicates that COVID-19 will be around for a long time and that highly accurate, fast, and

affordable testing regimes must become the norm. Ongoing testing is absolutely critical for the safety of the global population as the world attempts to return to a pre-COVID lifestyle.

SIXW continues to maintain its rapid development of AMIPs technology. The Company expects to complete the next development phase in the coming weeks, with a successful outcome leading to validation testing by 3rd party laboratories.

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

ON BEHALF OF THE BOARD OF DIRECTORS
"Jonathan Gluckman"
Jonathan Gluckman, Ph.D., President & CEO

For information, please contact the Company:
Phone: (801) 582-0559
E-mail: info@sixthwave.com

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.