Sixth Wave Updates on AMIPs Technology for Rapid Detection of Viruses & Mutations

written by Raj Shah | February 3, 2021

February 2, 2021 (Source) – **Sixth Wave Innovations Inc.** (CSE: SIXW) (OTCQB: ATURF) (FSE: AHUH) ("**Sixth Wave**", or the "**Company**") is pleased to provide an update regarding the development of its Accelerated Molecularly Imprinted Polymers ("**AMIPs™**") technology for the rapid detection of viruses and associated mutations.

AMIPs™ development commenced in Q2 2020, with a number of notable benchmarks having been achieved since then. Phase 1, desktop design work on the AMIPs™ virus detection polymer and detection systems was completed in 2020. This design work is being implemented in the polymer development work currently being undertaken pursuant to an agreement with researchers at the University of Alberta ("**U of A**"). Dr. Garrett Kraft, a Senior Scientist at Sixth Wave, is working at U of A in Edmonton as lead researcher. The Company reports significant progress regarding the development of the AMIPs™ polymer:

- Sixth Wave has successfully completed development of the virus immobilization platform to be used for imprinting. This first production step distributes and deposits the virus onto a solid substrate that allows the generation of a template for creating the final AMIPs™. Completion of this step allows us to proceed directly to the creation of the functional AMIPs™ nanostructured polymer. This provides the foundation for creating artificial imprinting polymer

templates, allowing for the production of AMIPs™ without the use of the virus or antibodies as part of the mass production of AMIPs™.

- Sixth Wave has successfully developed a virus application and distribution process to bind the virus to the immobilization substrate and confirmed successful deposition and distribution of the actual *SARS-CoV-2* virus on the substrate. Sixth Wave has validated these results with Atomic Force Microscopy (AFM) which provides quantitative and visual confirmation.

Note that the above two steps will be common to the development of AMIPs™ products for other viruses, including any significant mutations that dramatically change the physical properties of the SARS-CoV-2 virus should they occur in the future. The successful development and testing of these protocols allows the Company to rapidly adapt the AMIPs™ to any such SARS-CoV-2 variants and provides the platform for increasing the number of different viruses detectable with AMIPs™.

Research is currently focused on producing the first fully-formed molecular imprint designed to capture the SARS-CoV-2 (COVID-19) virus.

In addition to participation by world-renowned scientists, the state-of-the-art facilities at the U of A and the Li Ka Shing Institute of Virology allow the Company to progress this development work in parallel with the existing Affinity™ cannabis project. This negates the need to expand internal facilities and limits development costs. Sixth Wave has received work authorization waivers to allow the research and development to proceed pursuant to U of A and Provincial COVID-19 restrictions. This work is partially funded through a

participation agreement with the Province of Nova Scotia COVID-19 Response Counsel. Any new intellectual property derived as part of the Services Agreement with the University of Alberta will remain the sole property of Sixth Wave.

The Company also reports that work continues further to an agreement with York University of Toronto for the detection of the airborne virus, funded in part by the Natural Science and Engineering Research Council of Canada ("**NSERC**"). The specific goals of this project are to develop a continuous monitoring and detection system for airborne viruses in multiple environments such as heating, air conditioning, and ventilation systems utilizing AMIPs™.

"The rapid evolution of SARS-CoV-2 indicates a mutation scenario with which immunoassay-based RDT's may be incapable of keeping pace," said Dr. Jon Gluckman, President, and CEO of Sixth Wave. *"Recent mutations such as the Brazilian variant ("P.1"), in which the virus appears to be less recognizable by antibodies generated from a previous COVID-19 infection, are of particular concern. All of the existing immunoassay tests – rapid or otherwise – rely on known antibodies produced in animals to capture and immobilize the COVID-19 virus from test samples. Variants such as the P.1 may render such tests of limited or no value, since the antibodies may never capture the mutated virus and therefore would never generate a positive response even with the virus present."*

"Scientific and public policy leaders indicate that achieving back-to-normal activities will require near-constant testing for the next several years at a minimum, especially with regards to travel, sporting activities, family gatherings, and the like," continued Gluckman. *"While immunoassay tests are coming to market, none appear to provide clear pathways comparable to*

AMIPs™, that has the potential to accommodate multiple emerging variants using a single testing tool".

While these are substantial milestones in the development of AMIPs™ and validating production methods, the company is not making any express or implied claims that its product has the ability to eliminate, cure, detect, or contain the COVID-19 (or SARS-2 coronavirus) at this time.

The Company further reports that it has settled convertible debt in the amount of USD $276,178 (CAD $351,461) through the issuance of 1,301,520 common shares.

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) and other techniques. 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 the risk that the AMIPs™ technology may not prove to be successful in detecting virus targets effectively or at all, uncertainty of medical product development, 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.