

Sixth Wave Updates on Engineering of Affinity(TM) System

written by Igor Makarov | September 29, 2021

September 29, 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 upgraded engineering of its Affinity™ System (the “**System**“) for purification of cannabinoids.

The upgraded design of the system, being undertaken by the Company’s production partner, Advanced Extraction Systems Inc. (**AESI**), located in Charlottetown, Prince Edward Island, incorporates improved Affinity™ bead performance outlined in the Company’s press release dated [September 15, 2021](#).

These advancements in the design of the Affinity™ System follow a robust and rigorous design of experiments aimed at stress testing the system and a complete redesign of the Affinity™ System including the operating hardware. The upgraded systems will allow for increased throughput, with a smaller and simpler design than originally contemplated. The upgraded system will consist of a four-column configuration, as opposed to the twenty-column configuration originally contemplated. This simpler configuration, coupled with the previously reported improvements in bead capacities, should result in a number of improvements to the system and its capabilities:

- Reduction in the number of columns from 20 to 4.
- Simplified flow sheet eliminating classic winterization with filtration.
- Cycle times reduced for complete processing of a column to

approximately 15 minutes.

- Significantly reduced ethanol usage and storage requirements, which will, in turn, result in reduced solvent recovery requirements.
- Production of greater than 90% pure cannabinoid distillate on a single pass.
- Total cannabinoid recovery in excess of 95% system-wide with the ability to recapture approximately 4% giving a nearly 99% recovery.

Eliminating conventional distillation product loss of up to 15% from inefficient processing temperatures has the potential to significantly improve economics for Affinity System customers.



The above rendering is the current design of the system, subject

to final refinements resulting from the commissioning process

To view an enhanced version of this graphic, please visit:

https://orders.newsfilecorp.com/files/5010/97943_964da1cc448059f1_001full.jpg

Construction of Sixth Wave's initial pre-production units including the two pilot systems and the first full Affinity™ System (all expected to be completed and put in service before the end of the year) continues at AESI, under the supervision of Mr. John Cowan, SIXW's Chief Operating Officer. The first of two pilot systems entered wet testing on September 23, 2021. Once stress testing is completed, upgraded, and validated Affinity™ molecularly imprinted polymer (MIP) beads will be loaded into the system. The pilot system, expected to be delivered to Green Envy Extracts, will be a simplified, two-column system, capable of producing up to 15kg of high purity distillate. The four-column system is expected to be capable of producing up to 30kg of distillate per day.

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 also 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

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”

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Cautionary Notes

This press release includes certain statements that may be deemed “forward-looking statements” including possible statements regarding the planned use of proceeds and performance of the IXOS[®], Affinity[™], and 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 IXOS[®], Affinity[™], or AMIPs[™] technologies

are subject to the risk that they may not prove to be successful, the uncertainty of medical product development, the uncertainty of timing or availability of required regulatory approvals, lack of track record of developing products for certain 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 patents are not granted. The Company has not yet applied for regulatory approval for the use of this product from any regulatory agency.