

# Sixth Wave AMIPs(TM) Prototype Successfully Detects E. Coli Bacteria in 5 Minutes

written by Raj Shah | July 5, 2022

July 5, 2022 ([Source](#)) – **Sixth Wave Innovations Inc. (CSE: SIXW) (OTCQB: SIXWF) (FSE: AHUH) (“Sixth Wave”, “SIXW” or the “Company”)** is pleased to announce that its patent pending Accelerated Molecularly Imprinted Polymer (“**AMIPs™**”) technology has achieved a new performance milestone for the detection of E. Coli bacteria. The purpose of this project is to develop a multiplexed automated device that can quickly diagnosis Urinary Tract Infections (UTIs) at point of care. This will drastically reduce diagnostic time, cost, and time to treatment, while increasing the probability of successful treatment. Escherichia coli is one of the most frequent causes of many common bacterial infections, including cholecystitis, bacteremia, cholangitis, urinary tract infection (UTI), and traveler’s diarrhea, and other clinical infections such as neonatal meningitis and pneumonia.

In collaboration with Dr. Pouya Razai at York University, the team has developed a microfluidic device with sensitivity down to 1,000 bacteria/mL. The prototype can achieve this limit of detection in as little as 5 minutes with 0.25 mL of sample. This is a significant advancement over conventional techniques that require growing bacteria in samples for 24 to 48 hours, or compared to other experimental technologies with much higher detection limits at 100,000 bacteria/mL detected that require 30 minutes or more.

*“We are still in the laboratory testing phase and prototype development of the nanotechnology and microfluidics system for*

*both bacteria and viruses, but these results are very promising for point of care testing. The expansion of the AMIPs platform to new pathogens, form factors, and diagnostic applications showcases the versatility of this MIPS platform and our ability to perform multiple tests simultaneously and on a common system.” Said Dr. Garrett Kraft, Vice President of Innovation at Sixth Wave.*

The current prototype uses a fluorescent detection mechanism and a microfluidics device. The next phase of the research is to initiate specificity experiments against other bacteria and miniaturize the analyzer unit of the device. The research on this project is fully funded for the next 2 years by the NSERC grant awarded to the team and announced on April 6, 2022.

The testing market for E. coli is already robust with expected growth of over USD\$787M increase expected between now and 2026 with an estimated growth of CAGR of 7.86% according to a report published by TechNavio in February 2022 ([https://www.technavio.com/report/escherichia-coli-testing-market-industry-analysis?utm\\_source=prnewswire&utm\\_medium=pressrelease&utm\\_campaign=t50\\_rdcg\\_report\\_wk8\\_2022\\_003&utm\\_content=IRTNTR72341&nowebp](https://www.technavio.com/report/escherichia-coli-testing-market-industry-analysis?utm_source=prnewswire&utm_medium=pressrelease&utm_campaign=t50_rdcg_report_wk8_2022_003&utm_content=IRTNTR72341&nowebp))

The Company is not making any express or implied claims that its current AMIPs™ products have the ability to eliminate, cure, contain, at a commercial level, any disease or pathogen at this time.

## **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](http://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.