

Sixth Wave Partners with Acamp to Develop RFID Enabled Virus Detection Products Utilizing AMIPs™



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Sixth Wave Innovations Inc. (SIXW) has signed an agreement with the Alberta Center for Advanced Micro/Nanotechnology Products (ACAMP) to integrate Radio Frequency (RF) based technology with the company's Accelerated Molecularly Imprinted Polymer (AMIPs™) virus detection technology, to create smart prototypes such as the company's proposed SmartMask™.

[SIXW](#) is engaging [ACAMP](#) for their expertise in RF technology with the goal of pairing the technology with [AMIPs™](#). Successful pairing would enable the integration of inexpensive commercially available radio frequency identification (RFID) tags within the AMIP product line, enabling the wireless transfer of data and results to a smartphone, mobile, or fixed-base RFID reader. This is a core feature of the proposed SmartMask™ enabling real time collection of testing data from any population during the onset of a viral outbreak. Work is now commencing, further to the agreement which was executed on April 26, 2021.

ACAMP is a unique industry-led advanced technology product development center with expertise in scaling innovative ideas from proof-of-concept to manufactured products by providing access to multidisciplinary engineers, technology experts, unique specialized equipment, and industry acumen.

ACAMP facilities have over 14,000 square feet of lab space and house over \$15 million in specialized product development equipment. Core competencies include hardware, software and firmware design, simulation, prototyping, testing and characterization, low-volume production, and design for manufacturing.

Offering unparalleled access to world-class engineering expertise, and advanced design, analysis, testing and manufacturing equipment, ACAMP can provide support at every stage of

development.

- Engineering design and review:

ACAMP's experienced development engineers can help with component specification, develop and optimize the design, and also review existing designs to identify opportunities for improvement.

- Simulation:

Access advanced simulation software to understand and optimize complex product design before building an initial prototype as a cost-effective way to speed up the development cycle.

- Prototyping:

Specialized in-house development equipment allows for production of advanced components early on in prototyping.

- Testing and characterization:

Thorough physical and environmental testing of prototypes is done in-house, including Highly Accelerated Life Testing ("HALT") to validate hardware performance to expected use cases. Advanced inspection and failure analysis equipment is used to detect component failures.

- Low-volume manufacturing:

Limited production runs of prototypes and final products allow field testing and demonstration of hardware.

- Technology scaling and transfer to enable high-volume manufacturing:

Use ACAMP to source and align with third-party manufacturers for cost-effective production.

AMIPs™ is a leading-edge detection platform that uses synthetic polymers to swiftly detect viruses such as the SARS-CoV-2 virus that causes Covid-19. The integration of RFID technology will allow the diagnostic devices to be paired with a smart phone or an RFID reader to simplify analysis of results, record keeping, and reporting.

AMIPs™ is based on Sixth Wave's patented and patent-pending molecularly imprinted polymer systems, which capture viruses using synthetic materials rather than biological antibodies. The addition of ACAMP to SIXW's current network of development partners, including the University of Alberta and the La Ki Shing Institute of Virology gives the project added access to advanced laboratory facilities and equipment to facilitate the prototyping of the AMIPS™ into specialized integrated systems.

ACAMP is located in Alberta near the [University of Alberta](#) and specializes in helping companies take prototypes from proof-of-concept to full scale manufacturing. ACAMP's proficiency in electronics and RF-based technologies directly correlate with SIXW's core features of several AMIPs™ products.

"Sixth Wave is excited to work with such an experienced research team to achieve the full potential of our vision for the AMIPS™ product line," said Dr. Jonathan Gluckman, CEO of Sixth Wave. "ACAMP provides a unique combination of skills and a breadth of knowledge in RF based technologies and manufacturing capabilities. This combination significantly streamlines our development of advanced product features and has the potential to reduce development and manufacturing costs."

"The solutions we develop will provide the first prototype AMIPS™ with advanced systems integration of multiple components and technologies and will be the basis for launching various products resulting in high throughput screening, point-of-care, and self-use tests," said Dr. Gluckman.

The Company is not making any express or implied claims that its product has the ability to eliminate, cure, contain, or detect, at a commercial level, COVID-19 (or SARS-2 coronavirus) at this time. The Company has not yet applied for regulatory approval for the use of the products contemplated by the agreement.

Read the [original article](#) on Sixth Wave Innovations Inc.