

# **With an effective anti-inflammatory and anti-fibrotic agent, Cardiol Therapeutics is focused on our hearts**

written by InvestorNews | July 31, 2023

Two very serious heart conditions are pericarditis and myocarditis. Both involve heart infection and can occur after having a flu, Covid-19, or other infection typically occurring in otherwise healthy young adults or in immune suppressed individuals (such as those undergoing cancer chemotherapy). 'Pericarditis' is an infection in the sack around the heart and 'myocarditis' is an infection in the heart's muscle tissue.

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# **Sixth Wave Innovation moves its IXOS gold extraction technology forward with USD\$50M+ multi-stage contract**

written by Tracy Weslosky | July 31, 2023

Until recently Sixth Wave has been a company with very promising technology but has been looking to turn that into dollars (revenue). That has now changed and could lead to a boost in the company's fortunes.

[Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: SIXWF) (“Sixth Wave”) is a nanotechnology company. The company’s technology focuses on ‘detecting, capturing, and releasing’ of target substances at the molecular level using specialized ‘molecularly imprinted polymers’ (“MIPs”). Six Wave is in the process of commercializing its Affinity™ cannabinoid purification system, AMIPS™ virus/bacteria detection, as well as their IXOS® extraction polymers for the gold mining industry. All of these are based on Sixth Wave’s MIPs technology which can detect, capture and release almost any target molecule.



Source: [Sixth Wave Innovation website](#)

On September 12, 2022, Sixth Wave [announced](#) that it and Magnus Mineral Resources (PVT) Ltd had signed a USD\$50M+ contract for the implementation of its IXOS Mining Technology at the Penhalonga Gold Mine and beyond. The announcement [stated](#) that Sixth Wave has signed “a three phase test and implementation contract... that will field SIXW’s patented IXOS® molecular imprinted polymer for extraction and purification of gold and silver... at the Penhalonga Gold Mine, Zimbabwe. Additionally, Magnus Resources plans to build and deploy three smaller processing plants to assist regional artisanal mining groups in Zimbabwe.” The company goes on to say that one of the benefits of using its extractive technology is to change “artisanal mining operations from dangerous and environmentally destructive practices involving mercury amalgamation.”

The first phase of the agreement involves laboratory extraction and recovery testing. The second involves pilot-plant process design, engineering, implementation for gold recovery from oxides; as well as delivery/commissioning of three portable VAT leach adsorption/desorption/recovery plants that are capable of

processing 100tpd of ore. The third phase will involve the testing and optimization of extraction for the transitional and refractory ore present at the mine.

While it is still early days and a lot needs to be achieved, Sixth Wave now has a pathway towards achieving significant revenue and a project to demonstrate that their technology is effective at scale in real world conditions. Plenty of risks still exist in terms of fulfilling the contract as well as Zimbabwe's country risk.

The key advantages of Sixth Wave's IXOS technology is that it has a high gold recovery ([average 95%](#)), it recovers gold with 90% less cyanide usage than conventional cyanidation, and has reduced energy requirements which lower processing costs.

It is often the case when new technology comes along there will be some resistance to change. However once it has been demonstrated to be effective at scale then the disruption begins, meaning others begin to seriously consider and adopt the technology. We have seen this with electric vehicles and we may be about to see this with gold mining via Sixth Wave and Magnus Resources' plan to deploy the IXOS MIPs technology in Zimbabwe.

If the project succeeds this should open the door to numerous other opportunities for Sixth Wave Innovations. Investors can be excited given this opportunity in the mining sector, not to mention all the [other areas of opportunity](#) across multiple sectors where Sixth Wave's multi-purpose MIPs can be effective.

Sixth Wave Innovations trades on a market cap of just [C\\$5.4M](#). Will this be the turning point for the company? Time will tell and some patience is required. But it certainly looks very promising.

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## **On the road to positive cash flow, biopharmaceutical company Avicanna launches its proprietary Pura H&W™**

written by InvestorNews | July 31, 2023

The cannabis sector has had a bit of a rough go over the last year or so, to say the least. In Canada, the worst performing stock on the TSE Composite index in 2021 was Canopy Growth Corp. (TSX: WEED | NYSE: CGC) dropping an abysmal 67% throughout the course of 2021. In fact, you'd be hard pressed to find a single cannabis name that showed a positive return over the year. I looked at about 20 equities and only found OrganiGram Holdings Ltd. (TSX: OGI | NASDAQ: OGI) that bucked the negative trend but that doesn't mean there weren't possibly a few more. Nevertheless, 2021 was not the year to be a diehard cannabis investor.

Will 2022 be the time to shine for cannabis? Perhaps, if you are in the correct segment or have the right name. I don't think we are going to see full on legalization in the U.S. this year that could potentially be the rising tide that lifts all boats. It strikes me that there may be a few more pressing matters on the political agenda that could take precedence over this subject, but you never know. In the meantime, I believe one has to focus on the road to profitability because sooner or later if you need to raise cash to survive in a sector with performance as poor as we saw in 2021 from cannabis it could be very difficult to get your hands on the capital you require to continue as a going concern. That's why today we are going to have a closer look at [Avicanna Inc.](#) (TSX: AVCN | OTCQX: AVCNF).

The Company has a few irons in the fire, so to speak, that are all coming along nicely on the road to positive cash flow. Avicanna is a Canadian commercial-stage biopharmaceutical company established in cannabinoid research, development, and evidence-based products. Avicanna's scientific platform has resulted in 30+ commercial and proprietary formulations and products including cosmetics, medical cannabis, and pharmaceuticals, in addition to its raw material business unit, which reaches across international markets. The latter, marketed under the Aureus™ brand, has successfully completed sales to 11 countries.

The two business segments I'd like to focus on today are the cosmetic business and the raw materials business. When I see what Kylie Jenner's net worth is after selling 51% of her cosmetics brand to Coty for \$600 million in 2019 it made me stop and think about what kind of money there was in this line of business. Ever since the legalization of cannabis in Canada and parts of the U.S. there has been a lot of hype but not a lot of profits. Recreational cannabis has struggled to compete with the illicit market (and still turn a profit), and cannabis 2.0 also

seems to be having a hard time finding traction in the marketplace. Medical cannabis appears to be doing well in certain areas but still has a lot of clinical trials and evidence-based science work ahead of it before it hits the mainstream. That's why I'm quite intrigued by Avicanna's CBD derma-cosmetic products marketed under Pura Health & Wellness (H&W)™ or Pura Earth™. These registered, clinically tested products include a portfolio of functional CBD topical products that have been designed to deliver CBD in synergy with other natural ingredients for specific functional skin benefits.



Source: Avicanna Inc. [Corporate Presentation](#)

On December 22<sup>nd</sup> the Company [announced](#) the brand launch and commercialization in the United States of its proprietary Pura H&W™ through its exclusive partnership with Red White and Bloom Brands Inc. (CSE: RWB). Avicanna's skincare line is currently available nationwide across Canada in medical channels in partnership with Medical Cannabis by Shoppers™ and in adult-use sales channels through retailers in 4 provinces. These products are also currently being sold in Colombia and Ecuador with anticipated product launches in the UK, and certain Latin American countries in 2022. I like the kind of revenue that can be generated in this business segment.

Another key differentiator for Avicanna, at least to me, is their established, sustainable and economical cultivation and extraction infrastructure in Columbia. I've often wondered why there was such a frenzy to build greenhouses in Canada to cultivate cannabis when you had to anticipate that it would just be a matter of time before far more economic sources of raw materials were available. Aureus™ is the Company's business-to-business raw material brand for cannabinoid Active

Pharmaceutical Ingredients, feminized seeds, cannabis biomass, and formulations offered with quality testing and tracking. The Company's extracts include oils, cannabinoid distillates, and isolated cannabinoids (CBD, THC, CBG, and other cannabinoids), and bulk formulations (derived from hemp and cannabis cultivars). Avicanna was ranked highest amongst global cannabis companies in the SAM Corporate Sustainability Assessment in the 2020 Sustainability Yearbook, a sustainability index that has become the basis for numerous S&P Global ESG indices. And as noted earlier, the Company has realized commercial sales of CBD, CBG and THC with exports made into eleven countries. To summarize, their raw materials business is profitable and ESG friendly.

These are just two of what I think are Avicanna's differentiators but there's a lot more going on. Their third quarter MD&A was 40 pages long if you'd like to have a read. Another near-term catalyst is agreements signed by the Company with two companies founded by former NBA star Al Harrington for the use of his brands, re+PLAY™ and Viola™. On December 20<sup>th</sup> Avicanna [announced](#) the launch of re+PLAY™ branded CBD topicals products in Canada across adult use channels in Alberta and Ontario, and medical channels in partnership with Medical Cannabis by Shoppers™. Granted all these late December announcements won't show up in the Company's Q4 results but there is definitely momentum. Gross revenue and product sales grew sequentially in each of the first three quarters of 2021. If that trajectory continues in Q4, then the addition of the two incremental deals noted above could make for an exciting Q1, 2022.

With all that said, Avicanna was not cash flow positive or profitable as of the end of their third quarter (Sep 30, 2021) and might not be come year end 2021. However, you can see the

direction things are going and make a case for some exciting results in early 2022. With only 46 million shares outstanding and a market cap of C\$23 million based on yesterday's close, there could be a lot of leverage to a quarterly result that shows positive numbers.

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# Sixth Wave hits the market with MIP coatings and sensors for the biodetection of viruses and bacteria

written by InvestorNews | July 31, 2023

[Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: SIXWF) ("Sixth Wave") is a nanotechnology company focused on the 'detection and extraction' of target substances at the molecular level using specialized molecularly imprinted polymers (MIPs).

**Sixth Wave's nanotechnology uses MIPs to detect and extract almost any target molecule**



Source: [Sixth Wave Innovation website – About MIPs](#)

There is a huge list of potential industries that can benefit from Sixth Wave's MIP technology; however key areas of interest for now for Sixth Wave are health (rapid COVID-19 detection), cannabis production (cannabinoid purification), security, gold and lithium extraction.



## **AMIP COVID-19 test with improved sensitivity**

[Announced](#) on August 19, 2021, Sixth Wave has improved the sensitivity and capability of its leading-edge nanotechnology AMIP to detect the presence of the COVID-19 virus at levels below 1,000,000 virus particles/mL. Dr. Garrett Kraft, Vice President of Innovation at Sixth Wave, [stated](#): “Hitting this level of detection is a huge achievement for us. With this technical milestone, we are fulfilling the sensitivity requirements for many of our intended end-use applications for high throughput screening.”

Note: Accelerated Molecular Imprinted Polymers (AMIPs) are rapid acting MIPs.

The clinical significance of a more sensitive test is the potential to detect COVID-19 earlier and in patients that are asymptomatic, when lower levels of the virus may be present. According to Grandview Research, the global COVID-19 diagnostics market size was estimated at [USD 84.4 billion](#).

Sixth Wave is quickly moving through a program of development and scale-up milestones toward a wide range of AMIPs virus rapid detection devices.

## **MIP coatings and sensors for biodetection of viruses and bacteria**

Sixth Wave recently [announced](#) that they have filed for a patent for their MIP coatings and sensors for biodetection. The patent focuses on the synthesis and processing of MIPs containing detection elements for viruses and bacteria. Sixth Wave [state](#): “The patent will be solely in the name of Sixth Wave, who will have exclusive ownership of the IP, subject to a reasonably agreed-upon license fee. The work with York University is an expansion of Sixth Wave’s efforts with the AMIP product line and

focuses on detecting both viral and bacterial-based pathogens in fluid samples.”

This could potentially be a huge business one day for Sixth Wave given the global need for rapid detection of viruses and bacteria.

### **More about Sixth Wave**

Sixth Wave has collaborated for research and testing with some of the largest entities in the chemical, resources, education, security, defense and medical sectors. Sixth Wave’s systems are all patented or patent pending in 40+ countries worldwide.

Sixth Wave’s key product names are IXOS® (a line of extraction polymers for the gold mining industry), Affinity™ (for the cannabis industry), and AMIPs (for sensitive and rapid COVID-19 testing). Sixth Wave recently [announced](#) an Affinity system has been shipped from the contract manufacturer and is on the way to Sixth Wave and then onto the first customer, Green Envy Extracts.

Other prospective products in development include a wide range of AMIPs Virus/Bacteria rapid detection devices, Personal Protective Equipment applications such as SIXW’s Smart Mask™ (see news dated [May 15, 2020](#)), and smart clothing, airborne sensors, breathalyzers, ELISA-based technologies, cartridge/lateral flow designs, and others.

### **Closing remarks**

Sixth Wave is at an exciting stage as the Company rolls out the commercialization of its Affinity™ cannabinoid purification system, IXOS® gold mining extraction technology, and soon plans the rollout of their AMIPs virus rapid detection devices and other products.

The idea of one day being able to potentially use a Sixth Wave MIP sensor to rapidly detect viruses and bacteria pathogens is quite amazing, and if it happens, would be a significant advancement for medical diagnosis.

Trading on a market cap of just C\$30 million, stay tuned for more developments from this fast-moving company.

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# **Tremendous technologies all based around Molecular Imprinted Polymers have investors riding the Sixth Wave**

written by InvestorNews | July 31, 2023

**Sixth Wave continues to achieve outstanding results at detecting COVID-19 as well as the extraction of cannabinoids, gold & lithium**

Innovative methods of detecting and extracting key target materials, such as valuable minerals or even harmful viruses, is a new forefront of nanotechnology.

Today's company is [Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: SIXWF) ("Sixth Wave"). Sixth Wave is a nanotechnology

company that was established in 2013 and has worked on developing commercial products for military and mining applications. For example, SAFE-T® is a legacy product developed for the US Military for explosives detection, developed with internal resources and R&D funds under multiple contracts with the US Army's Combat Capabilities Development Command Armaments Center (ARDEC) and sold to elements of the US Department of Defense and allied forces.

Since that time Sixth Wave has matured the technology and the applications. Today Sixth Wave's technology has applications across multiple sectors such as mining, medical, defense, and life sciences. Sixth Wave's 3 key products are:

- Accelerated Molecular Imprinted Polymers (AMIPs) – For rapid detection of viruses
- Affinity – For cannabinoid extraction
- IXOS – For gold extraction



### [Source](#)

Sixth Wave uses patented Molecular Imprinted Polymers (MIPs) for imprinting, capturing, and releasing substances at the molecular level.

**MIPs use polymer synthesis techniques to create smart materials with high affinity for a target**



Source: [Sixth Wave Innovation website – About MIPs](#)

The MIP technology can detect and/or extract any number of substances as widespread as the COVID-19 virus, cannabinoids, gold, or lithium.

## **Detection of viruses**

Sixth Wave's Accelerated Molecular Imprinted Polymers (AMIPs) is a Rapid Virus Test for the selective identification of Covid-19 that can give easy-to-read results within minutes. AMIPs will allow for high volume, point-of-use screening in public sector, private industry, hospitals, long-term healthcare facilities, and various forms of public transportation.

On June 10, 2021, Sixth Wave [announced](#) a breakthrough that they had successfully detected the UK and South African Variants of SARS-CoV-2, using two independent techniques: a color-based sensor and independently verified on a Quartz Crystal Microbalance (QCM) based AMIP sensor.

The announcement [stated](#): "The flexibility and robustness of the AMIPs platform was demonstrated again. These preliminary results give evidence to the claims that AMIP technology is resistant to loss of efficacy due to virus mutation and new variants. By imprinting and detecting the whole virus AMIPs can be highly resistant to virus mutation."

## **Purification and extraction of cannabinoids in cannabis**

For cannabis producers, Affinity™ streamlines the traditional processing of THC & CBD. Affinity™ uses MIPs designed to capture and extract cannabinoids to ensure the purest end product and the highest yield.

Sixth Wave recently [announced](#) they had commissioned delivery of its first Affinity™ System. It is estimated that the system will be ready for wet testing at AESI in late September and ready for shipment to the Sixth Wave's proving laboratory in Maryland shortly thereafter.

Sixth Wave plans to deliver [the first commercial Affinity™](#)

[System](#) to Oregon-based Green Envy Extracts in Q4, 2021.

### **Extraction of gold from tailings**

Sixth Wave has developed a revolutionary gold-processing system designed for the mining industry. IXOS® is a faster, cleaner and a more cost-effective method of processing and extracting gold with a higher and purer end product than traditional activated carbon processing.

[Announced](#) on May 18, 2021, Sixth Wave executed a non-binding LOI to test Sixth Wave's patented IXOS® purification and extraction polymer on gold bearing tailings samples from the Barry-Hollinger Gold Mine (BHGM) in Eastern Ontario. The news release [stated](#): "It is estimated there are approximately 200,000 tons of tailings on the property which have been indicated to contain up to 16,000 ounces of gold....Sixth Wave will perform a combination of leaching and recovery tests, expected to start in June 2021, baring COVID-19 restrictions. The tailings test protocol could form the foundation for a business model that seeks to identify and recover gold from tailings at other mine sites in the Ontario mining district and throughout the world."

The global implications are enormous given the massive global tailings available from not just gold mines, but other valuable metals.

### **Extraction of lithium from brines such as in the Salton Sea area of California**

Earlier in 2021, Sixth Wave [acquired 100% of Geolithic Corp.](#) (a JV between TriLateral and Sixth Wave). Geolithic was established in 2017 to work on the extraction of lithium from geothermal brines located primarily in the Salton Sea area of California, potentially a huge lithium resource. This has become an important area of interest as it may help the USA and others to

be able to extract vast quantities of lithium, which will be needed for this decade's electric vehicle and energy storage boom.

## **Final remarks**

Sixth Wave has several tremendous technologies all based around its Molecular Imprinted Polymers (MIPs), which can both detect and extract specific target substances.

Key areas of commercialization that are at the beginning are COVID-19 detection, cannabinoids extraction, gold from tailings extraction, and direct lithium extraction. All of these have enormous potential, as well as the potential to expand into related areas.

Sixth Wave Innovation trades on a market cap of just C\$27 million and, in my view, is one of the most exciting listed junior companies on the market today. Be sure to take a deeper look at Sixth Wave.

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# **Sixth Wave's revolutionary gold processing technology, now enters the lithium extraction race**

written by InvestorNews | July 31, 2023

In what seems like a miracle company [Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: ATURF) ("Sixth Wave") has the technology to

detect and/or extract any number of substances as widespread as SARS-CoV-2 (the virus that causes COVID-19), cannabinoids, gold or lithium. The applications for this technology are potentially enormous.

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).

### **Sixth Wave's MIPs can detect COVID-19**

On April 14 Sixth Wave [announced](#) that they were now able to demonstrate [colorimetric detection of SARS-CoV-2](#) utilizing Accelerated Molecularly Imprinted Polymers (AMIPs). The images below best show how it works.

**The image on the left shows the AMIPs™ polymer having been exposed to SARS-CoV-2 (COVID-19) with the fluorescent highlights indicating the presence of the virus (positive). The image on the right shows the AMIPs™ polymer having been exposed to a non-infected sample (negative)**



### **[Source](#)**

Sixth Wave MIPs are also used in cannabis extraction and processing. In April 2021 Sixth Wave [entered a Letter of Intent \(LOI\)](#) with Halucenex Life Sciences Inc. for the separation of compounds such as psilocybin, baeocystin, and others using MIPs used in Sixth Wave's Affinity™ cannabinoid purification system.

### **Sixth Wave's Affinity™ cannabinoid extraction technology for the cannabis industry**





[Source](#): Sixth Wave Innovation website

### **Sixth Wave's technology gaining traction in the extraction of valuable minerals such as gold from mine tailings**

On May 18 Sixth Wave [announced](#) that it has executed a non-binding LOI to test their patented IXOS® purification and extraction polymer on gold bearing tailings samples from the Barry-Hollinger Gold Mine (BHGM) in Eastern Ontario. It is estimated there are approximately 200,000 tons of tailings on the property which have been indicated to contain up to 16,000 ounces of gold. Sixth Wave will perform a combination of leaching and recovery tests, expected to start in June 2021. Sixth Wave [state](#): "The tailings test protocol could form the foundation for a business model that seeks to identify and recover gold from tailings at other mine sites in the Ontario mining district and throughout the world."

### **Sixth Wave's IXOS extraction technology for the gold mining industry and others**



[Source](#): Sixth Wave Innovation website

### **Sixth Wave's technology for the extraction of lithium from geothermal brines**

In April, Sixth Wave [announced](#) the acquisition of 100% of the outstanding common shares of Geolithic Corp. Sixth Wave [stated](#): "Geolithic was established in January of 2017 as a joint venture between TriLateral and Sixth Wave to exploit the latter's technology for the extraction of lithium from geothermal brines located primarily in the Salton Sea area of California. The Salton brines are renowned for their elevated levels of lithium and represent one of the largest untapped sources of lithium in

the world.” This move by Sixth Wave to acquire 100% of Geolithic reflects Sixth Wave’s confidence in both the technology and the opportunity. With lithium demand set to surge [10-11x](#) this decade I certainly see this as a wise strategic move.

### **Closing remarks**

Referring to their nanotechnology, Sixth Wave say they have “the smallest solutions to the world’s largest problem”. That certainly seems very true given their nanotechnology has proven effective at detecting COVID-19.

Whilst it is still very early stages for Sixth Wave Innovation on a market cap of just C\$33 million the potential for this small company is indeed large. If they can go on to successfully commercializing their miracle technology in either of the health or mining sectors then I would expect Sixth Wave would potentially get a whole lot bigger. Stay tuned to this very exciting company in 2021.

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# **Sixth Wave’s Dr. Jon Gluckman talks about the election and the 2nd wave of cannabis investment**

written by InvestorNews | July 31, 2023

In a recent InvestorIntel interview, Tracy Weslosky speaks with Dr. Jon Gluckman, President, CEO and Founder of [Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: ATURF) about what a Biden

presidential win means for an energized and revitalized cannabis sector.

“We’re pretty excited,” said Dr. Gluckman, “that in addition to the Biden win it was pretty clear that the referendums on the state ballots in the U.S. were extremely positive and forward-looking for the future of cannabis and the significant expansion in the United States which is obviously a huge market.”

Asked about what it means, Dr. Gluckman said that Sixth Wave sees it “as a tremendous opportunity for licensed producers to expand their footprints into different spaces and certainly for new equipment requirements which will include Affinity, so we’re stoked.” Affinity™ is Sixth Wave’s cannabinoid purification system.

Discussing the Affinity cannabinoid purification system revenue model, Dr. Gluckman explains that it work on a “total system performance license” basis, where Sixth Wave provides the technology to licensed cannabis producers on a “small profit margin basis”, but then partners to provide upgrades and maintenance in exchange for a portion of the producer’s revenue stream. As Sixth Wave’s Affinity optimization can save a projected 50% of a producer’s production costs, this mutually beneficial arrangement can create a substantial revenue stream for both the producer and Sixth Wave.

Dr. Gluckman explains to Tracy how the application of Sixth Wave’s patented Molecular Imprint Polymers ([#MIPs](#)) technology creates “consistent and high purity” cannabinoid from a producer’s raw material that is essential to creating a commercial product.

Regarding revenue expectations, Dr. Gluckman said that they expect to see revenue through a deal with Green Envy as early as December, and ramping up in the first quarter of 2021. Answering

Tracy's question about investors who missed the "first wave" of cannabis investment, he said that "the very interesting thing now is that what we have seen is that the growers are all growing," and that "as new states come on board they are all going to need new licensed producers." And since there are federal restrictions on interstate movement of cannabis, production will have to be local to each state, requiring multiple production facilities

"We're really looking forward to it and scaling up significantly next year," Dr. Gluckman said.

To watch the full interview on YouTube, [click here](#).

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