

# Revolutionary Aptamer-Based Pathogen Technology from Zentek Unveils Rapid and Inexpensive Pathogen Detection Capabilities

written by InvestorNews | August 3, 2023

A Canadian company and their laboratory partner have developed a low cost simple and much faster way to better detect pathogens causing infections in our bodies. In recent weeks the team found a way to dramatically improve the effectiveness of this technology, which is really a medical breakthrough you won't likely see on the news, at least not just yet. Their technology uses 'aptamer' based diagnostics from a simple saliva test.

## What is an aptamer?

Aptamers are short sequences of artificial DNA, RNA, XNA, or peptide that bind a specific target molecule or family of target molecules. In the case of today's company, they are using single-stranded DNA molecules capable of binding specifically with target proteins on the surface of pathogens such as SARS-CoV-2 to detect if a person has COVID-19 or potentially other pathogens.

## Zentek Ltd.

[Zentek Ltd.](#) (NASDAQ: ZTEK | TSXV: ZEN) ("Zentek") is a certified graphene technology company focused on the research, development and commercialization of graphene-based novel products,

typically using nanotechnology.

Zentek's aptamer-enabled [Pathogen Detection Technology](#) is a low-cost, rapid, saliva testing, scalable technology initially to be used for COVID-19 testing, but can be adapted to detect other pathogens. Zentek has [exclusive worldwide rights to commercialize](#) their COVID-19 antigen testing aptamer-enabled technology. The technology is being developed by Zentek and their technology partners at McMaster University Li Lab, led by Dr. Yingfu Li.

Zentek's collaboration with McMaster University extends beyond its exclusive license and now encompasses all aptamer and DNAzyme uses, including diagnostics, therapeutics, and neutralization agents, not limited solely to SARS-CoV-2 applications.

## Aptamer technology breakthrough, up to 250 times increase

Zentek recently announced a breakthrough in the team's aptamer-enabled technology, [stating](#):

*"Dr. Yingfu Li and his team at the Li Lab have developed a novel aptamer technology that increases the binding affinity of aptamers by up to 250 times. The increased binding affinity enhances the limits of detection for aptamer-based diagnostics. In addition, the enhanced binding affinity may lead to the successful adaptation of these same aptamers for new therapeutic and prophylactic treatments. Binding affinity is a key metric in both diagnostic and therapeutic applications."*

Understandably most people will not understand the implications of what is going on here, so I will spell it out. Effective

Aptamer-based pathogen technology opens up a whole new potential to 'rapidly and cheaply' detect pathogens. In time this can be expanded to potentially detect other markers of disease in the body. Furthermore, it has the potential to more effectively treat diseases. But that's the next chapter, best discussed another time and assuming Zentek continues down that pathway.

Dr. Yingfu Li recently [stated](#):

*"The novel aptamer technology platform developed in my lab at McMaster University is demonstrating a robust increase in binding affinity to every aptamer we have tried so far. Combining this technology with aptamers that have high specificity **has created a very exciting potential for new therapeutics and diagnostics**. The enhanced binding affinity from these new aptamers has led to **consistent and successful in vitro testing** in my lab and the lab of Dr. Leyla Soleymani for diagnostic applications, and more recently, with in vivo testing in the lab of Dr. Matthew Miller for therapeutic applications. These early results are very exciting, and we look forward to future work that applies the technology to other potential therapeutic and diagnostic targets."*

*Note: Bold emphasis by the author.*

**The advantages of Zentek's aptamer technology for detecting Covid-19 or potentially other pathogens**



**The advantages of Zentek's aptamer technology are:**

- **Simplicity & Comfort** – uses saliva rather than a nasal swab reducing aversion to testing and risk of error in the sampling process
- **Accuracy** – electrochemical sensing technology rather than lateral flow allows for sensitivity equivalent to a 36 count RT PCR
- **Mobility** – simple hardware lends itself to easy transport and high throughput, point-of-care testing
- **Speed** – results in under 10 minutes
- **Low Cost** – aptamers can be developed more quickly and cost effectively compared to antibodies allowing us to be highly competitive compared to currently available rapid detection tests now and into the future
- **Scalability** – new aptamers can be developed to detect numerous other pathogens giving our technology the ability to enhance safety and empower businesses, governments and our healthcare providers well beyond COVID

Source: [Zentek website](#)

The potential for aptamer-based disease detection is truly remarkable. There is also potential one day that aptamers can be used to much more precisely target disease treatment or prevention in the body.

Greg Fenton, CEO of Zentek [commented](#):

*“Initially, we were working to develop aptamers for diagnostic purposes.....Dr Li’s initial breakthrough was important for diagnostic purposes, and now early testing points to the potential to create new therapeutics and prophylactics. I can’t emphasize enough how unexpected these results were to our team and how significant this development is if it is confirmed through future testing.”*

For more details, investors can watch the recent Zentek CEO interview [here](#).

Zentek is now at the stage of commercializing their aptamer-enabled technology [stating](#) that they are “commercial prototyping

readiness, and working with [Halteres Associates](#), a world-leading bioscience consultancy, to assist us in our commercialization process.”

## Zentek’s product pipeline

### Graphene Pipeline: What We’re Working On

**zentek**



We know graphene: a key building block for a healthier and more sustainable future

Source: [Zentek company presentation](#)

## Closing remarks

There is no more exciting company than Zentek. Apart from their aptamer technology Zentek has many other applications for their graphene nanotechnology including: [ZENGuard™](#) (a graphene coating applied to PPE to prevent Covid and other infections; also used for air filtration (HVAC) systems), [icephobics](#) (to prevent ice build up on planes etc), ZENArmor (corrosion resistance), [fuel additives](#) (helping reduce carbon emissions), [Graphene-wrapped silicon anodes](#), [conductive inks](#), [intumescent coatings](#), and [anti-inflammatory therapies](#).

Furthermore, Zentek makes their own graphene oxide at their Guelph facility and owns the Albany Graphite Deposit ([planned to be spun out](#)).

Zentek Ltd. trades on a market cap of [C\\$216 million](#). With commercialization of ZENGuard™ underway and Zentek's aptamer technology potentially to follow soon, Zentek is at a great stage to rapidly grow from here. Stay tuned in 2023 to see how Zentek performs and if they can successfully start to monetize their technology.

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## **Zentek CEO Greg Fenton talks about bringing new antimicrobial HVAC filters to market**

written by InvestorNews | August 3, 2023

In this InvestorIntel interview with host Tracy Weslosky, [Zentek Ltd.](#)'s (NASDAQ: ZTEK | TSXV: ZEN) CEO and Director Greg Fenton talks about new opportunities and commercial applications for their unique Zenguard antimicrobial coating.

In the interview, which can also be viewed in full on the InvestorIntel YouTube channel ([click here](#)), Greg tells Tracy "we're focused quite acutely on the HVAC sector right now. We're testing our unique antimicrobial coating on HVAC filters. Our Zenguard coating has been demonstrated to be effective against most airborne pathogens." The interest in applying Zenguard to



HVAC filters came out of a Canadian government call for new technologies to fight Covid-19, and Zentek won phase one of the challenges and is now onto phase two testing in real-world environments.

“If we’re successful,” Greg tells Tracy, “then the Government of Canada becomes an immediate client of ours and they will procure from us for a period of three years minimum.” He continues that the person in charge of the government testing facility “has told us that he has not seen anything even close to what we’ve been able to achieve so far, so we’re very excited about this and think we could have this product in the market later this year.”

To access the full InvestorIntel interview, [click here](#)

Don’t miss other InvestorIntel interviews. Subscribe to the InvestorIntel YouTube channel by [clicking here](#).

### **About Zentek Ltd.**

Zentek is an IP development and commercialization company focused on next-gen healthcare solutions in the areas of prevention, detection, and treatment. Zentek is currently focused on commercializing ZenGUARD™, a patent-pending coating shown to have over 99% antimicrobial activity, including against COVID-19, and the potential to use similar compounds as products against infectious diseases. The Company also has an exclusive agreement to be the global exclusive commercializing partner for a newly developed aptamer-based rapid pathogen detection technology.

To know more about Zentek Ltd., [click here](#)

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# Greg Fenton of Zentek discusses recent news including a NASDAQ listing and a distribution agreement

written by InvestorNews | August 3, 2023

In this InvestorIntel interview with host Tracy Weslosky, [Zentek Ltd.](#) (NASDAQ: ZTEK | TSXV: ZEN) CEO and Director Greg Fenton talks about Zentek's substantial recent newsflow, including listing on NASDAQ and announcing [sales and distribution](#) of ZenGUARD™ coated-masks through Mark's in Canada.

In the interview, which can also be viewed in full on the InvestorIntel YouTube channel ([click here](#)), Greg Fenton talks about other recent announcements including the start of Phase 2 testing of ZenGUARD™ antimicrobial coating on HVAC filters under a contract with Innovation Solutions Canada (ISC). He goes on to say that on the success of Phase 2, Zentek can add the Government of Canada as a client as well as opening up new opportunities for sales and distribution. Greg also provides an update on Zentek's portfolio of patents including the filing of a provisional patent for their [fire-retardant additive](#).

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## **How NASDAQ listed Zentek is a 'wow' company with enormous potential to tap into several multi-billion dollar industries.**

written by InvestorNews | August 3, 2023

Every once in a while investors will come across a 'wow' company. This is a company that just wows you with their performance and their stock price.

For me the 'wow' company of the last year is [Zentek Ltd.](https://www.zentek.com) (NASDAQ: ZTEK | TSXV: ZEN). Just take a look at the stock chart below, showing the stock rising a staggering 9.7x over the past approximately year and a half. The good news for investors is that the recent pullback allows for a better entry price than

when the stock peaked at C\$6.50.

## **Zentek Ltd (TSXV: ZEN) 5 year stock price chart**



Source: [Yahoo Finance](#)

Today I give a brief summary of Zentek for new investors and an update on their progress in 2022.

### **Zentek's business summary**

Zentek [describe](#) themselves as “an IP development and commercialization company focused on next-gen healthcare solutions in the areas of prevention, detection and treatment.” I prefer to think of them as a nanotechnology and graphene company (they were formerly known as ZEN Graphene Solutions) that has expanded into multiple areas of commercialization; particularly into the healthcare sector with a product for prevention, detection and treatment of numerous pathogens.

Areas/products of commercialization for Zentek include:

- [ZenGUARD™](#) – A patent-pending ‘graphene-silver coating’ shown to have [99% antimicrobial activity](#), including against COVID-19. The coating can be used for PPE applications (including nitrile gloves, gowns, footwear coverings and surgical caps) and also in air purifiers. [According to](#) Zentek: “ZenGUARD™-coated masks removed 98.9% more bacteria and 97.8% more virus compared to a typical ASTM Level 3, 3-ply uncoated, resulting in over 99.99% BFE and VFE ratings.” ZenGUARD™ has [Health Canada approval](#) (Medical Device Establishment License, “MDEL”) and [production facilities are being readied for first orders.](#) Zentek is commercializing ZENGuard™ with mask

manufacturer Trebor Rx, but can also work with other manufacturers.

- [Pathogen Detection Technology](#) (aptamer-enabled) – A low cost, rapid, saliva testing, scalable technology to detect numerous pathogens, initially to be used for COVID-19 testing.
- [Antimicrobial therapies](#) – In-vitro testing shows [99.9% effectiveness](#) against bacteria, fungi and viruses.
- **Air conditioner filter coating** – Zentek has experimented with past partners to use graphene oxide coated filters to help remove moisture from the air and make air conditioners up to [75% more energy efficient](#).
- [Icephobic graphene coatings](#) – Potential to significantly increase safety for vehicles such as drones, aircraft, ocean vessels, wind turbines, and other applications where, in cold weather climates, there is the potential for ice to accrete on surfaces. An ‘icephobic’ surface repels ice build up.
- **Others** – Graphene tires, graphene in concrete, [fuel additives](#) (potential to reduce GHG emissions from diesel and bio-diesel fuels by as much as 10%), and graphene for batteries.

## **Zentek’s latest news and progress in 2022**

Zentek announced on [February 18, 2022](#) the development of graphene-wrapped silicon anodes. Zentek CEO Greg Fenton [stated](#): “Not only were the researchers able to demonstrate good performance with laboratory-scale half-cells, the performance was also validated with commercial lithium iron phosphate cathodes suggesting they could be a drop-in solution for enhancing already available battery technologies. We look forward to continuing our support of their research and development to potentially bring this technology to market. The company has begun discussions with a potential industry

partner.”

As [reported](#) on February 28, 2022, Zentek’s Guelph production facility is now fully licensed and permitted for ZenGUARD™ production and substantially all equipment has been received to ramp-up industrial scale capacity. First orders have been received and the ZenGUARD™ international patent is due shortly. As [reported](#) on January 13, Zentek has entered into a binding letter of intent with GMAF Circular Medico ApS to produce and sell ZENGuard™-enhanced GMAF trademarked recyclable surgical masks.

With regards to the Pathogen Detection Technology, Zentek [continues to work to bring the product to market](#) as soon as practicable, which will require having a working prototype prepared, having conducted baseline studies, and having made applications to regulatory bodies.

With regards to Zentek’s icephobic coatings, they are currently [undergoing full flight trials](#) on a specially equipped research aircraft under real world ice-forming weather conditions.

**Zentek’s new manufacturing facility in Guelph, Ontario, Canada is set for commissioning shortly**



Source: [Zentek website](#)

## **Closing remarks**

Zentek really is a ‘wow’ company with enormous potential to tap into several multi-billion dollar industries. Focusing on pathogens (viruses, bacteria, fungi) prevention, detection, and treatment is simply staggering. Then there are multiple other applications for Zentek’s products, the most recent being graphene-wrapped silicon anodes that can potentially be used to



create better EV batteries and the icephobic coatings opportunity.

In terms of commercialization, Zentek is already advancing with ZenGUARD™ in terms of a production facility and orders, with the ZenGUARD™ patent due very soon and production from Zentek's new Guelph facility set to begin very soon.

Finally, Zentek is now getting the exposure it deserves with [a NASDAQ listing](#) that began on March 22, 2022, under the ticker "ZTEK". Not surprisingly the stock [rose 25.93%](#) on March 23.

Zentek has [C\\$32 million](#) in cash, no debt, and looks like being a 'wow' company again in 2022. Stay tuned.

*Disclosure: The author is long Zentek (TSXV: ZEN).*

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## **Dr Jon Gluckman provides an update on Sixth Wave Innovations' pathogen detection technologies**

written by InvestorNews | August 3, 2023

In a recent InvestorIntel interview, Tracy Weslosky spoke with Dr. Jon Gluckman, President and CEO of [Sixth Wave Innovations Inc.](#) (CSE: SIXW | OTCQB: SIXWF) about Sixth Wave's virus detection technology for SARS-CoV-2 and about their [partnership with TraceSafe Inc.](#) for the detection of viruses and pathogens in animals.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Dr. Gluckman said that Sixth Wave's virus detection technology is based on molecular imprinted polymer and "...can detect the COVID-19 virus and all its variants, at levels that are better than immunoassay tests." He went on to highlight the growing instances of disease outbreaks in animals caused by viruses and pathogens that can impact our food supplies. Dr. Gluckman also explained how Sixth Wave is working with TraceSafe to develop a first-of-its-kind solution that can prevent and contain deadly viruses and pathogens in animals and provide real-time updates across the entire food supply chain.

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

### **About Sixth Wave Innovations Inc.**

Sixth Wave is a development stage nanotechnology company with patented technologies that focus on extraction, purification, and detection of target substances at the molecular level using highly specialized Molecularly Imprinted Polymers (MIPs). The Company is in the process of commercializing its, IXOS®, a line of extraction polymers for the gold mining industry.

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, purification, and separation of viruses, biogenic amines and other pathogens, and nutraceuticals for which the Company has products at various stages of development.

To learn more about Sixth Wave Innovations Inc., [click here](#)

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# Greg Fenton on Zentek's approval for Nasdaq listing and the expanding use of its highly effective anti-microbial ZenGUARD™ coating

written by InvestorNews | August 3, 2023

In a recent InvestorIntel interview, Tracy Weslosky spoke with Greg Fenton, CEO and Director of [Zentek Ltd.](#) (TSXV: ZEN) about Zentek's recent [news release](#) on receiving approval to list on the Nasdaq and about [engaging Vimta Labs](#) to begin studies of ZenGUARD™ active ingredient as a potential treatment of infectious skin disease.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Greg Fenton provided an update on Zentek's "unique and innovative" ZenGUARD™ antimicrobial coating which is "proven to be more than 99% effective in reducing the physical spread of the SARS-CoV-2" and other pathogens. He went on to say that Zentek will be publishing the patent application for the ZenGUARD™ antimicrobial coating on March 21, 2022.

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

## About Zentek Ltd.

Zentek is an IP development and commercialization company focused on next-gen healthcare solutions in the areas of

prevention, detection and treatment. Zentek is currently focused on commercializing Zen**GUARD**™, a patent-pending coating shown to have 99% effectiveness in antimicrobial activity reduction, including against the COVID-19 pathogens, and the potential to use similar compounds as products against other infectious diseases. The Company also has an exclusive agreement to be the global commercializing partner for a newly developed rapid aptamer-based pathogen detection technology.

To learn more about Zentek Ltd., [click here](#).

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## **Bristow goes with technology and selects the stock to watch in 2022**

written by InvestorNews | August 3, 2023

**Welcome to 2022!** I'm cautiously optimistic that this will be the year we get to put Covid in the rear-view mirror and get on with life without always waiting for the next shoe to drop (or a new variant to take hold). I'm happy to put 2021 in the history books and anticipate the bright future that could be. In that vein, I'd like to look ahead to what I think could be an exciting story for 2022. Now don't get me wrong, I'm not saying this is my top pick or suggesting it will go up. This is simply my perspective on a company that has a lot going on that could be rewarded by the market this year.

The path of least resistance, after this week's market action,



would be to pick a uranium stock. Between how this group performed in 2021 and even more impressively, the first couple of trading days of 2022, it would certainly make for an easy article to write. I'm also a fan of junior base and precious metal mining companies, especially ones with plenty of results pending, but not today. The future is technology, so my exciting stock for 2022 is a technology company that posted a respectable 35% return in 2021 but is well positioned for 2022. It also happened to evolve out of a junior mining exploration company so it's the best of both worlds.

If you haven't figured out what company I'm talking about yet, it's [Zentek Ltd.](#) (TSXV: ZEN), formerly known as ZEN Graphene Solutions Ltd. There is so much going on at Zentek it's hard to know where to start. The Company currently describes itself as an IP development and commercialization company focused on next-gen healthcare solutions in the areas of prevention, detection and treatment. Zentek is currently focused on commercializing ZENGuard™, a patent-pending coating shown to have 99% antimicrobial activity, including against COVID-19, and the potential to use similar compounds as products against infectious diseases. The Company also has an exclusive agreement to be the global commercializing partner for a newly developed aptamer-based rapid pathogen detection technology. But that's just the tip of the iceberg in my opinion.

The near-term catalyst is all about the antimicrobial coating ZENGuard™, which was developed as a virucidal graphene-oxide ("GO") based compound to be applied as a coating onto fabrics, which included personal protective equipment such as face masks in an effort to increase protection afforded by such products. In September 2021 the Company received [Health Canada approval](#) for the sale of ZENGuard™ coated masks and entered into a binding definitive [license and supply agreement](#) with Trebor Rx

Corp. for the supply of ZENGuard™ to coat face masks and potentially other health care products. To date, Trebor has purchased, and the Company has delivered, quantities of ZENGuard™ coating sufficient for the production of 10,000,000 masks currently done via third parties. However, development is underway of the Company's industrial scale facility to produce ZENGuard™ and to coat materials. The Company anticipates assembly and installation of the industrial scale production equipment to be completed during Q1 2022, at which point production is expected to commence while commissioning, optimization and production ramp-up occurs over the following two to three months. Once this industrial process is in operation, the Company expects the production capacity of ZENGuard™ to increase significantly.

Zentek recently closed a bought deal public offering and a non-brokered private placement for aggregate [proceeds of C\\$33 million](#) to assist in the build out of their facility as well as research and development, acceleration of business growth opportunities and working capital. Other growth opportunities include the development of a new carbon-based nanotechnology-enhanced [icephobic coating](#) to reduce ice accretion. The Company anticipates applications for aircraft, wind turbines, ocean vessels, and building structures to increase safety and efficiency outcomes in ice-forming weather conditions. In late November Zentek announced it had been awarded an R&D test contract through the Innovation Solutions Canada Testing Stream to [test ZENGuard™ coated HVAC filters](#) with interest from 3 different units within the National Research Council of Canada. Other innovations include the [development of a stable diesel fuel additive](#), which increased the performance of diesel fuel by up to 10% in initial testing.

There is an awful lot going on at Zentek so I would encourage you to go check out their [website](#) to learn more because I've

only scratched the surface of this stock to watch in 2022. Granted it's not a small cap with a market cap of roughly \$466 million after the closing of the latest capital raise earlier this week. Nevertheless, there are plenty of near-term catalysts with having their own production facility operational in the next few months and some pretty creative and unique opportunities being developed to propel this Company into the future.

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## **Greg Fenton on the significant medical market interest in Zentek's ZENGuard™ nanotech coatings, plus its new carbon-based icephobic coating**

written by InvestorNews | August 3, 2023

In a recent InvestorIntel interview, Tracy Weslosky spoke with Greg Fenton, CEO and Director of [Zentek Ltd.](#) (TSXV: ZEN) about Zentek's new [icephobic coating](#) to reduce ice accretion on surfaces, and about the significant market interest in their ZENGuard™ coating following its Health Canada approval.

In this InvestorIntel interview, which may also be viewed on YouTube ([click here to subscribe to the InvestorIntel Channel](#)), Greg Fenton said that the company's recent [change of name](#) from ZEN Graphene Solutions Ltd. to Zentek Ltd. reflects its evolution from a mining company to a technology company,

developing intellectual properties. Having recently applied for an up listing to the Nasdaq, Greg said that Zentek is primarily focused on nanotechnology-enabled healthcare solutions, and continues to develop intellectual properties for other industries as well.

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

### **About Zentek Ltd.**

Zentek is a nanotechnology company developing and commercializing next-gen healthcare solutions in the areas of prevention, detection and treatment. Zentek is currently focused on commercializing **ZENGuard™**, a patent-pending coating with 99% antimicrobial activity, including against COVID-19, and the potential to use similar coatings as pharmaceutical products against infectious diseases. The company also has an exclusive agreement to be the global commercializing partner for a newly developed, highly scalable, aptamer-based, rapid pathogen detection technology.

To learn more about Zentek Ltd., [click here](#).

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**XPhyto Therapeutics moving forward from successful prototype testing of saliva**

# virus test

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## Non-invasive test can detect viral RNA in asymptomatic patients

XPhyto Therapeutics Corp. (CSE: XPHY | OTCQB: XPHYF | FSE: 4XT) ("XPhyto") is a next generation bioscience company with a rapid pathogen screening systems division, including a new, non-invasive coronavirus saliva test. This is an important addition to rest of their businesses which includes advanced drug delivery systems (Vektor Pharma) and cannabis investments (Vektor Pharma & Bunker).

XPhyto's core business is drug delivery, diagnostic, and cannabis investment opportunities focused on European markets, especially Germany.



Source: [Company presentation](#)

### XPhyto's rapid pathogen screening systems

XPhyto is focused on developing rapid, low-cost, screening tools for pandemic threats. The company, along with their diagnostic partner 3a-Diagnostics GmbH ("3a"), has recently become better known for their COVID-19 RNA testing. The XPhyto team is developing a rapid, disposable, point-of-screening test to detect COVID-19 viral RNA from patient saliva as well as more traditional nasal and throat swabs. On July 6, 2020, XPhyto [announced](#) successful validation of its working test prototype. The test, as observed and reported by clinicians and scientists in peer reviewed publications, demonstrated a detection limit



capable of identifying viral RNA in the saliva of symptomatic, pre-symptomatic, and asymptomatic patients. Subject to fast track certification by the German government, XPhyto and 3a are targeting Q1 2021 for European regulatory approval and commercial sales.

Being able to detect coronavirus early in patients with no symptoms has been identified as a key factor in halting the spread. A saliva-based test is another huge advantage due to the ease of testing compared to the current nasal swab testing, which can range from uncomfortable to painful.

The technology behind the new test will also be suitable for other types of coronaviruses in the long term. XPhyto and 3a are also in the process of developing rapid screening tests for other pandemic threats, including H1N1 (swine flu) and H5N1 (avian flu), with a specific focus on identifying early pre-symptomatic stages of infection.

### **XPhyto's advanced drug delivery systems**

XPhyto owns Vektor Pharma, a German narcotics manufacturer, importer and researcher. Vektor Pharma is a decade-long leader in design, testing and manufacture of thin film drug delivery systems including transdermal patches, oral dissolvable film (ODF), sub-lingual (oral) strips for the clinical management of pain, and an ODF biosensor delivery platform. Vektor Pharma currently holds numerous narcotics import and manufacturing licenses, including cannabis imports and authorizations related to conventional and cannabis-related prescription medications.

### **XPhyto's cannabis investments**

XPhyto also 100% owns Bunker. Bunker has a unique German cannabis cultivation and extraction license for scientific purposes. Subject to BfArM (the Federal Institute for Drugs and

Medical Devices) security requirements, the license authorizes cultivation and extract of 70 different strains of Cannabis Sativa and Cannabis Indica for scientific purposes.

XPhyto also has an exclusive LOI and standstill agreement for cooperation in the field of development, production, and distribution of new cannabis-infused beverages and products with the famous German brewery Oettinger. Oettinger beer is not only one of the best selling beers in Germany, it is also internationally recognized as one of the largest brewery groups in the world.

**XPhyto Therapeutics Corp. is well-placed in key emerging industries**



Source: [Company presentation](#)

### **Closing remarks**

XPhyto is an innovator in the increasingly important fields of virus detection and drug delivery systems, including the vital area of mass rapid pathogen screening testing. Added to that, it has some exciting cannabis related investments, particularly with Bunker in Germany. XPhyto also has R&D collaborations with the technical University of Munich and the University of Alberta.

For investors, XPhyto Therapeutics Corp. trades on a market cap of C\$165m and the stock is up an impressive 132% in the past year. While a non-invasive COVID-19 saliva test that can detect the virus in both symptomatic and asymptomatic patients would have immediate and obvious benefits, it could also have long-term applicability to other pathogens going forward. Added to XPhyto's carefully curated suite of other diagnostic, drug

delivery and cannabis licenses, it makes it a company to watch.