

# **Early cancer detection in the spotlight in the wake of actor Chadwick Boseman's tragic death**

## **New technology offers hope for early detection and survivability**

The recent passing of Black Panther star Chadwick Boseman at only age 43 from colon cancer has shone the spotlight again on this deadly disease. Many are asking why we cannot detect and cure cancer. Surely if we find it early it can be cured? Cancer is a terrible disease that now kills one in six people globally. In 2017 cancer killed 9.6 million people. The statistic alone is staggering but the sad part is, with early detection many cancers could be treated and cured. The problem is a lack of awareness that results in a lack of early testing.

One company is hoping to change that with their next generation "10 in 1" early stage cancer blood test called Aristotle®.

That company is StageZero Life Sciences Ltd. (TSX: SZLS). StageZero is best known for their early stage cancer testing. In particular their Aristotle® "10 in 1" blood test to detect any of 10 early stage cancers. Using their diagnostic expertise, in 2020 StageZero also successfully began doing COVID-19 testing.

**StageZero Life Sciences is able to screen for cancer and test for COVID-19**

 <p><b>Cancer Doesn't Stop For Anything. Neither do We.</b></p> <p>Our next-generation blood test (Aristotle™) is a panel for the early detection of 10 cancers from a single sample of blood. Aristotle was recently selected for online publication at the 2020 annual meeting of the American Society of Clinical Oncology (ASCO).</p> <p><a href="#">LEARN MORE</a></p> <p>(TSX:SZLS)</p>		 <p><b>COVID-19 Testing Is Now Available</b></p> <p>As a <b>CLIA certified, CAP accredited</b> laboratory, we are uniquely qualified to provide testing during the COVID-19 pandemic. We offer COVID-19 PCR and Antibody testing for employers and organizations through our telehealth platform.</p> <p><a href="#">LEARN MORE</a></p> <p>(TSX:SZLS)</p>
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Source

## **Aristotle® 10 in 1 cancer screening**

Aristotle® is a panel for simultaneously screening for 10 different cancers from a single sample of blood. Aristotle® has been built on StageZero's proprietary mRNA technology platform, which was validated in more than 10,000 patients for the development of the first liquid biopsy for colorectal cancer (ColonSentry®).

Aristotle® is the result of 15 years of development and StageZero believes its test is more accurate and better than standard cancer screening tests. It also has the advantage of screening for ten cancers in one test, compared to competitors' single test/single cancer detection. It is little wonder that StageZero chose the name 'Aristotle' after the Greek philosopher, as it means 'best' in Greek.

StageZero expects to begin commercializing their Aristiotle® test by the end of this year. Examples of the cancers covered by the Aristotle test include colo-rectal (bowel), bladder, prostate, liver, nasopharyngeal, stomach, breast, ovarian, cervical, and endometrial cancers.

**StageZero Life Sciences Aristotle® has very high accuracy testing for 10 cancers in 1 blood test**



Source

Given that Aristotle® is still relatively new, one of the challenges is increasing awareness both among the medical community but also among potential patients to inform them that there is now a new and very effective way to do an early screening for not one, not two, but TEN cancer tests in one simple blood test.

Step by step, the word is beginning to get out about StageZero's revolutionary 10 in 1 cancer screening test. For example, an abstract entitled "Aristotle: A Single Blood Test for Pan Cancer Screening" was selected for online publication at the annual meeting of the American Society of Clinical Oncology ("ASCO").

StageZero has a growing network of partners including those on the telehealth platform such as with 10,000 mobile phlebotomists, physician groups, and small and large businesses such as Mercer. Ironically, COVID-19 has helped accelerate the number of new partners and awareness for StageZero's products.

### **Applying the technology to COVID-19 testing**

In April 2020, in response to the COVID-19 pandemic, StageZero announced that they will offer both the PCR-based nucleic acid tests as well as qualitative antibody testing for COVID-19. Since that time StageZero has initiated COVID-19 testing with both PCR and antibodies, with initial interest received by the company represented by approximately US\$18m+ in revenue. Other StageZero achievements include:

- Beckman Coulter received the EUA from the FDA for its SARS-CoV-2 IgG Antibody Test.
- Partnered with 5 initial groups.
- City of Alpharetta offered StageZero COVID-19 testing to its first responders.
- Partnership with UDo Test connected the Company to a network of 50,000 physicians.

- Mercer VIP Program included StageZero COVID-19 testing and connected the company to numerous employers who have ordered tests. StageZero is now a preferred lab for Mercer.

StageZero has been busy raising capital to support the above recent activities and expansion. In late June StageZero successfully raised C\$4.6m from an equity placement. The funds will be used for hiring staff, purchasing equipment, test reagents, and consumable materials (for COVID-19 Tests and Aristotle®).

### **Closing remarks**

There is little doubt that early screening for cancer can save lives. Even better is if a patient can be tested for 10 cancers all in 1 simple blood test. It makes routine screening ten times more worthwhile and it may just help to save your life, your relative's life, or a celebrity's life.

StageZero is steadily gaining awareness and distribution of their COVID-19 and soon Aristotle® cancer screening test with plans to commercialize Aristotle® by end 2020. The fact that they are also currently providing COVID-19 screening is both boosting revenues and awareness about StageZero. StageZero has potential for revenues to surge in 2020 and beyond as their testing and screening tests potentially become more widely used. The company is cashed up after a June C\$4.6m capital raise.

The current market cap of StageZero is just C\$35m. Analyst price target is C\$0.50, which is well above the current stock price of C\$0.09. StageZero Life Sciences is a very exciting company at a very exciting time in their development. They have huge potential to help society and at the same time be a big winner for early investors. Don't miss this one.

### **Further learning**

- James Howard-Tripp on applying StageZero's cancer diagnostics expertise to COVID-19 testing
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# **XPhyto Therapeutics moving forward from successful prototype testing of saliva virus test**

## **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**



**BUILDING A NEXT GENERATION BIOSCIENCE COMPANY: *Intelligent Capital & Human Resources***

*XPhyto is set to leverage its strategic alliances and acquisitions, building the right team at the right time.*

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**WORLD-CLASS DRUG DELIVERY EXPERTISE**  
 A future investment in a high margin, market-leading technology that is safe for patients;
- 
**EXTENSIVE GLOBAL SUPPLY NETWORKS**  
 Premium quality products with no capital investment in cultivation infrastructure;
- 
**DISRUPTIVE DIAGNOSTIC PIPELINE**  
 Rapid, low-cost screening tools for pandemic threats;
- 
**EFFICIENT M&A TRANSACTIONS**  
 Prudent management committed to building shareholder value;
- 
**UNIQUE GERMAN R&D LICENCES**  
 First-mover advantage and industry leadership;
- 
**R&D COLLABORATIONS**  
 Access to world-class facilities with limited capital investment;

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.



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# Rapid and accurate testing the key to a return to normalcy

**And here are three companies working on it.**

Imagine a global pandemic caused by a new virus. Apparently it has been around for 6, 8 or 10 months and may or may not have come from China (depending on which expert is talking on any given day).

The symptoms are multiple (and variable and inconsistent between infected people, or so it seems) and the test for it is a long nasal swab inserted into your body that is uncomfortable at best but usually quite painful.

Then imagine that the test results (none of which may be accurate) take 2-6 days and may come back as:

- Positive
- Negative
- False Positive
- False Negative

Oh, and apparently, there is also a blood test for antibodies which would tell you if you had the virus... but actually there are many (unreliable) blood tests that may produce the same range of four results as above.

Exhausted yet? We all are, as the current pandemic has set the world on its ear, crippled the global economy and created an

undeniable environment of fear.

However, there are glimmers of hope for accurate testing which would allow the world to get back to an almost pre-virus life. Instead of waiting days for suspect results, companies are focusing on technology using quick, accurate, inexpensive and technologically proven procedures that do not require highly trained staff or expensive equipment.

Three Canadian public companies are at the forefront of developing these new, non-invasive, technology driven coronavirus tests that will be accurate, eliminate (mostly) the need for that sketchy nasal swab, and provide nearly instant, accurate results.

### **Sixth Wave Innovations Inc. (CSE: SIXW | OTCQB: ATURF)**

The newest entrant in the public markets, Sixth Wave began trading in February 2020 after a previous merger with another public company and subsequent financings, etc. Current market capitalization is approximately C\$26 million.



Sixth Wave is a development stage nanotechnology company with patented technologies that focus on extraction and detection of target substances at the molecular level using highly specialized Accelerated Molecularly Imprinted Polymers (AMIPs). Since every substance has a unique size, shape and chemical properties, these attributes can be utilized at the individual molecule level to create highly efficient adsorption/detection media to solve problems that cannot be solved with conventional means.

What does this mean? In simple terms, they can detect anything at the molecular level and this technology has already been successfully deployed in both the cannabis and gold mining industries. In practical terms, by using AMIPs, Six Wave's technology could be used to detect COVID-19 in airborne, water

and wastewater environments. Further, successful development of their technology could also be rolled out to provide accurate, almost immediate testing for the coronavirus in individuals.

Sixth Wave (along with its partners) recently received approval from the Natural Sciences and Engineering Research Council of Canada to advance virus detection technology testing using AMIP. Successful testing could optimistically be completed before year-end with an available product possible for market in early 2021. A publicly available product could be as simple as a face mask that changes colour if positive for COVID-19.

### **Sona Nanotech Inc. (CSE: SONA | OTCQB: SNANF)**

Sona Nanotech is a well-established public company whose technology development of gold nanorods started back in 2013. The company went public in 2018 and has a current market capitalization of approximately C\$677 million, although this has jumped dramatically since February 2020 as a result of the coronavirus pandemic.



Gold nanorods have multiple uses, but the potential for providing near-instant results has very much excited the market. Using lateral flow assay technology testing (comparable to a home pregnancy test), a positive or negative test for coronavirus can be determined without the need for specialist lab equipment or operators. In April 2020, Sona tested a working prototype of the test in a hospital laboratory environment with live, COVID-19 patient samples, achieving positive results. Further testing is underway and of course government approvals will be required

The company's analytical test still requires the dreaded nasal swab for the evaluation source material, but results should be

more accurate and available in minutes.

**XPhyto Therapeutics Corp. (CSE: XPHY | OTC: XPHYF | FSE: 4XT)**

Originally created for the cannabis industry, Xphyto Therapeutics has subsidiaries in Alberta and in Germany. Established in late 2017, the company went public in mid-2019 and has a current market capitalization of approximately C\$190 million. The company had a strong share price prior to the coronavirus pandemic due to its other products, but application of related technology has caught the market's attention.



Since starting in the cannabis space, the company has branched out in Germany with strategic acquisitions/development agreements in diagnostics and therapeutic films. In part due to the arrival of the coronavirus pandemic, the company first initiated an infectious diseases program in February 2020 which was directly transferable to developing a low-cost, "real time" oral pathogen screening platform for COVID-19 in March 2020. By July, the company had confirmed successful function of its proprietary COVID-19 RNA probes and its universal coronavirus RNA probes in prototype lateral flow assay testing. Visual confirmation of test results was observed in five to seven minutes.

Short of an actual vaccine, rapid and accurate testing continues to be the Holy Grail in the world-wide response to COVID-19 and the key to a return to economic and social normalcy. These are among the companies to watch with innovative testing technologies.