



#### About Us

Based in Ontario, Canada, CardioGenics Holdings Inc. (CGNH.OB) is engaged in the development and marketing of a point of care testing device and several test products. The testing device provides lab-quality results in 15 minutes, is less expensive, easier to use, network ready, provides faster results, and with large advantages over competing products on the market today.

n the United States alone, people go to the emergency room 8.5 million times a year because of chest pain. Out of these emergency room visits, only about 1 million of these cases results in a confirmed myocardial infarction event (heart attack or MI). As a result, approximately \$31 billion is spent each year in hospitalizing Chest pain patients including those who are not actually experiencing a heart attack.

In the confirmed myocardial infarction events, acting fast and beginning treatment as quickly as possible reduces the damage to the heart muscle while significantly increasing the long term survival and improving the patient's quality of life. Many patients continue to lead a healthy life after their first heart attack.

Clinical guidelines from the American Heart Association (AHA) and American College of Cardiology (ACC), all emphasize the importance of cardiac markers in the management of potential heart attacks. Many patients who present to the emergency room have vital signs that are not consistent with a heart attack (also with a negative 12 lead EKG and normal oxygen levels). When a heart attack occurs, cardiac biomarkers such as Troponins are released into the blood stream by dying heart muscles. Cardiac troponin I and troponin T are the most specific and sensitive laboratory markers of myocardial cell injury. Testing for these markers establishes the diagnosis of a heart attack and detects even mild heart damage. Today, serial troponin tests over a 24 hour period are the gold standard in definitively ruling in or out a heart attack. Recommendations by the AHA/ACC for the optimum turn-aroundtimes for cardiac marker results is 30-60 minutes. This turn-around-time is not currently met by central testing laboratories. Average time to result in most USA hospitals is about 2.8 hours.

Based in Ontario, Canada, CardioGenics is engaged in the development and marketing of a point of care (POC) testing device, the QL CareTM Analayzer. The QLCA is less expensive, easier to use, network ready, quicker and offers lab-quality testing results. This represents a large advantage over competing commercial products on the market today. The QL Care™ Analyzer is a point-of-care (POC) immunoassay analyzer which uses proprietary technology to provide quantitative test results from non-metered blood samples when added to a pre-loaded disposable, proprietary test cartridge in less than 15 minutes. The QL Care™ Analyzer has been developed to provide the sensitivity of testing that is offered by the large laboratory-based test analyzers.

The initial test to be launched will be a Troponin I (TnI) test, a test which detects the existence of the preferred cardiac biomarker in the bloodstream. The company is also developing a test for Plasminogen Activator Inhibitor Type-1 (PAI-1). This test will be used to identify the MI patients who are most likely to respond to the clot busting drugs that break up the clot in patients with an active MI (heart attack). The company is also developing two heart failure tests, to define the increased risk of death in patients suffering heart failure (HF) so that the appropriate therapy can be administered when the HF patient is first identified, as well as predict the response of HF patients to routinely administer drugs, thereby minimizing the trial and error methods now used by doctors.

Finally the company also supplies some of the largest companies in the world with their proprietary silver-plated magnetic beads (paramagnetic particles), a key component and key contributor to the level of sensitivity yielded by immunoassays on clinical laboratory analyzers.

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In many acute healthcare events. decisions are made to begin drug treatment or an interventional procedure based on the physical and vital sign assessments while awaiting confirmatory laboratory test results. Many times, these decisions are made at great risk to the patient and at a tremendous cost to the overall healthcare system.

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## Management

Yahia Gawad, MB. Ch.B., MD., MSc.
James A. Essex, CA, MBA
Chief Financial Officer
Ms. Linda J. Sterling, F. Inst. L.C.O.
Corporate Secretary/Director
Mr. Neil Tabatznik
Acting Chairman/Director
Prof. Robert Roberts, MD Scientific advisory Board

Prof. William Kostuk, MD Clinical advisory Board

52 Week Low	\$0.11
52 Week High	\$0.40

Stock Symbol	CGNH.OB
Shares Outstanding	~56,000,000



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#### The QL Caret Analyzer

All of the company's tests are being developed as dedicated tests to be analyzed on the company's QL CareTM Analyzer (QLCA). The QLCA uses a pre-loaded disposable test cartridge. A non-metered whole blood sample is added to the cartridge to obtain a quantitative test result, which is then printed and archived in 15 minutes. The QLCA employs chemical light generation or chemiluminescence (CL), the same technology used in medical labs analyzers. The device uses a patented automated electronic process to trigger CL, which enhances light collection, speeds up marker binding and increases sensitivity. With 6 easy steps, quantitative testing results are generated within 15 minutes.

# Troponin I (tnl) test

When a heart attack has occurred, cardiac biomarkers such as Tn are released into the bloodstream by dying heart muscles. Cardiac troponin I and troponin T are the most specific and sensitive laboratory markers of myocardial cell injury. They are used to establish the diagnosis of a heart attack and to detect a mild heart attack as opposed to severe injury and death to heart muscle. The company is completing the development of a point-of-care, proprietary troponin immunoassay which will be used with the QLCA to provide quantitative results of whether troponin is in a blood sample within 15 minutes from the start of testing.

## Plasminogen Activator Inhibitor type-1 (PAI-1) test

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The company is developing a POC test to detect elevated levels of active PAI-1 in the bloodstream. PAI-1 is an inhibitor of fibrinolysis, the physiological process that degrades blood clots. Elevated levels of PAI-1 in a variety of clinical situations are associated with increased risk of adverse cardiovascular events. Forty percent of all patients do not respond to tPA (tissue plasminogen activator), a clot buster used as the first line of therapy for MI patients. People with elevated levels of active PAI-1 typically do not respond well to the tPA, a fact recognized in most cases after permanent damage (referred to as the golden hour) has already taken place. Patients that present to a healthcare facility with an EKG-confirmed MI with the elevated levels of PAI-1 are typically candidates for interventional procedures as opposed to clot busting drugs.

## Heart Failure risk Stratification (HFRS) test

The company is developing a proprietary test, the Heart Failure Risk Stratification or HFRS test to stratify the risk of near term death in patients with heart failure, thus permitting the initiation of appropriate therapy at an early stage. Over the last decade, brain natriuretic peptides (BNPs) have been shown to be particularly useful in confirming or refuting the diagnosis of HF as well as stratifying long-term risk profiles. However, by themselves, they lack the accuracy needed for stratifying diastolic heart failure, which represent 30% of heart failure

## Heart Failure Genomics risk (HFGR)

The company is developing a proprietary HFGR test that predicts the response of heart failure patients to routinely administer drugs, thereby minimizing the trial and error method currently used by doctors. The test aims to be at the forefront of personalized healthcare to determine which drugs are best suited for each HF patient.

## Paramagnetic Beads

The company supplies some of the largest companies in the world with their proprietary silver-plated magnetic beads (paramagnetic particles), a key component and key contributor to the level of sensitivity yielded by immunoassays on clinical laboratory analyzers.





