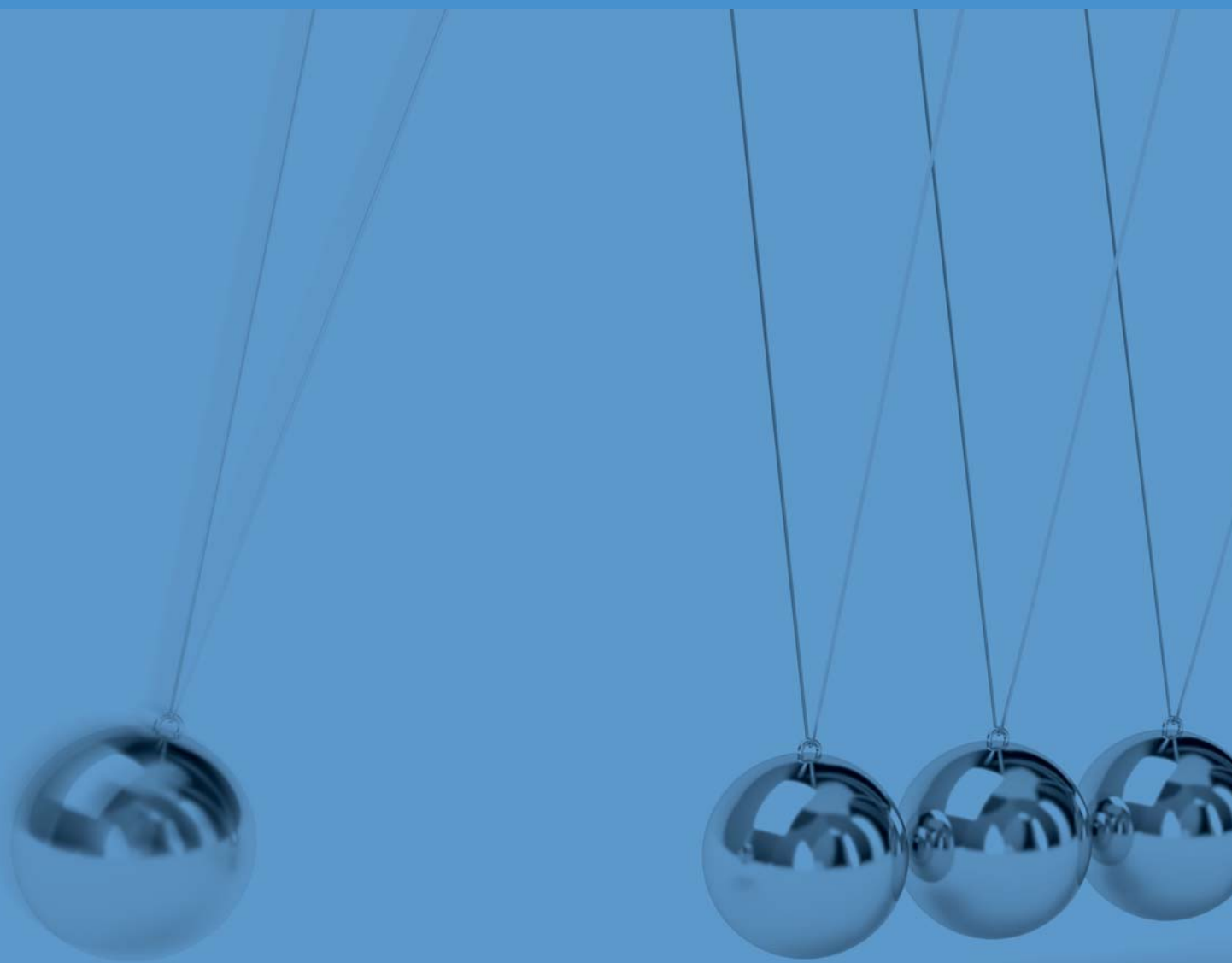


# gaining momentum



Response Biomedical Corporation  
2009 Annual Review

Response Biomedical Corporation develops, manufactures and sells rapid point-of-care (POC) diagnostic tests for use with its proprietary RAMP® (Rapid Analyte Measurement Platform) system for clinical and environmental applications. RAMP sets a new performance standard in rapid diagnostic testing by providing lab-quality test results in minutes, making it ideally suited for point-of-care and lab use. RAMP tests are distributed worldwide for cardiovascular disorders, infectious diseases, biodefense and environmental virus detection by our partners, Roche Diagnostics, 3M Health Care and Shionogi & Co. Ltd., and through independent distributors. The RAMP system has potential to be adapted to more than 250 medical and non-medical tests currently performed in laboratories.

Response Biomedical is a publicly traded company listed on the Toronto Stock Exchange, symbol RBM, and quoted on the OTC Bulletin Board, symbol RPBIF.

To expand strategic alliances. To create new applications.  
To unlock further global markets. To build leadership

enabling physicians  
to save lives and improve  
patient outcomes



**Our Mission.** Response Biomedical is an innovative company, demonstrating success in developing and manufacturing novel, immuno-diagnostic products to address unmet market needs.

## 2009 Highlights

### Financial

- Increased revenue approximately 70%, to a record \$9.9 million
- Completed \$12.65 million equity financing

### Operational

- Launched cardiovascular product line in the U.S. with Roche Diagnostics
- Launched respiratory syncytial virus (RSV) test in the U. S. with 3M Health Care
- Completed development phase for next-generation Troponin I assay for cardiovascular product line with Roche Diagnostics
- Completed feasibility study for a point-of-care tuberculosis test for the Geneva-based Foundation for Innovative New Diagnostics
- Received U.S. Food and Drug Administration (FDA) clearance to add H1N1 virus analytical reactivity information to 3M Flu A+B test kit labeling

## 2010 Objectives

### Financial

- Achieve positive cash flow by the fourth quarter of 2010
- Continue to increase revenues
- Ensure adequate capital to meet corporate objectives

### Operational

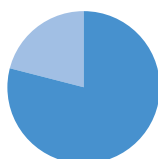
- Submit FDA 510(k) application for Clinical Laboratory Improvement Amendments (CLIA)-Waiver for our RAMP® NT-proBNP Assay
- Complete clinical trial for next-generation Troponin I assay
- Form new alliances with clinical diagnostic partners for new RAMP tests and applications
- Finalize pending assay development programs with key partners
- Broaden clinical products distribution in Asia and other key territories internationally

## Revenues Growing

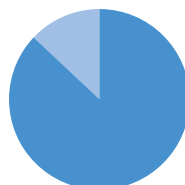
2007 Total Revenues  
\$4.084 million



2008 Total Revenues  
\$5.876 million



2009 Total Revenues  
\$9.946 million



■ All other  
■ Clinical



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Our goal is to be the leading provider of point-of-care diagnostics worldwide.

## Letter to Shareholders

Response Biomedical reached several important milestones in 2009. The Company continued to benefit from rising global demand for and a heightened awareness of its RAMP® rapid point-of-care diagnostic products.

We generated record revenues and improved financial margins following the Roche launch in the United States of our family of RAMP cardiovascular tests, under the Cardiac 200 brand, and an additional infectious disease test, under the 3M™ Rapid Detection Brand. We also completed a feasibility study for a point-of-care tuberculosis test and the development for a next-generation Troponin I cardiac test, which will soon begin clinical trials.

Our performance in 2009 validates our commercialization strategies for an increasingly broad range of RAMP tests. It will take time to establish significant market share for those tests; however, our industry-leading partners and international distributors will continue to exploit RAMP's competitive advantages. Among those advantages are outstanding clinical and analytical results that lead to earlier diagnosis, better treatment and lower health-care costs. On the back of those benefits we anticipate continued robust revenue growth in 2010 and target positive cash flow by late 2010.

### **Record revenues on rising clinical product sales**

Revenues in 2009 reached a record \$9.9 million, an approximate 70% increase over 2008. Clinical products provided the majority of this revenue, with sales of our RAMP Readers and assays increasing 85.3%, to \$6.8 million. Non-clinical product sales rose 9% to \$1.3 million, with contract service revenues from collaborative research arrangements rising 84% to \$1.8 million. Operating expenses fell 22.6%, to \$10.6 million, which, together with higher revenues, reduced our net loss to \$9.5 million (\$0.04 per share), from \$13.7 million (\$0.10 per share) a year earlier.

Our gross margin for 2009 was 3%, compared with negative 7% in 2008; or a 1000 basis points improvement. While margins will continue to fluctuate over the near term, we will begin to see improvement in the year ahead as a result of rising sales and increased production in our state-of-the-art manufacturing facility. Our ongoing mix shift, to recurring sales of higher-margin RAMP assays from lower-margin RAMP Readers will also improve our profitability.

### **Capital market support strengthens**

Until we achieve greater revenues from product sales, we must obtain additional funding and we access capital when prudent and available. In May 2009, we topped up our treasury with a \$12.65 million equity financing. The over-subscribed public offering was led by a Canadian institutional investor and, for the first time, attracted key institutions from the United States and Europe. Despite this support, we believe that our market capitalization has yet to fairly reflect the underlying value of our business and that we will be required to pursue additional funding.

Our cash and cash equivalents were \$5.1 million at year-end, with working capital of \$7 million.

### **Product commercialization yields robust international growth**

We made gratifying progress with the ongoing rollout of our cardiac and infectious diseases tests in North American and international markets in 2009. In the United States, Roche Diagnostics, the world's leader in clinical diagnostics, launched our line of RAMP cardiac tests in April 2009. We developed

Our revenues increased 69% to a record \$9.9 million in 2009. And we expect continued strong growth in 2010 as our clinical products gain market share.

and commercialized the NT-proBNP assay under license from Roche Diagnostics and by year-end, Roche Diagnostics had expanded its sales efforts to generate the demand for all of our RAMP cardiac tests.

Also, in 2009, 3M Health Care had its first full year of sales of the 3M™ Rapid Detection Flu A+B test kit. The global outbreak in 2009 of the H1N1 influenza virus, a form of influenza A, heightened awareness of and demand for rapid point-of-care diagnostic influenza tests. We, therefore, obtained FDA clearance to include analytical reactivity information for a strain of the H1N1 virus in 3M's influenza test kit labeling. We also worked with 3M to develop an RSV test that was launched in October 2009. RSV is an upper respiratory disease that affects most children in their first two years of life. It is also common in the elderly and is often difficult to distinguish from influenza.

Elsewhere, sales by Shionogi & Co. of our RAMP BNP heart failure tests in Japan again grew steadily. We also expanded aggressively in international markets through the use of independent distributors. This approach was especially successful in China, where our distributor, O&D Biotech Co., Ltd., generated a significant portion of our international revenues in 2009 from co-branded RAMP cardiac products.

#### **Product development pipeline remains active**

In 2009, we completed the development of a next-generation Troponin I assay in partnership with Roche Diagnostics. We will complete the clinical trials for that assay in 2010 and file a 510(k) submission for the U.S. FDA. Troponin I is a common diagnostic marker for heart attacks. Our RAMP assay for that marker holds considerable promise for strengthening the commercial success of our cardiovascular product line.

We are also optimistic that the Foundation for Innovative New Diagnostics (FIND)—a Swiss non-profit organization whose donors include the Bill and Melinda Gates Foundation, the European Union and the government of the Netherlands—will proceed with the next step

towards full-scale development of a RAMP tuberculosis test in 2010. We completed feasibility work on such a test for FIND in late 2009, and FIND is evaluating our data.

Our long-term focus continues to be on achieving market leadership for the RAMP system. We have 13 tests available for clinical and environmental testing applications, but our proprietary technology has the potential to be adapted to more than clinical and non-clinical point-of-care tests. We are seeking new partners with interests in clinical diagnostic applications beyond infectious diseases and cardiac markers to help us develop RAMP's full potential.

**Positive cash flow on the horizon**

We expect robust revenue growth in 2010 as we build market share internationally. In the United States, Roche Diagnostics is beginning to make inroads in the lucrative cardiac care market and the expanded capabilities of 3M's infectious diseases platform should afford that firm continued growth in 2010. In China, we recently added a second distributor, Guangzhou Wondfo Biotech Co., Ltd., to better facilitate the distribution of our products in that nation's large and growing market. We are also working to establish a presence in further markets abroad, including in India and in Europe and the Middle East. We believe that new partners or distributors can help us to capitalize on attractive growth opportunities in these territories.

In 2010, we will diligently pursue our business plan, which contemplates being cash flow positive in the fourth quarter of 2010. In the short term, however, we expect that our quarterly revenue will remain variable as our product mix evolves to include a higher proportion of recurring sales of RAMP assays.

I welcome new shareholders and also thank our current shareholders for your confidence and trust. I also thank our employees, partners and distributors for their contributions to our growth and success in 2009.



Sincerely,

A handwritten signature in blue ink that reads "S. Wayne Kay".

S. Wayne Kay  
Chief Executive Officer

April 7, 2010

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Roche Diagnostics  
launched our line of RAMP  
cardiac tests in the United  
States in 2009.

## Technology Review

The RAMP system provides healthcare professionals at the point-of-care with lab-quality diagnostic blood test results in less than 20 minutes. By producing accurate results faster than a centralized laboratory, RAMP has the capacity to speed point-of-care diagnosis, reduce the number of unnecessary diagnostic procedures and improve patient care.

Our platform technology can potentially be adapted to more than 250 medical and non-medical tests currently performed exclusively in laboratories. This makes RAMP ideally suited for use worldwide in physicians' offices, medical clinics and hospital emergency departments as well as in laboratories. RAMP also has numerous applications in public health and safety.

RAMP diagnostic tests are available for clinical and environmental applications in four markets:

- Cardiovascular disorders
- Infectious diseases
- Biodefense
- Environmental virus detection

### How RAMP® Works

The RAMP system consists of a portable scanning fluorescence analyzer and single-use, disposable test cartridges. The system incorporates self-diagnostics and internal electronic and reagent quality assurance checks to mitigate the risk of error. RAMP ensures optimal instrument performance through internal quality tests on start-up and at specified intervals.

The RAMP Internal Standard Zone confirms correct operator technique and cartridge performance for every test. If errors or miscues occur, the RAMP Reader automatically displays error codes or messages and will not report an invalid result. The Internal Standard Zone also functions as an internal test calibrator to compensate for assay variables and provide increased assay accuracy. These features ensure robust system performance and increase user confidence for diagnostic and critical response decision making.

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### Our State-of-the-Art Platform

In 2008, we introduced our RAMP 200 Reader to the clinical marketplace. The RAMP 200 was and is the first in its class to allow independent and simultaneous performance of up to six independent assays with high throughput of 18-36 tests per hour with the three module unit.

For the clinician, the RAMP 200 provides more flexibility to define the tests required for optimal patient care without the need to wait for sequential analyses. The Reader frees clinicians from having to use predefined panels that may include clinically unnecessary and non-reimbursable tests.

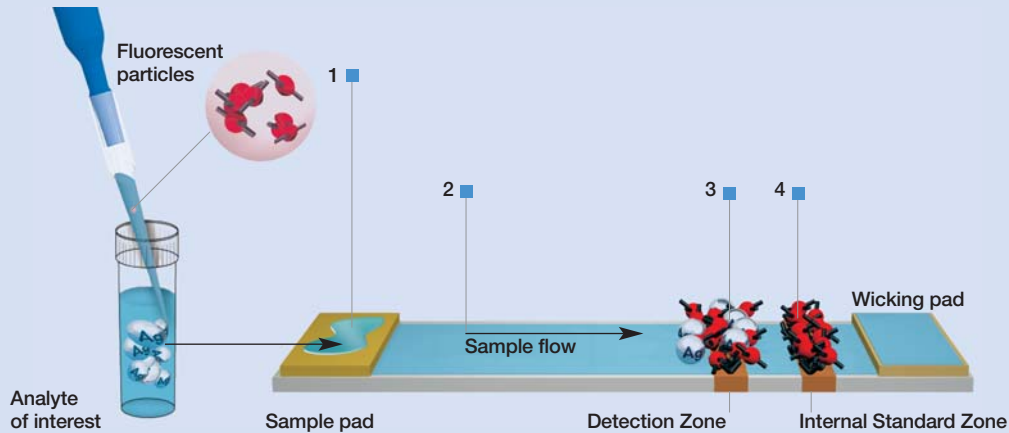
For the hospital testing environment, the RAMP 200 Reader offers the remote definition of compliance features, remote access to data stored on the instrument and the flexibility to ensure regulatory and accreditation compliance in diverse locales. Increased connectivity allowing results to be downloaded directly to the patient's electronic patient files and to the hospital billing information system were features desired by our partners and end users in the field.



*RAMP 200  
Reader Configurations*

## Test Principle

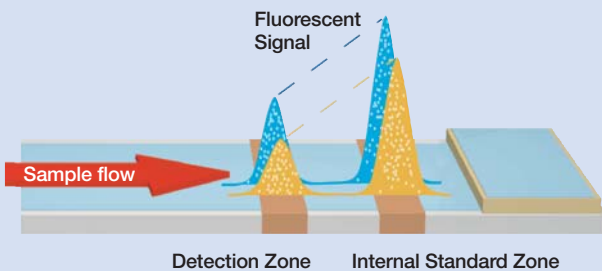
1. Specific antibodies attached to fluorescent-dyed latex particles bind to the analyte of interest
2. The fluid sample is then transported through the strip by capillary action
3. Detection Zone: Latex particles bound to analyte are captured
4. Internal Standard Zone: Unbound latex is captured and used as an internal calibrator



## The RAMP Ratio

RAMP measures fluorescence at the Detection and Internal Standard Zones. Replicates of standards tested in the RAMP Assay show that even extreme differences at the Detection Zone can be corrected by use of the RAMP Ratio. Replicates with higher levels at the Detection Zone also show higher levels of fluorescence measured at the Internal Standard Zone. The RAMP Ratio calculated between these two zones corrects for test-to-test variations. Without the Ratio, fluorescence at the Detection Zone would be measured alone, leading to extremely variable results. This makes RAMP more accurate than other tests.

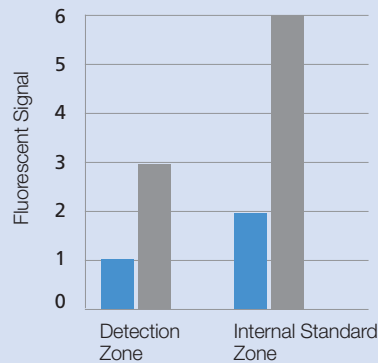
**Exaggerated Variability Range**  
Repeated measurements on similar samples



### Sources of variability

- Operator
- Environmental conditions
- Sample volume applied to strip
- Sample viscosity

### Relative Area Under Curve



Ratio between Zones

$$2:1 = 6:3$$

Variable measurements,  
same results

The market continues to embrace RAMP's unique competitive advantage in quantitative point-of-care testing.



## Cardiovascular Product Line

### Heart Failure

#### Market Potential

Heart failure affects millions of people worldwide and is one of the most prevalent and costly cardiac disorders. According to the American Heart Association, nearly 5.7 million people in North America have the disease, with some 670,000 new cases diagnosed each year. The estimated cost of heart failure in the United States for 2009 is \$37 billion.

Healthcare facilities have two primary goals for dealing with cardiovascular disease: increase the speed of diagnosis and improve diagnostic accuracy by distinguishing heart failure from non-cardiac conditions. Meeting these goals allows hospitals to reduce the numbers of patients undergoing expensive and unnecessary diagnostic procedures.

#### RAMP opportunity

The conventional diagnosis and assessment of heart failure involves physical examinations and chest X-rays. These methods, however, are often inconclusive, making accurate diagnoses difficult and time-consuming.

Blood tests for the presence of NT-proBNP and BNP peptides are widely recognized as key in diagnosing heart failure. Testing for NT-proBNP in particular has shown the potential to significantly reduce the healthcare costs associated with the diagnosis and management of congestive heart failure patients. The market potential for these blood tests approaches US\$1.0 billion annually.

Response Biomedical has commercialized a RAMP NT-proBNP test under license from Roche Diagnostics. Roche is also Response Biomedical's global partner for commercialization of this product and the cardiovascular product line developed by the Company. The NT-proBNP test was launched in the United States in 2009 and is commercially available in other countries through distributors, including O&D Biotech Co. Ltd. and Guangzhou Wondfo Biotech Co. Ltd. in China. We also have a partnership with Shionogi and Co. Ltd., a Japanese pharmaceutical company, and sell a BNP marker test under the trademark SHIONOSPOT® BNP. That test is the only point-of-care BNP test in the Japanese market.

RAMP whole-blood assays for NT-proBNP and BNP can rule out acute heart failure at accuracy levels comparable to laboratory analyzers. And with results available in 15 minutes, the assays allow for the rapid initiation of appropriate patient treatment.

#### 2009 Progress and Achievements

- Launched NT-proBNP in North America with Roche Diagnostics

#### 2010 Priorities and Opportunities

- Apply for U.S. FDA 510(k) CLIA-Waiver for NT-proBNP

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China generated a significant portion of our international revenues in 2009, a trend we expect to continue in 2010.

## Acute Myocardial Infarction

### Market potential

Acute myocardial infarction, commonly known as a heart attack, is a leading cause of death globally. In the U.S. alone, hospital cardiac care units admit approximately 1.5 million people annually for serious chest pain, often a warning sign of heart attack. Yet only 30% of these patients receive a diagnosis of threatened or confirmed heart attack.

### RAMP opportunity

For those who suffer a heart attack, rapid diagnosis and proper medical attention are critical to achieving favourable outcomes. Detection of cardiac markers released into the blood following a heart attack are key in making an accurate diagnosis. Myoglobin, Troponin I and CK-MB are three of the most commonly utilized diagnostic markers. Current international best practice guidelines recommend rapid assessment of cardiac troponins as definitive diagnostics for acute myocardial infarction.

The RAMP cardiac marker tests accurately detect each of the key markers faster than a traditional lab analysis. We distribute these tests globally.

### 2009 Progress and Achievements

- Launched cardiovascular product line in North America with Roche Diagnostics

### 2010 Priorities and Opportunities:

- Complete clinical trial for next-generation Troponin I assay

## Infectious Diseases Product Line

Most conventional methods of infectious disease diagnosis are time and labour intensive. Lab testing requires the culturing of suspect viruses or bacteria. This can take 24 hours or longer and prohibits immediate therapeutic intervention and early treatment.

RAMP's clinical infectious disease testing has the potential to improve patient outcomes. Physicians are able to make accurate medical decisions in approximately 15 minutes from initiating the test.

### Partnership with 3M Health Care

We entered into a strategic alliance with 3M Health Care in 2006 to co-develop an infectious diseases line of products and to capture a sizeable market share for these products.

Our first product was the 3M™ Rapid Detection Flu A+B Test, which was launched in 2008. The global outbreak in 2009 of the H1N1 influenza virus, a form of influenza A, heightened awareness of and demand for rapid point-of-care diagnostic influenza tests. We, therefore, obtained a Special 510(k) U.S. FDA clearance to include analytical reactivity information for a strain of the 2009 H1N1 virus in 3M's test kit labeling.

We continued our efforts with 3M Health Care in 2009 to penetrate the U.S. market with our rapid point-of-care influenza A+B test. We also worked with 3M to bring a new test to market for respiratory syncytial virus (RSV), the 3M™ Rapid Detection RSV Test.

RSV causes cold-like symptoms in most people, but can cause serious illness in infants. Because symptoms of RSV are often confused with influenza, developing a separate RSV test for the 3M Rapid Detection platform was a priority for us and for 3M in 2009. Most infants who suffer serious complications from RSV are under six months old. RSV is also the most common cause of bronchiolitis and pneumonia in children under 12 months old.

## Influenza

### Market potential

According to the World Health Organization, annual influenza epidemics are thought to result in between three and five million cases of severe illness and between 250,000 and 500,000 deaths every year around the world. Most deaths currently associated with influenza in industrialized countries occur among the elderly over 65 years of age.

Our test marketed by our partner, 3M Health Care, for influenza, is the 3M™ Rapid Detection Flu A+B Test



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3M Health Care launched an RSV test in 2009 and the 3M Rapid Detection Flu A+B test kit had its first full year of sales.

# We continue to explore the potential for new market opportunities outside the United States.

## Respiratory Syncytial Virus (RSV)

In the United States alone, RSV is responsible for an estimated 73,400 to 126,300 hospitalizations annually for bronchiolitis and pneumonia in children under a year old. In children hospitalized with RSV infection, it is believed to be the most common viral cause of death in those under five years old, and in particular children under a year old. RSV is also the major viral cause of nosocomial illness in children already hospitalized for other reasons—half of all infants become infected with that illness during their first year of life, with almost all children infected by age two.

Because of the prevalence and seriousness of the complications associated with RSV, quick, accurate detection and appropriate treatment are extremely important. The 3M™ Rapid Detection RSV Test addresses these needs by aiding clinical diagnosis and improving patient care.

### 2009 Progress and Achievements

- Completed RSV clinical trial and obtained U.S. FDA clearance for RAMP test
- Launched 3M™ Rapid Detection RSV Test in the U.S.
- Obtained Special 510(k) U.S. FDA Clearance to add analytical reactivity information for the 2009 H1N1 Influenza A virus to the RAMP Influenza A+B assay package insert

### 2010 Priorities and Opportunities

- Explore opportunities for potential markets outside the U.S.

## Non-Clinical Applications

### Biodefense

Response Biomedical manufactures and markets a line of biodefense tests for the on-site detection of anthrax, ricin, botulinum toxin and smallpox. These tests quickly and accurately identify and classify threats as either real or hoax.

RAMP Anthrax is the only commercially available, portable anthrax test to meet standards set by the Association of Official Agricultural Chemists (AOAC) International. The AOAC is a scientific association committed to raising worldwide confidence in analytical results.

### Environmental Virus Detection

#### West Nile Virus

The RAMP WNV Test is a pre-screening test used for identifying West Nile Virus in mosquitoes and birds. Independent evaluations confirm that our test is 100 times more sensitive than the next most competitive rapid test.

Our sole U.S. distributor, Adapco Inc, is the largest supplier of mosquito control products in that country.

## Corporate Offices

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www.responsebio.com

## Share Listings

Toronto Stock Exchange,  
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OTCBB, symbol RPBIF

## Shareholder Contacts

For stock transfers, lost stock certificates,  
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For other shareholder  
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Bill Wickson, Director, Investor Relations  
bwickson@responsebio.com

(604) 456-6073  
or visit our website at  
www.responsebio.com

## Receive shareholder updates by e-mail

We encourage you to register to receive  
shareholder materials by e-mail,  
which provides the most immediate  
distribution of information.

To register, please visit our website  
at [www.responsebio.com](http://www.responsebio.com).  
(e-news sign up)

## Transfer Agent and Registrar

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## Board of Directors

Richard J. Bastiani, PhD, Chairman

Richard K. Bear, CPA

Anthony F. Holler, MD

S. Wayne Kay, MBA

Todd R. Patrick, MBA

Ian A. Webb, MSc, LLB

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Duane A. Morris  
Chief Operating Officer

Livleen Kaler, CMA  
Vice President, Finance &  
Administration/Chief Financial Officer

Paul C. Harris, PhD  
Vice President, Research & Development

Patricia Massitti, CHRP,  
Director, Human Resources

## Annual Meeting

Our Annual General Meeting  
of Shareholders will be held at 9:00 a.m.,  
Tuesday, May 4, 2010 in the 1300-1500  
Event Rooms, Segal Graduate School  
of Business, Simon Fraser University  
Vancouver, 500 Granville Street,  
Vancouver, BC.

## Forward Looking Statement

Statements contained in this press release relating to future results, events or developments, for example, statements containing the words "believes," "may," "could", "plans," "will," "estimate," "continue," "anticipates," "intends," "expects", "goal" and similar expressions, are "forward-looking statements" or "forward-looking information" under applicable United States and Canadian securities laws. Forward-looking statements or information may involve, but are not limited to, comments with respect to our planned activities, business plan and strategies and their future implementation, and our expectations for our financial condition and the results of, or outlook for, our business operations generally. Forward-looking statements or information are subject to the related assumptions made by us and involve known and unknown risks, uncertainties and other factors that may cause actual results, events or developments to be materially different from those expressed or implied by such statements or information.

Many of such risks, uncertainties and other factors form part of our underlying assumptions, and include, among other things, financial risks that would affect our operations such as our limited available working capital and cash flows and whether and for how long available funds will be sufficient to fund our operations and our ability to raise additional capital as and when needed; our need for substantial additional funding to conduct research and development and commercialization activities; current financial market conditions which may negatively affect our ability to obtain financing; changing facility costs and other risks relating to our facilities expansion plans; our ability to establish, and our dependence upon, relationships with strategic alliance partners to develop and commercialize products; technological changes that impact our existing products or our ability to develop and commercialize our products; our ability to obtain and enforce timely patent and other intellectual property protection for our technology and products; our ability to obtain and maintain rights to technology from licensors; liability for patent, product liability and other claims asserted against us; commercialization limitations imposed by patents owned or controlled by third parties; technical risk in research and development; adverse results or unexpected delays in product development and clinical trials; our ability to retain, and our reliance upon, third party suppliers, manufacturers, distributors and alliance partners; our ability to attract and retain qualified personnel; our ability to effectively and efficiently manage the planned growth of our operations; our ability to obtain, and the timing of, necessary regulatory approvals; our ability to profitably sell our products at prices that would be acceptable to third-party reimbursement programs; competition including competition from others with significantly more resources; market acceptance of our products and the size of our markets; changes in business strategy or development plans; changes in, or the failure to comply with, governmental regulations; fluctuations in interest rates and foreign exchange rates; seasonality including government budget cycles; general economic and business conditions where we operate; and other factors referenced in our annual report, our Annual Information Form (AIF) (Form 20-F in the U.S.) and other filings with Canadian and United States securities regulatory authorities.

