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## Pacific Biometrics Inc. (PBME-OTC:BB)

**Pacific Biometrics – Providing Specialty and Central Laboratory Services along with Theranostics Diagnostic Technologies that Support Pharmaceutical and Diagnostic Healthcare Companies**

**Recent Price: \$1.75**

### Market Data

Market Capitalization (mln)	\$25.5
Enterprise Value (mln)	\$26.0
Fully Diluted Shares (mln)	16.0
Float (mln)	9.3
Avg. Volume (90 day, approx.)	24,646
Institutional Ownership	0%
Insider Ownership	40.2%
Exchange	OTC-BB

### Company Overview

Pacific Biometrics, Inc., through its two wholly owned subsidiaries, provides specialty reference and central laboratory services as well as contract research services that support pharmaceutical and diagnostic manufacturers conducting human clinical trial research for use in the drug and diagnostic product development. Laboratory research specialties include research in lipids and cardiovascular risk, diabetes and metabolic syndrome, as well as bone and cartilage metabolism. Through its Theranostics segment, the company is attempting to develop and commercialize its Osteopatch, SalivaSac, LIDA and Cell Viability technologies.

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### Summary and Investment Opportunity

- Expertise that Addresses High-Growth Therapeutic Markets**

Pacific Biometrics core laboratory services business addresses three of the largest and fastest growing areas of focus by the pharmaceutical industry: (1) cardiovascular disease, (2) diabetes, metabolic syndrome, and obesity, and (3) bone and joint diseases.

- New Growth Initiatives Aimed at Broadening Client Base**

In fiscal 2005, the company adopted a growth initiative designed to enhance and broaden its best-in-class services to existing and new clients. This growth strategy comprised three components: (1) Expansion of business development and sales & marketing activities; (2) significant infrastructure upgrades, including additional personnel, a new laboratory information system (LIS), and new instrumentation; and (3) a co-marketing agreement with Quintiles Laboratories, enabling access to global studies and a diversified client base.

- PBME – Positioned to Benefit from Continued Outsourcing Trend**

According to the Tufts Center for the Study of Drug Development, Contract Research Organizations (CROs) provide substantial global capacity to drug developers and have become a critical contributor to clinical trial activity. More specifically, the study found that pharmaceutical and biotech companies are increasing the portion of drug development work outsourced to CROs. In fact, pharmaceutical and biotech companies have increased spending on outsourced clinical research services at an annual rate of 15% since 2001, compared with 9% annual growth for overall spending on drug development. Pacific Biometrics appears well positioned to benefit from this general market trend.

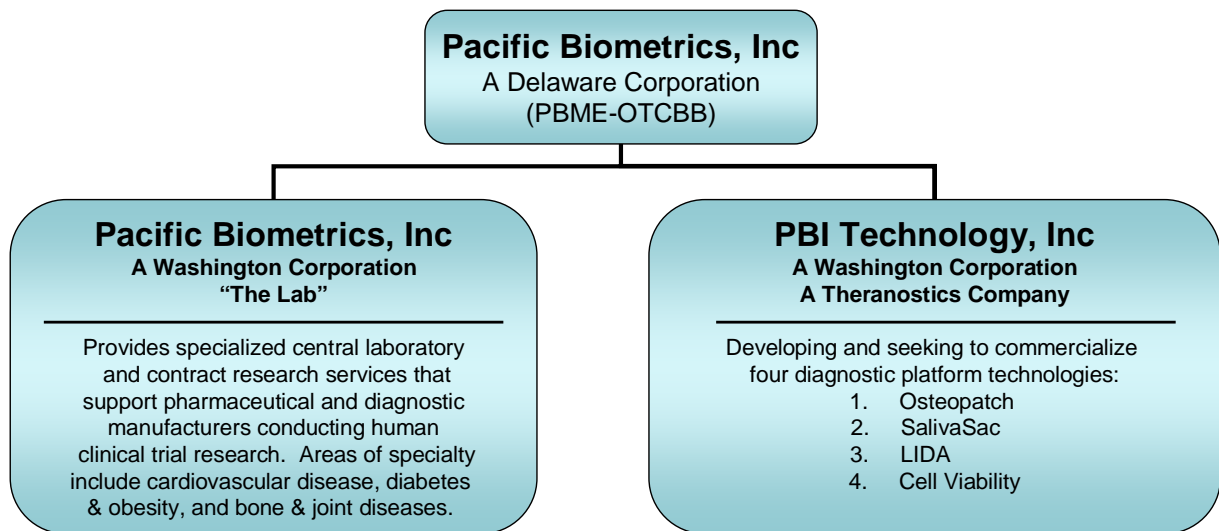
- Innovative Technologies that Address an Evolving Theranostics Market**

Theranostics describes the use of diagnostic testing devices to diagnose the disease, choose the correct treatment regime and monitor the patient response to therapy. Pacific Biometrics is attempting to develop and commercialize a portfolio of four innovative diagnostic technologies that include: the Osteopatch, the SalivaSac, LIDA and Cell Viability.



## Company Overview

Pacific Biometrics, Inc. (OTCBB:PBME) is a holding company that conducts its business through its two subsidiaries: Pacific Biometrics, Inc. and PBI Technology, Inc. Pacific Biometrics (the subsidiary) provides specialty reference and central laboratory services as well as contract research services that support pharmaceutical and diagnostic manufacturers conducting human clinical trial research for use in drug and diagnostic product development. The company's specialty reference laboratory, located in Seattle, Washington, provides specialized services in the following three core areas of expertise: (1) cardiovascular diseases – dyslipidemia, atherosclerosis, and coronary heart disease, (2) diabetes and obesity, and (3) bone and joint diseases – osteoporosis as well as osteo and rheumatoid arthritis. Pacific Biometrics' services are utilized primarily by the pharmaceutical, biotechnology and laboratory diagnostic industries. The company's clients include some of the world's largest multinational pharmaceutical and diagnostic companies such as Abbott Laboratories, Merck, Eli Lilly and GlaxoSmithKline. The company's laboratory is accredited by the College of American Pathologists and through its non-profit affiliate Pacific Biometrics Research Foundation is one of only three U.S.-based member laboratories of the Centers for Disease Control (CDC) Cholesterol Reference Method Laboratory Network (CRMLN).



PBI Technology, Inc., formed during fiscal 2004, is a Theranostics company that is attempting to develop and commercialize four diagnostic platform technologies that include two molecular diagnostic technologies (Logarithmic Isothermal DNA Amplification (LIDA), gene-based Cell Viability technology) and two noninvasive diagnostic devices (Osteopatch and SalivaSac). The LIDA and Cell Viability technologies were added to the company's technology portfolio in August 2002 by means of an asset purchase agreement with Saigene Corporation. Both the Osteopatch, which is a sweat collection device for monitoring markers of bone metabolism, and the SalivaSac, which is a saliva collection and processing device used to detect and monitor diabetes, were developed by PBME during the 1990s. Management believes that there may be potential commercial applications for some, if not all, of these technologies.

Since being spun out from the University of Washington School of Medicine in 1989, Pacific Biometrics has earned a reputation as one of the world's premier providers of lipid services for drug development processes and is the specialty laboratory of choice for many of the top international pharmaceutical, biotech and laboratory diagnostic manufacturers.

### Growth Initiatives – Diversifying its Client Base with Medium-Sized Pharma and Biotech Companies

Historically, Pacific Biometrics has targeted its sales and marketing activities toward major pharmaceutical and diagnostics companies. In fiscal 2005, the company adopted a growth initiative designed to enhance and broaden its best-in-class services to existing and new clients. This strategy is allowing the company to diversify its client base with medium-sized pharmaceutical and biotech companies, and to leverage a co-marketing agreement with Quintiles Laboratories to participate in large-scale and global trials. Actions taken to support this growth initiative included:

- The addition of a new Senior Vice President of Operations,
- The hiring of a new Controller,
- Additional personnel in business development, client services, data management, and laboratory operations,
- The installation of a new Laboratory Information System (LIS) which permitted the company to streamline and upgrade its project and data management systems,
- The adoption of a new corporate visual identity to span across all company marketing collateral and advertisements, and
- Increased visibility at industry trade shows, such as the Drug Information Association (DIA) annual meeting, and in industry publications via print advertising and targeted publicity campaigns.

### **Pharmaceutical Companies Continue to Increase Outsourcing to CROs**

In January 2006, the Tufts Center for the Study of Drug Development released a study which concluded that Contract Research Organizations (CROs) provide substantial global capacity to drug developers and have become a critical contributor to clinical trial activity. More specifically, the study found that pharmaceutical and biotech companies are increasing the portion of drug development work outsourced to CROs. In fact, pharmaceutical and biotech companies have increased spending on outsourced clinical research services at an annual rate of 15% since 2001, compared with 9% annual growth for overall spending on drug development. Additionally, the use of CROs leads to keeping projects closer to timelines and projected submission dates. The data shows high CRO usage projects were typically submitted more than 30 days closer to the projected submission date than those that did not utilize the services of a CRO. Furthermore, even in large pivotal trials, projects tend to be completed faster when CROs are used for a significant part of the work. Trials with high CRO usage tend to involve larger numbers of sites and volunteers. Consequently, Pacific Biometrics appears to be well positioned to benefit from this general industry trend of increased outsourcing of R&D activities to CROs. However, in order to be competitive in the central laboratory services business it is essential to provide a broad geographic footprint as most clinical drug development programs are global. Consequently, Pacific Biometrics sought out and partnered with a major central laboratory with a large established client base and existing infrastructure to manage clinical studies globally. That strategic partner is Quintiles.

### **The Quintiles Partnership – A Unique Co-Promotion and Co-Marketing Relationship**

In November 2004, Pacific Biometrics entered into a joint marketing agreement with Quintiles Laboratories Ltd. to co-promote and co-market central laboratory services. Under this agreement, Quintiles promotes Pacific Biometrics as its preferred partner for the provision of specialty and efficacy tests in its areas of expertise, namely lipids and cardiovascular risk, diabetes and metabolic syndrome, and osteoporosis and arthritis. Similarly, Pacific Biometrics promotes Quintiles Laboratories as its preferred partner for the provision of global central laboratory services. In order to effectively provide a broader portfolio of services, the two companies are integrating their procedures for specimen, data and project management. The result will be a seamless, one-stop shop that provides clients with efficient testing and results reporting through a single integrated database. Management entered into this joint marketing relationship because it believed that it will allow the company to more effectively compete with other central laboratories that have offices, monitoring sites and laboratories in countries around the globe, both for Phase I and Phase II trials, as well as Phase III and Phase IV trials.

**Pacific Biometrics – The Lab**

Pacific Biometrics' lab division provides specialty reference and central laboratory services primarily to the pharmaceutical, biotechnology, and laboratory diagnostic industries. The company also acts as a subcontractor for large central laboratories for its specialty reference laboratory services. Contracts for Pacific Biometrics laboratory services typically range from \$50 thousand to \$2 million per study, with historical gross margins generally in excess of 40%. The company's clients include firms that range in size from the world's largest pharmaceutical and biotechnology companies to smaller, startup organizations. The table below shows a partial list of some of the companies that have utilized Pacific Biometrics laboratory services.

Pharmaceutical Clients	Diagnostic Clients
Amylin	Abbott Laboratories
AstraZeneca	Atherotech
Atherogenics	Bayer Diagnostics
Bone Care International	Beckman Coulter
Bristol-Myers Squibb	Cholestech
Covance Central Lab	DiaDexus
DuPont Merck	Genzyme Diagnostics
Eli Lilly	Helena Laboratories
Fred Hutch Cancer Center	J&J (OrthoClinical Dx)
GlaxoSmithKline	Kyowa Medex
ICON Laboratories	Lifestream
ImClone Systems	Quidel (Metra Biosystems)
Insmed	Nova Diagnostics
Maxim	Otsuka America (& JIMRO)
Meade Johnson Nutritionals	Ostex International
Merck	Pointe Scientific
Novartis	Polymer Technologies
Pfizer (including Parke Davis)	Polymedco
Procter & Gamble	Quantimetrix
Quest Central Lab	Randox Laboratories
Quintiles Central Lab	Roche Diagnostics
Roche Pharmaceuticals	Serologicals Proteins
Schering-Plough	Sigma
Takeda	Wako Diagnostics
Unigene	
Wyeth	

Source: Pacific Biometrics, Inc.

Historically, Pacific Biometric's sales have been highly concentrated, with the company's largest two clients accounting for greater than 50% of the company's revenue. However, during the fiscal year ending June 30, 2005, the company's top two clients represented 40% of its revenue as compared to 75% during the fiscal year ending June 30, 2004. Furthermore, Pacific Biometrics largest client accounted for approximately 23% and 36% of total revenue in fiscal 2005 and 2004, respectively. Revenue from its five largest clients represented approximately 67% and 86% of total revenue in fiscal 2005 and fiscal 2004, respectively.

**Specialty Reference Laboratory Services**

Pacific Biometrics specialty reference laboratory, located in Seattle, Washington, has established itself as a technical leader in the following three core technical areas:

1. cardiovascular disease (dyslipidemia, atherosclerosis, and coronary heart disease),
2. diabetes, metabolic syndrome, and obesity, and
3. bone and joint diseases (osteoporosis as well as osteo and rheumatoid arthritis).

Management believes that among prospective new drugs, these areas of expertise represent three of the top ten areas of focus by the pharmaceutical industry, and thus offer significant growth opportunities.

With respect to cardiovascular disease, Pacific Biometrics is one of the leaders in lipid services for clinical drug development in the U.S. The company's expertise is concentrated on the measurement of cardiovascular disease markers, especially cholesterol and lipoproteins, including HDL, LDL, and HDL and LDL subfractions, remnant cholesterol, apolipoproteins, Lp(a), and lipoprotein fraction compositions. Furthermore, the Pacific Biometrics Research Foundation, a nonprofit organization affiliated and co-located with Pacific Biometrics, is one of only three U.S. standardization centers in the Cholesterol Reference Method Laboratory Network sponsored by the Centers for Disease Control and the National Heart, Blood & Lung Institute. There are only ten such laboratories worldwide.



Pacific Biometrics also has significant expertise in the area of diabetes and related disorders, notably obesity and metabolic syndrome. Metabolic syndrome is a collection of abnormalities that include central obesity, dyslipidemia (low HDL cholesterol and high triglycerides), insulin resistance, pre-diabetes and pre-hypertension. According to the American Heart Association, in the U.S., the prevalence of metabolic syndrome is estimated at 47 million individuals. People with metabolic syndrome are at increased risk for cardiovascular disease and associated morbidity and mortality and as a result, this population is coming under increased scrutiny for pharmacological intervention. Because of the company's established strengths in testing for lipids, cardiovascular risk and diabetes, management believes that the company is well positioned to take advantage of this emerging area of pharmaceutical drug development. Diabetes testing includes markers for glucose, HbA1c, IA-2, GADA, microalbumin, and non-esterified fatty acids (NEFA), in addition to lipid markers.

In the area of osteoporosis, bone and cartilage metabolism (both RA and OA), Pacific Biometrics specializes in measurement of hormones and biochemical markers, including pyridinolines, various C- and N- terminal telopeptides, procollagens, osteocalcin and bone-specific alkaline phosphatase, cartilage oligomeric matrix protein (COMP), and YLK40. In recent years, the company has actively expanded its test menu to include biochemical markers of cartilage turnover as relating to drug development for arthritis, and has performed specialty testing to support clinical drug development of drugs for rheumatoid arthritis and osteoarthritis. Markers of cartilage turnover on the company's test menu include CTX-II, PIIANP, COMP, YKL-40, and hyaluronan.

In connection with these areas of expertise, the company offers a variety of services through its specialty reference laboratory, including:

1. clinical study testing services,
2. development of laboratory reference methods,
3. development of clinical trial protocols, and
4. contract research and development.

Frequently, the company's involvement with clients begins at the protocol design stage. Clinical trial support services include coordinating the collection and receipt of specimens from investigative sites, processing the samples, generating test databases and reporting the consolidated data to study sites and sponsors. Management believes that the extensive knowledge gained in test development along with the company's close collaboration with diagnostic manufacturers, frequently allow them to offer novel tests to their clinical research clients before such tests are commercially available.

### **Central Laboratory Services**

Pacific Biometrics also provides full-service central laboratory services in support of North American multi-center clinical trials, which includes project management and routine safety lab tests (general chemistry, hematology and urinalysis). The company's operations support clinical trials by producing study-specific specimen collection supplies, coordinating collection and the receipt of specimens from clinical sites, processing the samples, generating test databases, and reporting data to sites and sponsors. Historically, the company has generally provided full-service central laboratory services in support of Phase I and Phase II FDA clinical trials. These trials are typically smaller and more geographically focused than Phase III trials. However, through its joint marketing relationship with Quintiles, Pacific Biometrics is now able to participate in global clinical trials. Consequently, the company is better able to compete with other central laboratories that have offices, monitoring sites and laboratories in countries around the globe, both for Phase I and Phase II trials, as well as Phase III and Phase IV trials.

### **The Competitive Landscape for Specialty Reference and Central Laboratory Services**

The specialty reference and central laboratory services industries have many participants ranging from small, limited-service providers to a limited number of full-service laboratories with global capabilities. Furthermore, the CRO market has experienced significant consolidation over the last several years and that trend is expected to continue. Competition can be characterized as being highly competitive with companies competing for clients on the basis of (1) technological expertise and efficient drug development processes, (2) financial stability, (3) reputation for on-time quality performance, (4) strengths in various geographic markets and global reach, (5) the ability to manage large-scale clinical trials both domestically and internationally, (6) expertise and experience in specific clinical research areas, (7) scope of service offerings, (8) price, (9) the ability to acquire, process, analyze and report data in a timely and accurate manner, (10) size, and (11) expertise and experience in health economics and outcomes services. While size and global reach are more important competitive factors in the central laboratory services business, technological expertise appears to be more important for specialty reference laboratory services.

For specialty reference laboratory services in its areas of expertise, Pacific Biometrics primarily competes against other full-service and limited service specialty and central laboratory services organizations and, to a lesser extent, laboratories in academic centers. Many of these organizations have significantly greater resources than Pacific Biometrics. Significant competitors in specialty reference laboratory services include Esoterix Inc. (now part of LabCorp), Quest Diagnostics, Synarc, Inc., Linco Diagnostics, NW Lipid Laboratory, and the Mayo Clinic.

In the full-service central laboratory service area, Pacific Biometrics primarily competes with much larger full-service central laboratories that tend to have significantly greater resources and many have international operations. Significant competitors in central laboratory services include Covance Central Laboratory Services, Inc., PPD, Inc., Quintiles Transnational Corp., Parexel International Corporation, MDS Inc., Quest Diagnostics Incorporated and LabCorp, among others.

### **PBI Technology, Inc. – A Theranostic Company**

PBI Technology, Inc. is a Theranostics company. Theranostics describes the use of diagnostic testing devices to diagnose the disease, choose the correct treatment regime and monitor the patient response to therapy. Recent advances in the understanding of the molecular pathways of disease have proved to be a catalyst for greater integration between medical diagnostics and therapeutic drug treatment. Medical diagnostics can confirm gene and protein expressions and their subsequent intra-interactions. Furthermore, medical diagnostics can be used to guide and monitor therapy based on the interaction of biologicals and pharmaceuticals with target proteins. More specifically, protein biomarkers and corresponding tests can be used to predict and monitor drug response. This enables the stratification of patients into groups that are most likely to respond to a certain drug treatment regime with minimal side effects. A diagnostic test that can increase the clinical utility of a given therapeutic drug as well as reduce the risks and costs associated with developing and marketing it clearly creates synergy, which leads to improved disease management. This principle of matching a therapeutic entity to a companion diagnostic test greatly improves the possibility the right drug is used for the right patient, at the right time. This concept is known as Theranostics. The term itself encompasses many areas such as predictive medicine, personalized medicine, integrated medicine, pharmacodiagnosics and Dx/Rx partnering. Theranostic applications offer a tighter clinical fit between medical diagnostics and therapeutic drug treatment, which can be applied to:

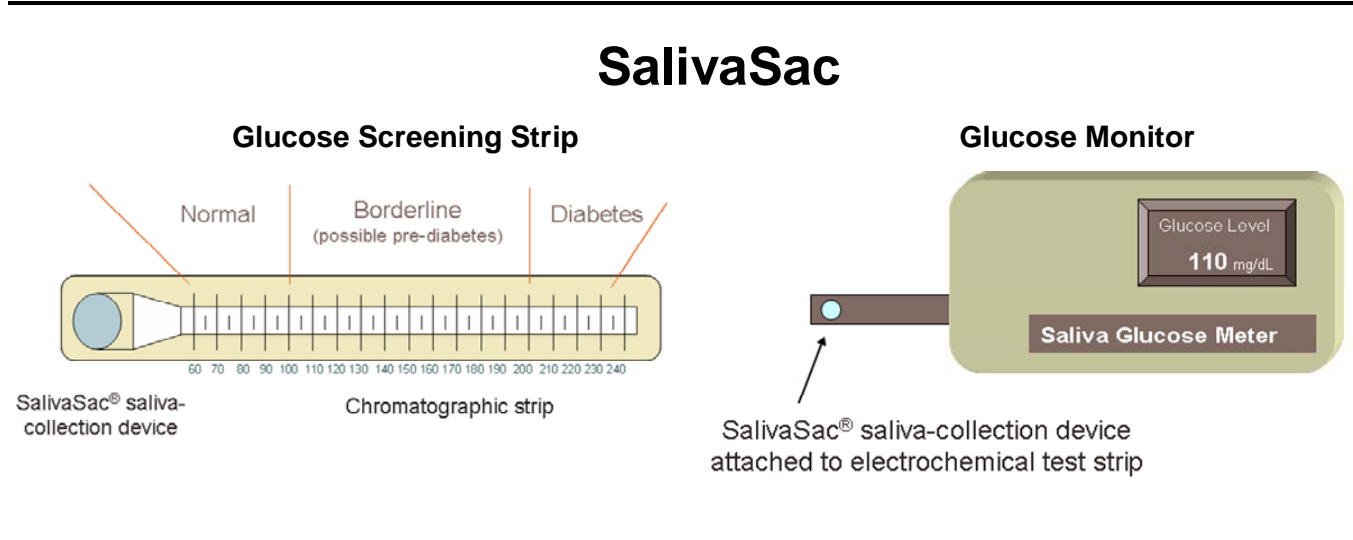
- Disease risk prediction,
- Disease diagnosis,
- Disease prognosis,
- Patient stratification,
- Therapeutic stratification, and
- Monitoring therapeutic response.

PBI Technology, Inc. currently has a portfolio of four diagnostic platform technologies – two noninvasive diagnostic devices (Osteopatch and SalivaSac) and two molecular diagnostic technologies (LIDA and Cell Viability) that it is attempting to develop and commercialize.

### **SalivaSac – A Saliva Collection and Processing Device.**

The SalivaSac is a proprietary device that collects a non-invasive saliva sample that may be able to replace blood and urine testing in various applications. The SalivaSac, which contains a small quantity of a substance that acts as an osmotic driver, is placed in the mouth and rapidly fills with an ultra filtrate of saliva that is filtered as it passes through the

semi-permeable outer membrane. The resulting fluid is clear, easy to use, and does not contain interfering substances. The SalivaSac, pictured below, can be combined with currently available testing technologies to permit new, noninvasive diagnostic test applications. Management believes the SalivaSac design has the potential to lend itself to point-of-care diagnostic applications, including as a screening product to detect diabetes in the general population, or as a monitoring product to produce detailed quantitative measurements of blood glucose levels.



Source: Pacific Biometrics, Inc.

According to a 2005 study conducted by Freedonia, U.S. demand for diabetes monitoring products and therapies is expected to grow 9.5% annually through 2008. Gains will be driven by more diabetes patients and more aggressive treatments. Best prospects include electrochemical blood glucose test strips, pre-filled disposable insulin pen injectors, and TZD and peptide agonist oral anti-diabetic agents. Management believes that the SalivaSac – which would be sold as an over-the-counter device – could capture a significant share of the market on the basis that it is a noninvasive collection device.

### Osteopatch – A Sweat Collection Device for Monitoring the Treatment of Osteoporosis



The OsteoPatch is a patented technology that measures the presence or absence of markers, typically cross-linked amino acids such as pyridinoline, from body fluids such as sweat. The presence of these markers is useful to support the diagnosis of certain bone disease states or conditions, such as osteoporosis. This device can also be used as an adjunct to monitor a patient’s response to treatment of such bone diseases. Diagnostic tests, such as the OsteoPatch, are valuable because of their ability to increase the clinical utility of a given therapeutic drug as well as reducing the risks and costs associated with its development. Management believes that they can achieve up to a 6% market penetration rate without the aid of a major sales and distribution partner, and could possibly achieve up to a 15% market penetration rate with the assistance of a major sales and distribution partner. Assuming that Pacific Biometrics partners with a major sales and distribution partner, management believes that the OsteoPatch product could generate as much as \$31 million in revenue by 2007 and potentially \$100 million in revenue by 2013.

#### The Osteoporosis Market Opportunity

Osteoporosis is a major public health threat for an estimated 44 million Americans, or 55% of people 50 years of age and older. In the U.S., 10 million individuals are estimated to already have the disease and almost 34 million more are estimated to have low bone mass, placing them at increased risk for osteoporosis. Of the 10 million Americans estimated to have osteoporosis, eight million are women and two million are men. Aging baby boomers and increasing longevity is bringing about a rapid rise in the number of people at risk for osteoporosis and subsequent fractures, particularly of the femur and of spine deformations. Consequently, there appears to be a large and rapidly growing market opportunity for

manufactures of diagnostic tests that have the ability to quickly and accurately detect the presence of and monitor the treatment of osteoporosis.

A January 2006 report conducted by Datamonitor has forecast that the domestic market for osteoporosis treatments will generate \$10.4 billion in sales by 2011, up from approximately \$5.0 billion in 2003. The World Health Organization estimates that the total treatment costs associated with osteoporosis are US\$18 billion worldwide. Worldwide sales of the top seven osteoporosis drugs in 2004 were over US\$6 billion, with Fosamax from Merck and Co (a bisphosphonate) the number 12 drug in the world at just over US\$3 billion. A recent addition, Forteo from Eli Lilly, is an injectable fragment of parathyroid hormone that had sales of US\$238 million in 2004, a four-fold increase on 2003.

### **Logarithmic Isothermal DNA Amplification (LIDA) – A Handheld DNA “Xerox Machine”**

LIDA is a novel patented isothermal DNA amplification technology that essentially acts like a DNA “Xerox machine.” This device has the potential to be a powerful tool for specific applications in (1) molecular diagnostics, including genotyping, pharmacogenetics, pharmacogenomics, (2) point-of-care testing for infectious disease, and (3) food safety testing and bioterror detection. The LIDA reaction is fast and isothermal, which enables real-time detection and is capable of being incorporated into hand-held biosensor devices, such as the CAD concept device pictured here. LIDA consists of successive rounds of DNA extension and transcription which are accomplished in the following manner:



- Starting with single- or double-stranded nucleic acids, reverse transcriptase is used to extend (fill in) single-stranded templates
- T7 RNA polymerase is used to transcribe from the double-stranded template ("amplification duplex") - cyclical DNA melting is not required
- Single-stranded products from the transcription reaction are then extended (filled in) by RT, generating additional amplification duplexes
- The reaction cycles between extension and transcription, generating both single- and double-stranded products
- The reaction occurs at a single temperature throughout - isothermal
- The reaction is fast (minutes) and takes place in a single tube.

### **Cell Viability – A Rapid Test for Identifying DNA from Live vs. Dead Cells**

The Cell Viability technology is a proprietary method for rapidly determining whether a DNA target is from a living "viable" or dead "non-viable" cell. This process can be used to identify pathogens in mixed cultures (such as sputum) and to determine the antibiotic resistance profile of the pathogen. The Cell Viability technology combines short-term culture with specific DNA capture, amplification, and detection to produce a unique hybrid of phenotypic and genotypic detection. Cell Viability technology comprises the following steps:

2. Target cells are cultured in medium containing the nucleoside analog BrdU, which is incorporated into the DNA of viable replicating cells.
3. Cells are lysed to release their DNA.
4. BrdU-containing DNA is captured by anti-BrdU antibodies coated on microtiter plates or in PCR tubes.
5. The captured DNA is amplified (by LIDA or PCR), thereby increasing the sensitivity as well as specificity, by use of target-specific primers.
6. The amplified DNA is detected by means of target-specific probes, further enhancing the specificity.

The company is currently evaluating a number of potential applications of this patented proprietary technology, including antibiotic susceptibility testing, rapid pathogen detection (e.g. meningitis and sepsis), oncology (tumor response to chemotherapy), and food safety testing. In addition to in-house development programs, Pacific Biometrics is also

exploring opportunities for co-development or licensing by suitable strategic partners for both its LIDA and Cell Viability technologies.

### **Management Team**

#### **Ronald Helm, JD – Chairman and Chief Executive Officer**

Ronald Helm became Chairman and Chief Executive Officer of Pacific Biometrics, Inc. in August of 2002. Mr. Helm is a co-founder of Saigene Corporation and is Chairman of the Board. Prior to forming Saigene in 1996, Mr. Helm was Chairman of the Board and Chief Executive Officer of a biotech company in Southern California and has held senior management positions in the industry since 1992.

For nearly nine years, Mr. Helm served as the Associate Dean for Development and Professor of Law at Pepperdine University School of Law in Malibu, California and following that, was the Senior Vice-President and General Counsel of ComputerLand Corporation, which became Vanstar Corporation (a NYSE company). Mr. Helm went on to found the California law firm of Helm, Purcell and Wakeman, where he remained "of counsel" until 1995. He also served as a Managing Director of ComputerLand Europe until 1999, an independent private company with 130 retail outlets in 15 countries producing annual network revenues in excess of two billion dollars. Mr. Helm is a member of the Bar of California State and the United States Supreme Court.

#### **Elizabeth Teng Leary, PhD, DABCC – Chief Scientific Officer**

Dr. Leary co-founded Pacific Biometrics, Inc. (PBI) and Pacific Biometrics Research Foundation (PBRF) in 1989. She served as the Vice President of Laboratory Services until the spring of 2000, when she became Chief Scientific Officer.

As the PBI Laboratory's Chief Scientific Officer, Dr. Leary lends her expertise within the company and consults actively for the diagnostic and pharmaceutical industries. Her areas of focus are laboratory support of clinical trials and product research in cardiovascular diseases, osteoporosis, and diabetes.

Dr. Leary served as a director of clinical chemistry and industry consultant for 13 years prior to joining Pacific Biometrics, Inc. Dr. Leary received her degrees in Biochemistry from the University of California at Berkeley and Purdue University. She is a diplomat of the American Board of Clinical Chemistry. Dr. Leary is the director of the CDC Cholesterol Reference Network Laboratory at PBRF (one of eleven in the world). She is past chair of the Pacific Northwest chapter of American Association for Clinical Chemistry (AACC) and the Lipids Division of AACC, and past president of the North American Chinese Clinical Chemists Association. She has published over 80 articles in peer-reviewed journals and books and is a recipient of several grants and awards.

#### **Mario R. Ehlers, MD, PhD – Chief Medical Officer and PBI Technology's President and COO**

Dr. Ehlers became Chief Medical Officer of Pacific Biometrics, Inc. in August of 2002. Dr. Ehlers is a physician-scientist with 11 years of experience in academic research and 8 years of biopharmaceutical industry experience in drug development, business development, and investor relations. Drug development activities include design and implementation of preclinical and clinical studies, IND creation and submission, and interactions with regulatory agencies, in several therapeutic areas, including diabetes, cardiovascular, and osteoporosis.

Prior to joining PBI, Dr. Ehlers served as Chief Medical Officer of Restoragen, Inc., a biotechnology start-up focused on the therapeutic applications of endocrine peptides. He was formerly chairman of an academic department at the University of Cape Town Medical School and instructor in biochemistry at Harvard Medical School. He is author to over 50 publications and 5 patent applications (4 issued or allowed), with an international reputation in research on ACE and related proteases and in mycobacterial infectious diseases.

#### **Michael Murphy, PhD – Senior Vice President of Operations**

Dr Murphy became Senior Vice-President, Operations of Pacific Biometrics, Inc in May, 2005. He also served as Director of Laboratory Services from 1998 – 1999 before returning to the commercial clinical diagnostic laboratory industry.

As the Senior Vice-President, Operations, Dr Murphy manages all aspects of the PBI service business including laboratory operations, client and information services, and quality assurance. Dr. Murphy also works closely with other members of the PBI senior management team to help grow the service business.

Dr. Murphy brings more than 20 years of laboratory experience to PBI. His experience includes various environments such as clinical diagnostic, commercial reference, and clinical trial and research laboratories. Dr Murphy has served in administrative and technical directing capacities in all of these settings. He has also served as a principle investigator in several research and diagnostic studies. His areas of expertise include technical and administrative laboratory operations, method standardization and quality assurance, laboratory consultation and support, information systems and laboratory automation. Research and clinical areas of interest include diabetes, infectious diseases, cardiovascular and oncology testing. Dr Murphy received his B.S. from Xavier University and Ph.D. from The Ohio State University. He is a Diplomat of the American Board of Clinical Chemistry.

**John P. Jensen – Controller**

John Jensen became Controller for Pacific Biometrics, Inc. in 2005. As Controller, Mr. Jensen is in charge of preparation of all financial reports that summarize the organization's financial position, such as income statements, balance sheets, and budgets. He manages the preparation of special reports required by regulatory authorities as well as oversees the accounting department, banking, cash management, risk management, and the annual audit.

Mr. Jensen has a strong background in financial management with over twenty five years experience in a variety of sectors including manufacturing, professional service, and retail medical supplies. He has broadened his skill sets beyond the financial role and held senior management positions including Director of Operations for Seattle Lab and Vice President of Operations for Utility Inc.

Mr. Jensen received his Bachelors of Arts in Business Administration with a Minor in Mathematics at Eastern Washington University Cheney, Washington. He also serves the community as chair of the Planning Policy Commission for the City of Issaquah and is a member of the King County Metro Transit Advisory Committee.

**Janice E. O'Connor – Director of Business Development**

Janice O'Connor joined Pacific Biometrics, Inc. in 1998 and is Director of Business Development. She possesses a solid foundation in business, science, and the healthcare industry.

Ms. O'Connor is responsible for promoting and maintaining collaborative associations and partnerships with diagnostic, pharmaceutical, and biotech companies for research and clinical trials. Ms. O'Connor maintains an extensive client database, produces sales and marketing materials, as well as organizes exhibitions and conferences for PBI participation in cardiovascular risk, osteoporosis, and diabetes related areas of research.

Prior experience includes nearly twenty years of international and domestic positions with two world-renowned, industry leading Fortune 100 corporations (Sales and Business Leader - Marketing Divisions for Johnson & Johnson Clinical Diagnostics Division, and Eastman Kodak Clinical Diagnostics Division). Ms. O'Connor holds a MS in AHP Clinical Chemistry, BS in Medical Technology, and BA in Biology with a Minor in Chemistry. She is a member of the American Association of Clinical Chemistry, Biomedical Marketing Association, and Washington Biotechnology & Biomedical Association.

**Timothy Carlson, PhD, RD, NRCC – Laboratory Director**

Dr. Carlson joined Pacific Biometrics in 1998 as a Senior Scientist. He was promoted to the position of Laboratory Director in May of 2000 and is responsible for all aspects of laboratory operations. He also serves as a science and technical consultant to laboratory clients.

Dr. Carlson has broad training and experience in basic and clinical sciences. He has received grant research awards from the National Institutes of Health, American Blood Systems Research Foundation, American Association of Blood Banks, and the American Heart Association. Dr. Carlson has published more than 75 research papers, chapters, and abstracts in the areas of nutrition, chronic disease, and hemostasis. He is a registered clinical chemist and dietitian, and holds a PhD in Biochemistry. He has completed his post doctorates in Protein Chemistry and in Clinical Chemistry. He was a Fogherty International Scholar at the University of Lund, Sweden. Dr. Carlson served on the American Association for Clinical Chemistry Abstract Review Committee (1997-2001) and as the Editor of The Nutrition Forum, the newsletter of the Nutrition Division of the American Association for Clinical Chemistry Nutrition (1996-1999).

**Ken Waters, JD – Director of Strategic Planning**

Mr. Waters became the Director of Strategic Planning for Pacific Biometrics in September 2002. His primary focus is to assist the Company with corporate and strategic partnering activities.

Mr. Waters has also established his own business and legal consulting practice associating with several well-known firms. His clients have included AT&T, Williams-Sonoma, Commodore International, CMS Enhancements Inc., ComputerLand, Power Up Software, Peerless Systems Corporation, and CelluLand. Mr. Waters has specialized in the computer industry, corporate turnarounds, restructuring, and providing advice in the franchise field. He has had experience in manufacturing, retail, and distribution in companies of varying sizes. He has associated himself in the past with Frank Lynn & Associates in Chicago, and with Grisanti, Gaileff, and Goldreff.

Mr. Waters is the former CEO of ComputerLand Corporation, President of Power-Up Software, and President of Microage Corporation. During his tenure at ComputerLand, the company became the world's largest retail computer company with over 800 stores worldwide. At the time he was President, Microage Corporation was the largest public company headquartered in Arizona. Mr. Waters has a BA in Political Science/History and is a member of the California Bar Association. He was rated one of the Top 25 most influential executives in the computer industry by the Computer Reseller News for 1987 and 1988.

**Tonya K. Aggoune – Manager, Client and Information Services**

Ms. Aggoune became the Manager of Information Systems for Pacific Biometrics, Inc. in 1997. In 2000, she also became responsible for the Client Services Department.

As the head of the Information Systems (IS) department at PBI, Ms. Aggoune has been responsible for information technology (IT), computer operations, and the Laboratory Information Systems database. She is also the principle liaison between PBI and client Data Management personnel to develop requirements for reporting, data transfer, and other custom database applications for pharmaceutical and diagnostic studies. PBI recognizes the benefit of a close relationship between project management and data management in a company whose product is information (laboratory data). The Client Services team oversees project management of our pharmaceutical and diagnostic/referral studies. The team is responsible for coordinating the laboratory services needed to meet the sponsor's study requirements and serving as the principle liaison between the sponsor's project management and PBI.

Ms. Aggoune has a BA in Biological Sciences and BS in Electrical Engineering. Her background includes extensive experience as a systems engineer in aerospace research and laboratory information systems in the Health Care industry. As an engineer at Boeing Aerospace, she designed and developed prototypes for computer based training systems, paperless maintenance systems, and command/control/communication systems. She later joined National Health Laboratories (later became Labcorp) as Assistant Manager of Information Systems where she was able to bring together her experience with computer systems/software and her background in biological sciences.

**Kristin Walsh – Quality Assurance Manager**

Kristin Walsh became the Manager of Quality Assurance for Pacific Biometrics, Inc. in 2004. As Quality Assurance Manager, Ms. Walsh acts as an independent agent to achieve the company's goals and objectives as they relate to Quality Assurance and Quality Improvement. In this position, she is responsible for developing and implementing the strategic plans required to ensure that the laboratory consistently improves its service level, while maintaining compliance with all applicable state and federal regulations.

Ms. Walsh has a strong background planning and managing Phase I through Phase III stability studies in addition to clinical laboratory operations and logistics. Ms. Walsh received her Bachelors of Science in Biochemistry at Lafayette College in Easton, Pennsylvania. Prior to her employment with PBI in 2002, Ms. Walsh served first as a Lab technician and then advanced to Senior Analytical Chemist for Metrics, Inc., a contract pharmaceutical laboratory in Greenville, North Carolina, managing Phase I through Phase III stability studies and planning and executing method and instrument validations.

**Conclusion and Investment Opportunity**

On February 14, 2006, Pacific Biometrics reported its financial results for its second fiscal quarter. Revenues during the period increased an impressive 309%, to \$3.1 million from \$1.0 million during the same period a year earlier. Net income for Q2-06 was \$461,463, or \$0.03 per fully diluted share, compared with to a net loss of \$362,812, or \$0.03 per fully diluted share, for the comparable period during the FY05. Management attributed this significantly improved financial performance primarily to an increase in demand for clinical testing services as well as open work orders. The business development initiatives that the company began in FY05 appear to be gaining traction and are expected by management to drive significant revenue increases going forward. In fact, the company has more than doubled its quarterly revenue in four of the last five quarters. With the installation and implementation of significant laboratory infrastructure upgrades, including the company's new laboratory information system, Pacific Biometrics appears well positioned to further improve and expand upon services to its clients and, hopefully, observe additional productivity gains which should translate to further improvements in the company's underlying costs structure. While Pacific Biometrics continues to focus on providing quality specialty laboratory services in its core areas, including cardiovascular disease, diabetes, metabolic syndrome, osteoporosis, and arthritis; management anticipates that the demand for its expertise in clinical development studies will continue to be a significant driver for future growth.

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### Analyst Highlight

#### **Michael A. Bain, CFA, Senior Research Analyst Special Situations and Healthcare**

Mr. Bain has experience conducting both sellside and buy-side equity research, primarily in the healthcare, industrial equipment and transportation sectors. Most recently, Mr. Bain worked as an equity analyst for Institutional Research Consultants, where he provided customized research services to institutional investors. Prior to that, Mr. Bain worked on the sellside for Raymond James, where his research focused on companies that provide transportation and logistics services. Mr. Bain entered the securities industry in 1996, when he joined NatWest Securities. At that time, he conducted research primarily on manufacturers of cardiovascular medical devices and industrial equipment. That office was subsequently acquired by HSBC Securities in 1998, and his coverage universe was broadened to include manufacturers of disposable medical supplies. Prior to entering the securities business Mr. Bain served as a Commercial Property Analyst for USAA and as an independent consultant.

Mr. Bain holds a Bachelor of Arts degree with a major in economics and a Master of Business Administration degree with a concentration in finance both from the University of Florida. Additionally, he is a CFA Charterholder and a member of the CFA Institute.

### Leadership Team

**Brian R. Connell, CFA**  
*Chief Executive Officer*

**Michael A. Bain, CFA**  
*Director of Research*

**James D. Boston**  
*President & Chief Operating Officer*

### Client Team

**David W. Boral**  
*Associate, Business Development*

**Elizabeth A. Frederick**  
*Associate, Client Support*

**Kristin Houdlett**  
*Associate, Business Development*

### Equity Research Team

**Michael A. Bain, CFA**  
*Director of Research, Healthcare, Special Situations*

**David Harper, CFA**  
*Software*

**Michael R. Anderegg, CFA**  
*Information Security and Data Storage*

**Andrew S. Hua, CFA**  
*Technology and Asia Focus*

**Nelson L. Bishop, CFA**  
*Aerospace and Defense*

**Stephanie Loiacono, CFA**  
*Banks and Specialty Retail*