

Equity Research

HEALTH CARE

Life Sciences/Diagnostics

June 16, 2004

Update Report (04-028)

Ticker: BSTE
Price: \$43.92
52-week: \$24-\$58

Stock Rating:

Market Perform

Company Profile:

Aggressive Growth

Winton Gibbons
312.364.8371
wgibbons@williamblair.com

Jonathan Good
312.364.8951
jgood@williamblair.com



William Blair & Company, L.L.C.
222 West Adams Street
Chicago, Illinois 60606
312-236-1600
www.williamblair.com

Biosite Incorporated

Eye of the Needle or Eye of the Storm?

Biosite is trying to maintain revenue growth long enough to enter a new product cycle; however, competition continues to build in its most important market: tests for congestive heart failure (CHF).

Increasing BNP Competition. In addition to Abbott Laboratories, we expect Dade Behring Holdings Inc. (third quarter 2004) and Diagnostic Products Corporation (first half 2005) to join Bayer AG and Roche Group in a crowded CHF market. We do not expect market shares or pricing to stabilize until late 2004 to mid-2005.

New Product Cycle Starting 2005. We estimate that Biosite's most promising new product, Triage Stroke, will not be on the market in the United States until the first half of 2006. Meanwhile, we anticipate other new product panels, including Triage Shortness-of-Breath and a chest pain panel to launch over the next 18 months.

Maintaining Market Perform Rating. We base our Market Perform rating on expected 12-month stock performance; however, as we anticipate a rocky road for at least 9 months, we recommend that only investors who can stomach downside potential into 2005 buy at current levels. Trading-oriented or more risk-averse investors may be able to buy when the risk/reward trade-off is more favorable, and we feel long-term holders could be rewarded once Biosite is through the storm.

Biosite is a leading supplier of rapid assays to the \$6 billion immunoassay market. The company derives about 65% of total product revenues from Triage BNP, a novel test for CHF. Other key products include test for drugs of abuse and heart attacks. Although the company was first to market a test for CHF, there will be at least four competitors marketing CHF tests by year-end. Therefore, we foresee that Biosite's operating performance over the next 9-15 months to be challenging, but a new product cycle led by Triage Stroke could reinvigorate growth in 2006 or 2007.

FINANCIAL SUMMARY

Fiscal Year Ends:	December	Book Value Per Share (3/31/04):	\$9.87
2003-2005E EPS Growth Rate:	15%	Diluted Common Shares:	16.4 million
Net Debt/Total Cap. (3/31/04):	11%	Market Value:	\$677 million
ROE (2004E):	21%	Insider Ownership:	17%

FISCAL YEAR	2003A	2004E	2005E
ESTIMATES			
Earnings Per Share	\$1.50	\$2.02	\$1.98
Earnings Growth	74%	34%	-2%
Revenue (mil)	\$173	\$225	\$229
Revenue Growth	65%	30%	2%
VALUATION			
Price/Earnings Ratio	29.3x	21.7x	22.2x

William Blair & Company, L.L.C. has received compensation for investment banking services from the company within the past 12 months, or expects to receive or intends to seek compensation for investment banking services in the next 3 months.

Please consult pages 23 and 24 of this report for all disclosures.

Contents

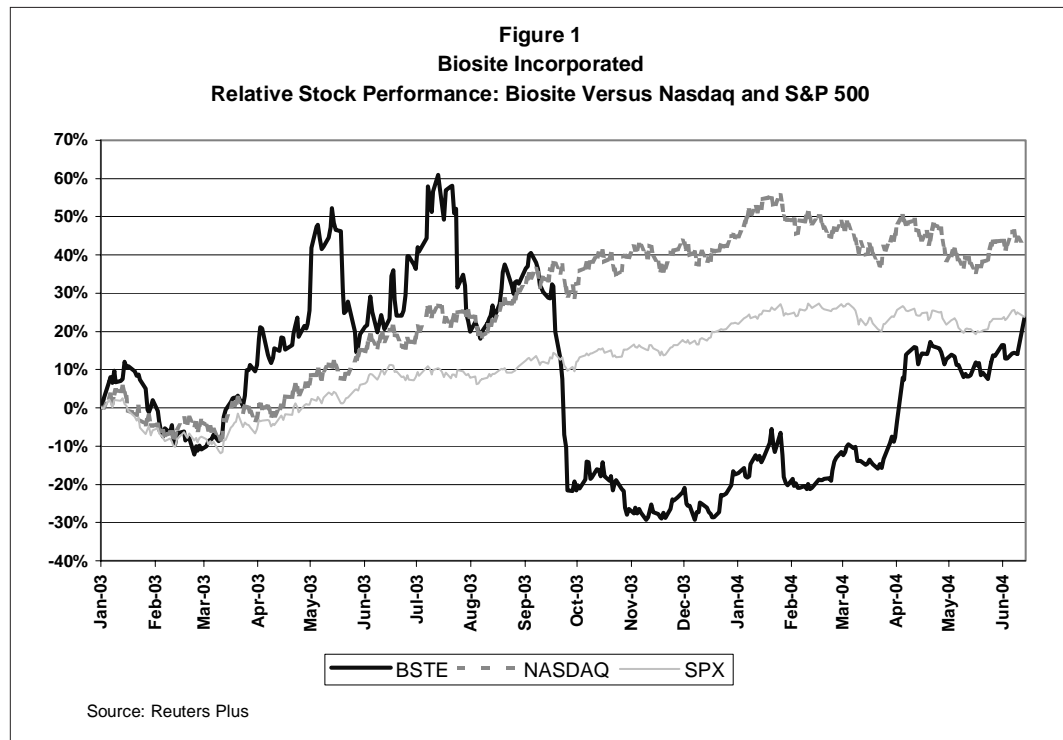
Summary: Stock Thoughts 3

Risks and Warning Signs 4

CHF (BNP) Competition Will Only Worsen 5

Promising New Product Cycle Starting 2005 8

Valuation 18



Summary: Stock Thoughts

Cautious in 2004

We believe that there is increasing probability of downside risk in the second half of 2004 from anticipated doubling of CHF competition. However, investors should prepare for a 2005 inflection point from a new product cycle, at which time we believe it may be better to purchase the stock.

Eye of the Storm

We continue to remain cautious until 2005—after Abbott, Dade, and Diagnostic Products complete their launches of CHF tests (BNP and NT-proBNP), and market shares settle, in addition to *price*. Biosite itself acknowledged a year-over-year decline in pricing of 4%, down 1% sequentially. In addition, the company believes Abbott has quoted prices lower than \$12 for its CHF tests, compared to Biosite's current prices in the high teens to low \$20s. We believe real pressure pricing will begin when Diagnostic Products enters the market in 2005, as it has a reputation for lacking price discipline.

Roche Drives Even More CHF Competition

We that expect competition for CHF will only worsen, with a number of NT-proBNP licensees coming out of the woodwork. Abbott could launch BNP on the i-STAT platform by year-end, and Inverness Medical Innovations, Inc. (IMA) announced that it recently exercised an option for a nonexclusive license from Roche Diagnostics for NT-proBNP. Nanogen recently bought Syn.X, which also has an NT-proBNP license. Lastly, Bioveris—the IGEN International, Inc. spin-off—claims in its filings to be working on a CHF test, and given all the other licenses it has received from Roche, it also may have received or will receive NT-proBNP for its point-of-care system.

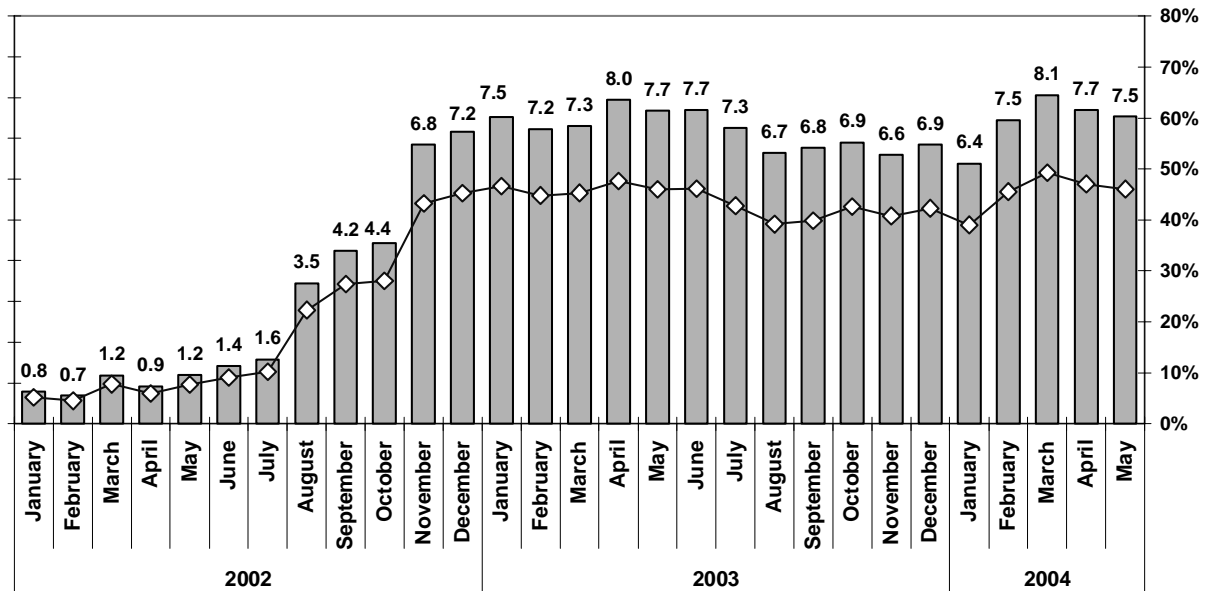
New Product Cycle Should Begin Anew and in Earnest by Mid-2005

Shortness of Breath panel. During the first quarter, Biosite submitted a 510(k) to the FDA for its shortness-of-breath or dyspnea panel-D-dimer, BNP, Troponin I, CK-MB, and Myoglobin, and we expect it to be on the market by third quarter 2004.

Stroke. Biosite has enrolled 435 patients in its clinical trial at the 10 centers that are actively enrolling patients. The company expects to add an additional 10 clinical study sites, with the trial conducted worldwide. Biosite intends the study to be completed in time to file a premarket approval (PMA) with the FDA by year-end, and intends to launch the test in Europe in early 2005, shortly after FDA submission. We would expect the test to launch in the United States in early 2006.

CardioProfiler II (ischemia). This summer Biosite is relaunching (again) its CardioProfiler I for chest pain diagnosis and risk stratification. This is intended to be a two-phase launch, the first with an extended range Troponin I and the second with a novel, mathematical algorithm to interpret the results. However, as we have noted in a number of earlier notes, Biosite has been on a licensing spree to gain access to novel markers of ischemia (lack of oxygen) and risk of plaque disruption, including myeloperoxidase (MPO) from the Cleveland Clinic and cys-albumin from DMI BioSciences. While development of these assays, including clinical studies, would normally take three years or so, it is possible that timeline could be shortened in this instance as Biosite already has a large number of relevant, validated patient samples in its discovery program.

Figure 2
Biosite Incorporated
Short Interest as a Percentage of Diluted Shares Outstanding
(million shares)



Source: NASDAQ and company financial statements

Risks and Warning Signs

Slowing BNP Revenue Growth/Revenue Decline

We believe that the most significant driver of Biosite's financial performance over the past two years and the next 18 months is BNP sales. Potential risks to Biosite's BNP franchise include market share (volume) losses in large hospital accounts; potential decline in the prevailing market price (we estimate from 5 up to 60% lower); slower-than-expected market penetration in physician office laboratories; and stalled sales growth in Europe.

Risk From Hospital Accounts

- Sales volume from Biosite's current installed base business could decline due to competition.
- Pricing risk due to more competition and possible price-cutting to win contracts.
- New business could be more difficult to win due to increased competition.
- Volume growth (due to new medical indications) per institution is uncertain.
- Europe likely represents potential upside, but also with great uncertainty.

Risk From Physician Office Laboratories Accounts

- Acceptance by physicians: Is there a need and at what volume?
- Will point-of-care testing replace sending out lab tests to reference labs?
- If tests are sent out, can Biosite capture this volume with its assay for Beckman Coulter Inc. instruments?

Stroke Development Time Line Not Yet Certain

We believe there are three main risks regarding Biosite's new diagnostic product for stroke, which is in early-stage clinical trials and not yet cleared by the FDA.

- 1) Biosite has confirmed a panel test of seven markers, although nine additional markers have been identified. Development times could be lengthened even further if these specs are not yet frozen.
- 2) There is regulatory risk from the FDA, especially given that a panel of multiple markers will generate a "panel response" based on algorithms, rather than specific levels of individual markers.
- 3) At this time, market acceptance of a stroke diagnostic is unclear, notably given the lack of treatment options other than Genentech, Inc.'s Activase, as well as our belief that a lower sense of urgency exists for strokes than for heart attacks.

Market Acceptance for Future Diagnostic Products

We believe there are risks similar to stroke regarding future products such as a panel for shortness of breath, CardioProfilER I, and a panel test for ischemia, including:

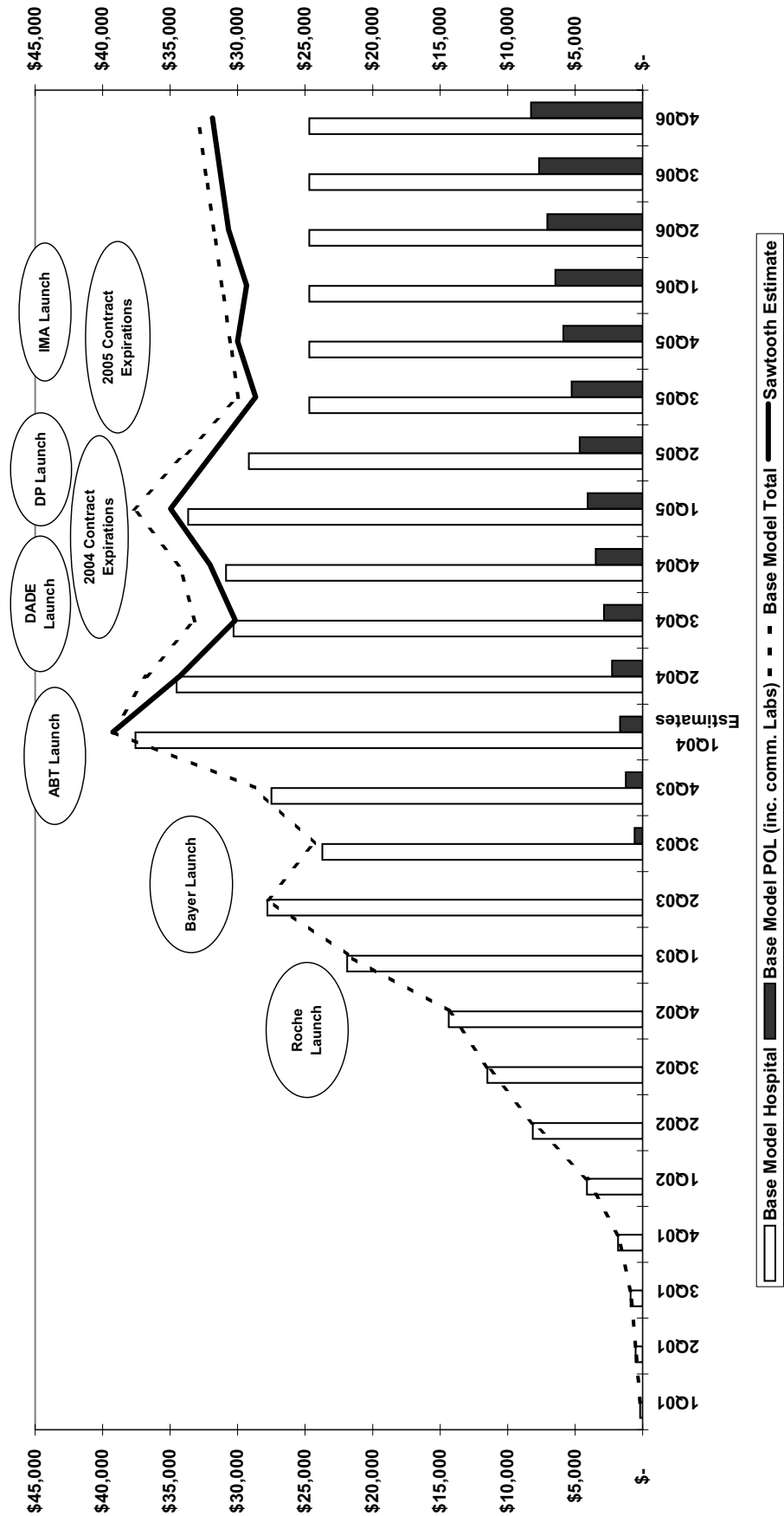
- Development risk, in this case antibody development and assay optimization;
- Regulatory risk from the FDA, especially if a panel of multiple markers will generate a "panel response" based on algorithms, rather than specific levels of individual markers; and
- Market acceptance, although *treatment options for cardiac diseases are much clearer compared to stroke.*

CHF (BNP) Competition Will Only Worsen

Biosite was the first company to commercialize BNP in November 2000. At that time, there was no current blood-based diagnostic product for CHF, and Biosite was forced to independently educate the cardiology, emergency medicine, and pathology (laboratory) physician communities about the potential benefits of this test. BNP sales in 2001 grew modestly; however, strong data confirming the benefits of BNP from a 1,600-patient, international trial known as the Breathing Not Properly study (and its subsequent publication in *The New England Journal of Medicine*) propelled first quarter 2002 sales to \$4 million, and Biosite began adding approximately 100 hospital accounts per month. Today, sales for Biosite's BNP alone are \$39 million *quarterly*, compared with the company's entire *annual* product sales of \$52 million at the time of product launch.

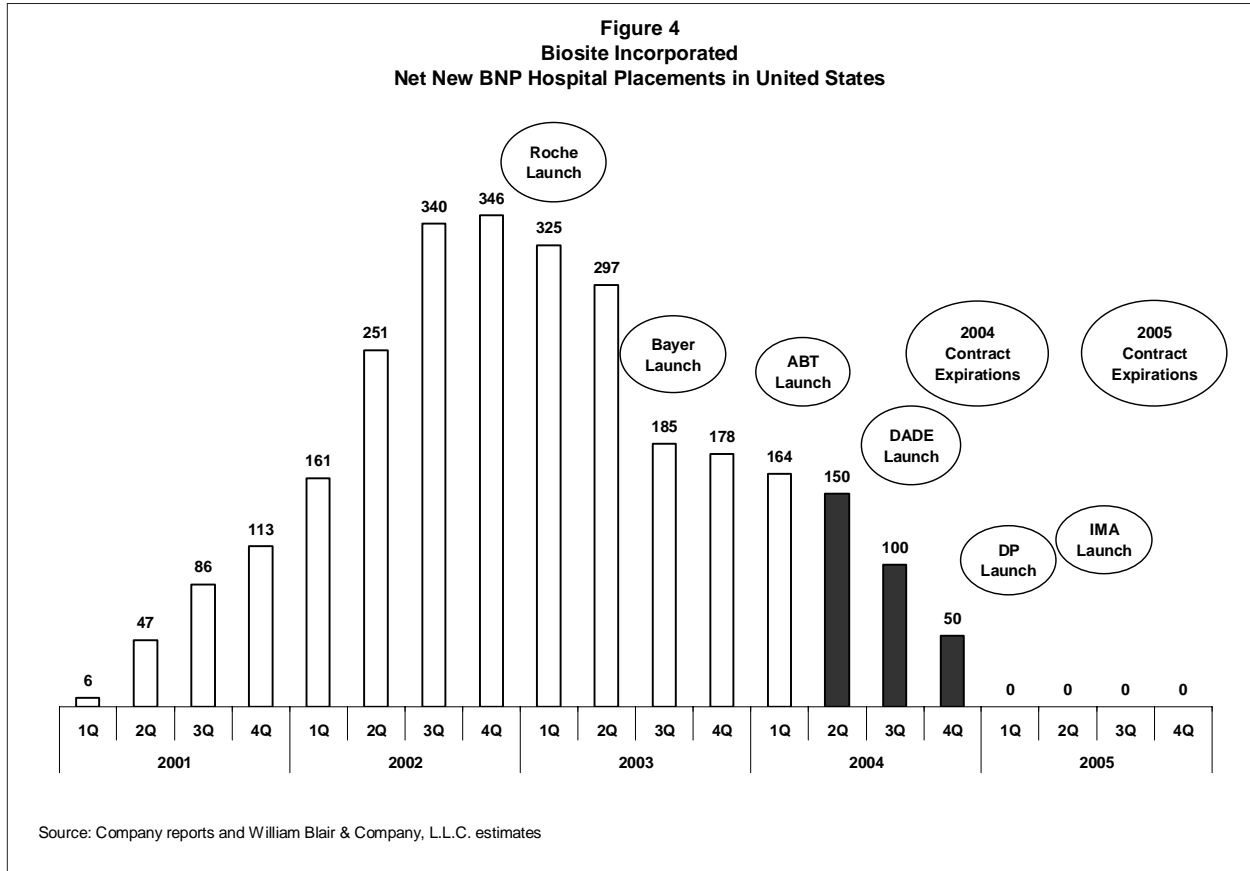
Given the dramatic success of this single assay and the market potential of \$500 million to \$1 billion, several competitors recently launched CHF tests of their own. Biosite is one of three BNP licensees from Scios (since acquired by Johnson & Johnson). Other Scios

Figure 3
Biosite Incorporated
Domestic BNP Revenue Forecast
 (\$ in thousands)



Source: Company reports and William Blair & Company, L.L.C. estimates

licensees included Bayer and Abbott. Roche owns the intellectual property on a different but similar assay called NT-proBNP, a biologically inactive form of BNP. As shown in figure 3, Roche launched NT-proBNP at the end of 2002, Bayer launched the first competitive BNP assay in the summer of 2003, and Abbott launched BNP in early 2004. We refer to our projection as a sawtooth estimate of BNP sales going forward, given future competitive launches. Figure 4 represents our projected hospital placements; we expect *zero net* hospital additions in 2005 due to competition.



Although the Bayer launch of BNP had a dramatic effect on Biosite placements and BNP sales, Abbott’s market entrance has been much more modest. This less-than-perfect launch from Abbott resulted in quite strong first quarter 2004 results for Biosite. The primary reason for increased revenue in the first quarter was better-than-expected BNP sales, due to 1) slower-than-expected impact from Abbott’s BNP launch in February; 2) presumed “seasonality” from a difficult flu season; and 3) additional utilization of BNP testing, potentially driven by more physician awareness. However, despite this improved utilization, we continue to expect a substantial negative impact from Abbott, as well as Dade and Diagnostic Products in future quarters.

Short-term Abbott Situation Still Too Early to Call

Early market intelligence suggests that Abbott’s launch of BNP for its AxSym instrument is surprisingly not making as quick a dent in Biosite’s customer base as Bayer did last summer. Biosite estimates that 350-400 current customers have an Abbott analyzer, and 100-150 are evaluating Abbott’s BNP test. Although Abbott has contacted all of these accounts, few have converted, and the evaluation period is longer due to some issues with Abbott’s test, such as the need to run additional controls. Furthermore, Biosite suggests that Abbott’s test may be unable to categorize CHF patients by NYHA (New York Heart Association) classification. Although BNP is not FDA approved to do this, we believe this is a useful “off-label” application of the test.

The incremental costs to run Abbott's extra controls may be up to \$12 per test, which would negate a nominal price advantage for Abbott's test. Biosite is aware of a price point as low as \$12, and we have heard of prices closer to \$10, likely as part of larger bundles. For accounts that run less than 200 BNP tests per month (which is two-thirds of Biosite's customer base), there appears to be little economic advantage to switch to Abbott's test. However, our field research indicates that Abbott may reduce or eliminate the cost of the extra controls.

We believe Biosite is rightly maintaining and conveying a conservative outlook regarding future BNP sales. The majority of customer erosion from Bayer occurred in the second quarter of Bayer's launch, and we believe that for Abbott this could occur even later in the launch cycle.

Pricing a concern. We believe pricing for BNP is now a much greater concern, especially once Dade and Diagnostic Products launch NT-proBNP tests in third quarter 2004 and early to mid-2005, respectively. Our field research indicates that both Abbott (likely through bundling) and Diagnostic Products would consider using prices near \$10 to secure business. Moreover, while we do not believe that Dade would lead a price decline, we believe the company is comfortable with that level of pricing. With cost of goods sold of roughly \$1 for most automated assays, versus our estimate of \$4 to \$6 for Biosite's (even for the Beckman assay transfer price), lack of price discipline is an increasing possibility, especially with Diagnostic Products in the mix. While we believe that Biosite still would be able to maintain a price premium, we estimate that a steep decline in price could lower its 2005 EPS to between \$1.50 and \$1.90, from our current estimate of \$1.98.

Promising New Product Cycle Starting 2005

We expect revenue growth for Biosite will be challenging in 2004 and parts of 2005, due to the prior reasons cited. However, we are encouraged that Biosite will begin to return to its strategy of focusing on new, novel diagnostic tests targeting large, unmet medical needs. We believe Biosite's focus should be the rapid launch of new products, where the company can leverage its proprietary discovery capabilities and its flexible platform approach.

Triage Stroke

In February, Biosite hosted an upbeat analyst meeting to update investors on its newest, novel diagnostic product, Triage Stroke, which is in midstage clinical development. There are currently no broadly accepted in-vitro diagnostic tests available to aid in the diagnosis of stroke utilizing protein markers from a blood sample. Current methods to diagnose stroke and confirm symptoms utilize imaging, such as a CT scan.

Due to the complexity of stroke and its diagnosis, Biosite is utilizing a panel approach of several markers. After investigating 50 potential markers, Biosite has identified a panel of 7 markers for stroke (having already published on 5), and it has antibodies for an additional 9 novel markers that it is running against its patient samples. *Management insists that testing these additional markers is not expected to significantly alter development and launch timelines.*

Like other Triage tests, a quantitative result would generate a test result in approximately 15 minutes using a small sample of blood. Rather than rely on the physician to remember various cut-off values and interpret seven separate results, Biosite has designed an algorithm that combines all markers and results in one quantitative readout.

Biosite has enrolled 435 patients in its clinical trial at the 10 centers actively enrolling patients. The company expects to add an additional 10 clinical study sites, with the trial conducted worldwide. Biosite intends the study to be completed in time to file a premarket approval (PMA) with the FDA by year-end, and Biosite intends to launch the test in Europe shortly after FDA submission.

Biosite expects Triage Stroke to be an initial test for any patient with symptoms of stroke. If the test confirms a stroke, a CT scan (and other tests) will be run to determine whether the stroke is caused by a blood clot (ischemic) or blood leaking (hemorrhagic). *Given that a typical stroke patient costs as much as \$6,000 per day in the hospital, the negative predictive value of Triage Stroke could be extremely important.*

Exact Timing and Milestones Remain Difficult to Predict

Biosite has been working on a diagnostic product for stroke in excess of six years. Based on expected timing from two years ago, we estimate the product is about one year behind schedule. However, given the complexity of the panel and the novelty of a blood diagnostic for stroke, the delay is not surprising. Based on current company guidance as shown in table 2, on a subsequent page, clinical trial enrollment is expected to proceed over the next few months, with an overall clinical trial duration of four to six months. This would result in an FDA filing by the end of 2004. Because this would be a new diagnostic product (with no adequate equivalent device) Biosite will file a PMA (Class III) application, which we estimate would take about a year for the FDA to evaluate.

Biosite expects FDA approval in the second half of 2005 and an immediate launch in the United States once the device is approved. Moreover, the company intends to launch the product in Europe by the end of 2004 (when they submit data to the U.S. FDA). Although the timing of these milestones seems realistic, we would not be surprised if the FDA filing is not made until 2005, pushing out potential stroke revenue until 2006. In our opinion, the primary reason for a potential delay would be the possible difficulty in recruiting enough patients for the trial—patients who present with stroke symptoms within zero to three hours of onset. Considering that stroke symptoms are often not recognized until several hours (or even days) later, this could prove challenging (hence, the large number of clinical sites).

Stroke Market a High-risk/High-reward Opportunity for Biosite

Large, but challenging potential market. According to the American Hospital Association, National Institutes of Health, and Centers for Disease Control, stroke represents the third-leading cause of death in the United States and the No. 1 cause of adult disability. There are approximately 800,000 new stroke cases annually, which results in 150,000 deaths every year. Importantly, there are in excess of 3 million emergency department visits annually for patients presenting with stroke symptoms. We believe that there are no broadly used or accepted in-vitro diagnostic tests available today to aid in the diagnosis of stroke. Currently, symptoms followed by imaging, such as CT scanning, are used to diagnose stroke. However, our field research indicates that stroke remains a difficult condition to address, due to 1) the lack of awareness regarding stroke symptoms; 2) the current long average time from onset of stroke symptoms until patients seek care; 3) the perceptions by patients and physicians alike regarding the (lack of) treatability of stroke; 4) the actual limited number and efficacy of treatments; and 5) the lack of many “stroke centers” at hospitals, in contrast to chest pain centers for heart attacks.

Difficult to treat. While stroke is a large market, the complexity of the disease has led to multiple failures in the development of drugs to treat or prevent stroke, on the order of approximately 60 failed products in our view over the last 10 years. The only available approved therapy in the United States for acute stroke is Activase from Genentech for thrombolysis, or clot busting, which has been FDA-approved since 1996. However, we

estimate that only 5% of stroke patients receive therapy, due to the requirement that the drug is delivered within 3 hours of stroke onset. We believe that most patients arrive at the hospital after 3 hours—if they even go. Although Activase is successful by restoring blood flow to deprived regions of the brain (thrombolysis), there are no approved drugs that can prevent (neuroprotectants) or minimize the effect of a cascade of biological events that occur due to stroke. In the last decade at least 54 compounds have failed in clinical trials. We believe the primary reason for these failures has been: 1) poor patient characterization, 2) an underestimation of toxicology problems, and 3) using the wrong treatment time windows. Clinical trial design remains an enormous hurdle to success in stroke drug development. Although the Triage Stroke diagnostics likely might aid future stroke trials through improved patient selection, we believe the issues cited above could pose risks to the development of diagnostic products as well.

Substantial market development needed. To address these issues, we believe Biosite would need to be very active in its efforts to increase education of the patient, as well as community hospital emergency rooms and “stroke centers” of excellence. Organizations such as the National Stroke Association, American Stroke Association, and the National Institute for Neurological Disorders and Stroke established the Brain Attack Coalition in 2000 to improve patient awareness. Despite these efforts, some experts believe that the public understanding of stroke symptoms may be analogous to heart attack 20 years ago.

Can Biosite Leverage Its BNP Marketing Expertise?

There are several positive comparisons between BNP and Stroke. Both are novel products that address severe medical conditions that afflict a large number of people and result in millions of annual visits to the emergency department. Like Triage BNP, Triage Stroke essentially would be the first in-vitro diagnostic that utilizes biomarkers to aid in diagnosis. BNP was cleared by the FDA in November 2000; however, Biosite did not report significant sales (\$4 million) until April 2002, roughly five quarters after the initial launch. This was due to a variety of factors, listed below, that Biosite may have since addressed.

Overall company size. Biosite today has revenue 3 times greater than when it launched BNP and, in our view, more resources at its disposal.

Installed base of Triage meters. Biosite only had 500 cardiac accounts when BNP was launched. Currently, the company has 2,335 hospital accounts for BNP alone. We believe that this could accelerate stroke placements given the familiarity with Triage and Biosite’s reputation for developing novel tests.

Sales and marketing staff. Biosite has had a marketing executive in charge of stroke for more than a year. This role did not exist at the time of BNP approval. More importantly, this executive is based in Europe, where the product will launch first.

More-balanced targeting of key constituents. When BNP was launched, Biosite focused exclusively (and correctly) on cardiologists, mostly due to a lack of resources. Regarding stroke, Biosite intends to pursue a broader approach, targeting emergency department physicians and neurologists, as well as the central lab. Regarding Beckman Coulter, Biosite has the choice of whether to partner with Beckman (or other large diagnostic competitors) if the stroke test moves to the central lab or reference laboratories.

Direct salesforce in Europe. Biosite recently switched to a direct salesforce (from distributors) in Europe. We believe the direct salesforce in five countries will better launch a new, important product such as stroke, rather than relying on distributors as it did initially with BNP.

Market segmentation. The label for BNP testing reads that it is only an “aid in the diagnosis of CHF” and to risk stratify ACS patients; there are several potential applications such as drug monitoring or physician office laboratories use. Similar opportunities are present with stroke, given that strokes often occur postsurgery.

Competition. BNP was a licensed protein from Scios, and companies such as Abbott and Bayer had access to this marker as well. At this time, there are only small competitors using well known markers for stroke that we believe are not as specific or sensitive as Biosite’s tests. Biosite has currently filed at least four patents related to Stroke; should its panel approach prove successful, we believe that it will be harder for competitors to imitate BNP.

Despite these benefits to Biosite, our field research indicates that stroke remains a difficult condition to address, due to the lack of awareness regarding stroke symptoms; the current long average time from onset of stroke symptoms until patients seek care; the perceptions by patients and physicians alike regarding the treatability of stroke; the limited number and efficacy of treatments; and the lack of many stroke centers at hospitals. Therefore, although we estimate that the potential market for Biosite’s stroke panel is large, we believe there is still commercial uncertainty as to the ultimate market penetration and realizable size of the opportunity.

Brief Stroke Background

A stroke, or brain attack, occurs when a brain artery becomes blocked or ruptures, cutting off vital supplies of blood and oxygen. Brain cells deprived of oxygen can die within minutes, resulting in a loss of physical and mental functions, such as speech, sight, sense of touch, and thought processing. Damage often is permanent, as the body does not appear to readily replace significant numbers of brain cells. Moreover, there are a wide variety of symptoms, and these conflicting symptoms (and lack of precise diagnostic tools) often result in conditions that “mimic” a potential stroke. Sometimes stroke-like symptoms persist for as long as 24 hours, only to disappear with minimal damage to the patient—known as a transient ischemic attack (TIA). Ischemia means the lack of oxygen to part of the body, typically through loss of blood flow.

To diagnose stroke today, clinicians must rely on a detailed physical examination, CT scan, ECG, or other expensive imaging techniques such as MRI. There are two types of stroke: ischemic (85%) and hemorrhagic (15%). An ischemic stroke is due to blockage of a blood vessel in the brain, whereas hemorrhagic is extreme bleeding in the brain. Ischemic strokes are characterized as either small vessel (25%), thrombolytic (25%), or large vessel (35%). Hemorrhagic strokes are characterized as intracerebral or subarachnoid. The overall 30-day mortality rate for hemorrhagic strokes is higher at 38%, while ischemic strokes have a 30-day mortality rate of 8%.

The stark contrast in these stroke types is of extreme clinical importance: if the stroke is ischemic and diagnosed within three hours of onset, thrombolytic therapies (clot busters) such as Activase can be administered. In the United States, the only approved thrombolytic for stroke is Activase from Genentech. However, if thrombolytics are administered and the stroke is hemorrhagic (extreme bleeding), then the result could be fatal. This situation causes physicians to use extreme caution (and often reluctance) when administering Activase.

Treatments for Stroke

In the United States, only Genentech’s Activase (tPA, alteplase tissue plasminogen activator) is approved to treat acute stroke. It passed the FDA in 1996 to treat acute ischemic stroke, but must be given within the first three hours. Activase works by breaking down the blood clot(s) causing the stroke (thrombolysis), thus restoring blood flow to deprived regions of the brain. However, 6% of stroke patients (who are given the drug properly) suffer

intracerebral hemorrhage after administration of Activase. There are a number of potential therapeutic candidates in the pipeline for stroke. However, we believe that historical failure rates have been high.

Table 1
Biosite Incorporated
Acute Stroke Treatments in Development

Phase	Company	Product	Targets
III	Indevus	CerAxon	Acetylcholine
III	Ono	ONO-2506	Glutamate transporters
III	Renovis / AstraZeneca	Cerovive	Free radicals
III	Yamanouchi	YM872	AMPA receptor
IIb / III	Paion	desmoteplase	Fibrin
IIb	D-Pharm	DP-b99	Calcium ions
IIb	J&J / Lilly	ReoPro	IIb / IIIa
II	Bayer	Repinotan	Serotonin receptor
Pre-clinical	Axaron	AX200	Unknown
Pre-clinical	Vertex / Novartis	VX-608	GSK-3beta kinase

Source: Company releases; Biocentury; William Blair & Company, L.L.C. estimates

Stroke Symptoms

- Paralysis, weakness, or numbness of face, arm, or leg, especially on one side of the body
- Sudden dimness, blurred or decreased vision, particularly in one eye
- Difficulty speaking or understanding speech
- Unexplained dizziness, loss of coordination or sudden falls, especially when combined with other signs
- Sudden or severe headache with no known cause
- Treatable known risk factors for stroke include high blood pressure, cigarette smoking, heart disease, diabetes, and heavy alcohol use.

Table 2
Biosite Incorporated
Summary of Ongoing and Expected Clinical Trials

Abbreviation	Full Name	Objective	Est. Start Date	Sites	No. of Patients	Est. Duration	Expected Results
RACE ACS (Phase I & II)	Rapid Assessment of Cardiac Markers for Evaluation of Acute Coronary Syndrome (ACS)	Use of CardioProfiler in the ED, (emergency department) with and without BNP	Currently enrolling	20	1,000	6 months	1H05 (Phase I)
RABBIT	Rapid Assessment of Bedside BNP in Treatment of CHF	Benefits of using BNP in an outpatient setting to measure disease severity	Currently enrolling	26	720	12-18 months	Interim analysis by end of 2004
Stroke PMA	NA	Prepare stroke diagnostic product for FDA PMA submission	Currently enrolling	20	1,000	6 months	File with FDA 1H05*
REDHOT (Phase II)	Rapid Emergency Department Heart Failure Outpatient Trial	Benefits of BNP to monitor treatment in the hospital and ED	2Q04	10	600	4-6 months	1H05
SOB 510(k)	Triage Shortness of Breath (SOB) Panel	Benefits of panel testing	2H04	5-10	500	6 months	2H05

*Biosite expects to file with the FDA by year-end, we estimate first half 2005

Source: Company reports and William Blair & Company, L.L.C. estimates

Near-term Known Incremental Panel Products

Shortness-of-breath panel. During the first quarter, Biosite submitted a 510(k) to the FDA for its shortness-of-breath, or dyspnea panel-D-dimer, BNP, Troponin I, CK-MB, and Myoglobin, and we expect it to be on the market by the third quarter. Shortness of breath is a symptom that can indicate a number of common, serious diseases, including pulmonary embolism (blood clot in a lung), congestive heart failure, or heart attack.

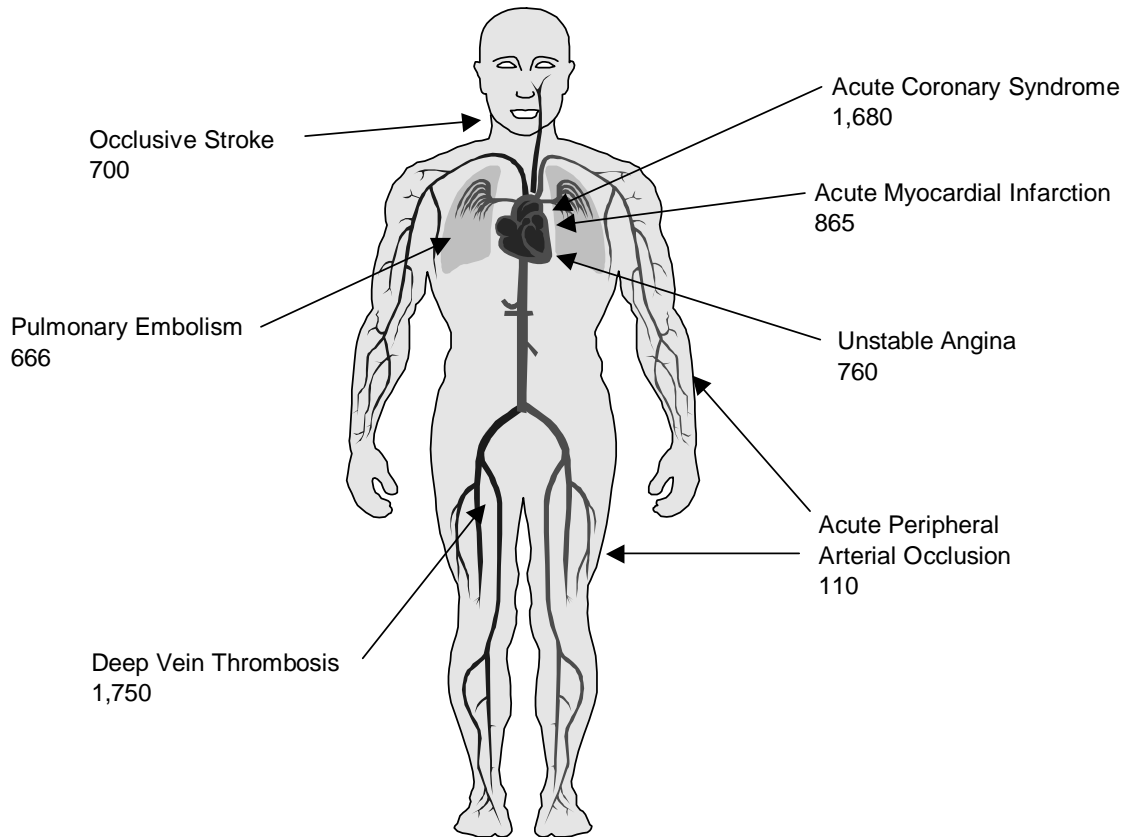
CardioProfiler I and II (ischemia). This summer, Biosite is relaunching its CardioProfiler I for chest pain diagnosis and risk stratification. This is intended to be a two-phase launch: the first with an extended range Troponin I and the second with a novel, mathematical algorithm to interpret the results. However, Biosite has been on a licensing spree to gain access to novel markers of ischemia and risk of plaque disruption, for example MPO from the Cleveland Clinic and cys-albumin from DMI BioSciences. While development of these assays, including clinical studies, normally takes about three years, it is possible that the time line could be shortened, as Biosite already has a large number of validated patient samples in its Discovery program.

Two New Licensing Deals for Cardiac Markers

Thus far in 2004, Biosite has signed two licensing agreements regarding potential future markers of coronary artery disease (CAD). Biosite partnered with the Cleveland Clinic for MPO and with DMI BioSciences to develop and validate a potential marker of cardiac ischemia known as cys-albumin. We believe this deal is an incremental positive for the company for two main reasons: After slow deal flow in 2003, Biosite Discovery (the company's research business developing antibodies to targets) appears to be back on track based on two deals so far in 2004 (DMI and Amylin Pharmaceuticals). We are encouraged that Biosite continues to pursue new, novel markers of disease that could be novel tests or additions to its existing panels for cardiovascular disease. However, we would not anticipate a product from this collaboration until 2006 at the earliest.

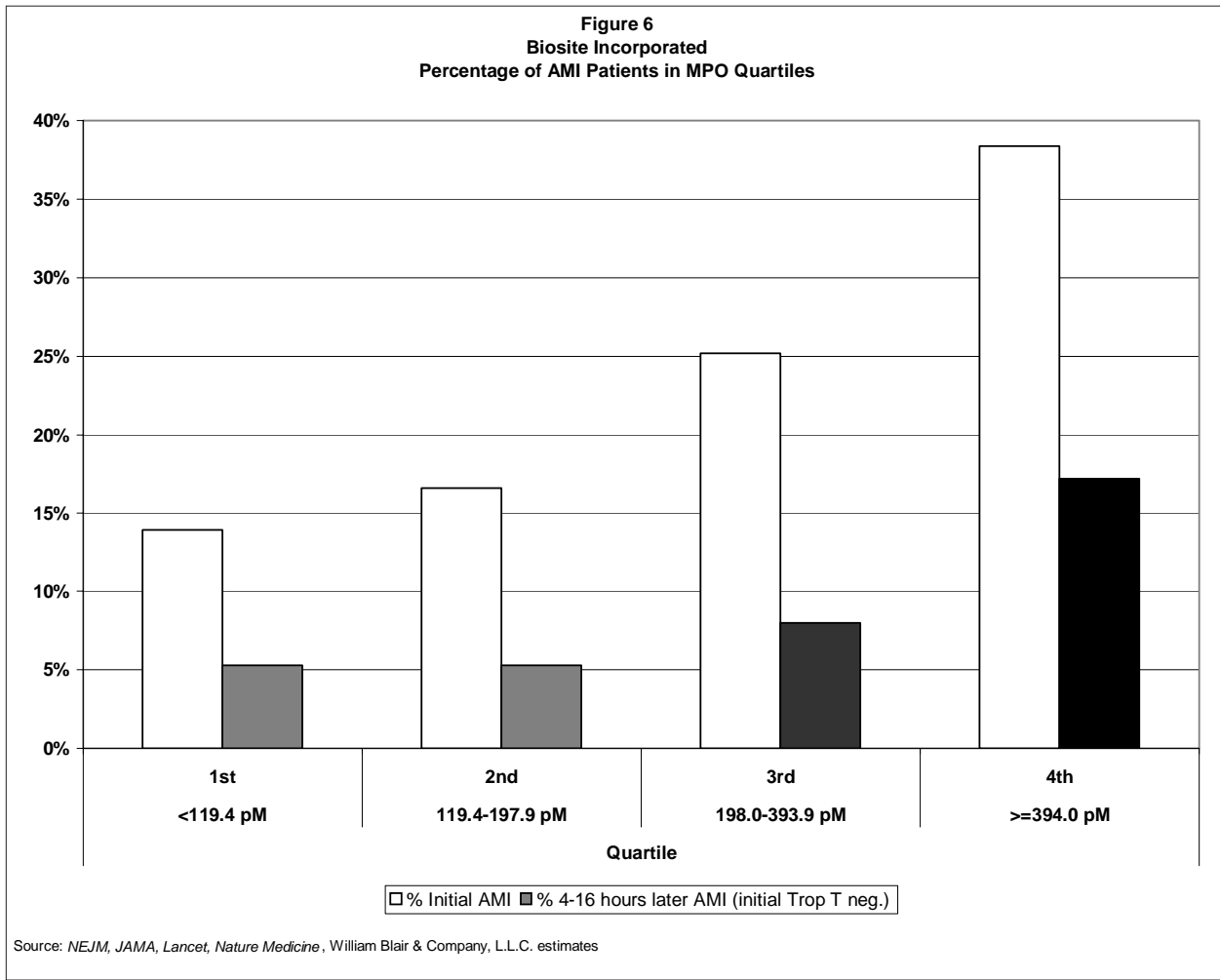
Myeloperoxidase (MPO). Biosite licensed MPO from the Cleveland Clinic. The license is exclusive for point-of-care and semiexclusive for automated diagnostics. A study published recently in the *New England Journal of Medicine*, and confirmed by a larger European study, shows that patients with the highest levels of MPO are at higher risk for heart attack within the first day (16 hours in the study), and heart attack, death, and major heart procedures within one and six months. We believe the new test—if cleared by the FDA—should allow Biosite to maintain or increase the number of placements and pricing for its Triage Cardiac panel for heart attack. However, we would not expect a test to be on the market until the second half of 2005 at the earliest—given six months' test development time and one year regulatory approval—and could reach the market as late as 2007, if approved. In Europe, the test could be on the market up to one year earlier than the United States.

Figure 5
Biosite Incorporated
Estimated Annual Incidence of Ischemic Events in the United States
 (in thousands)

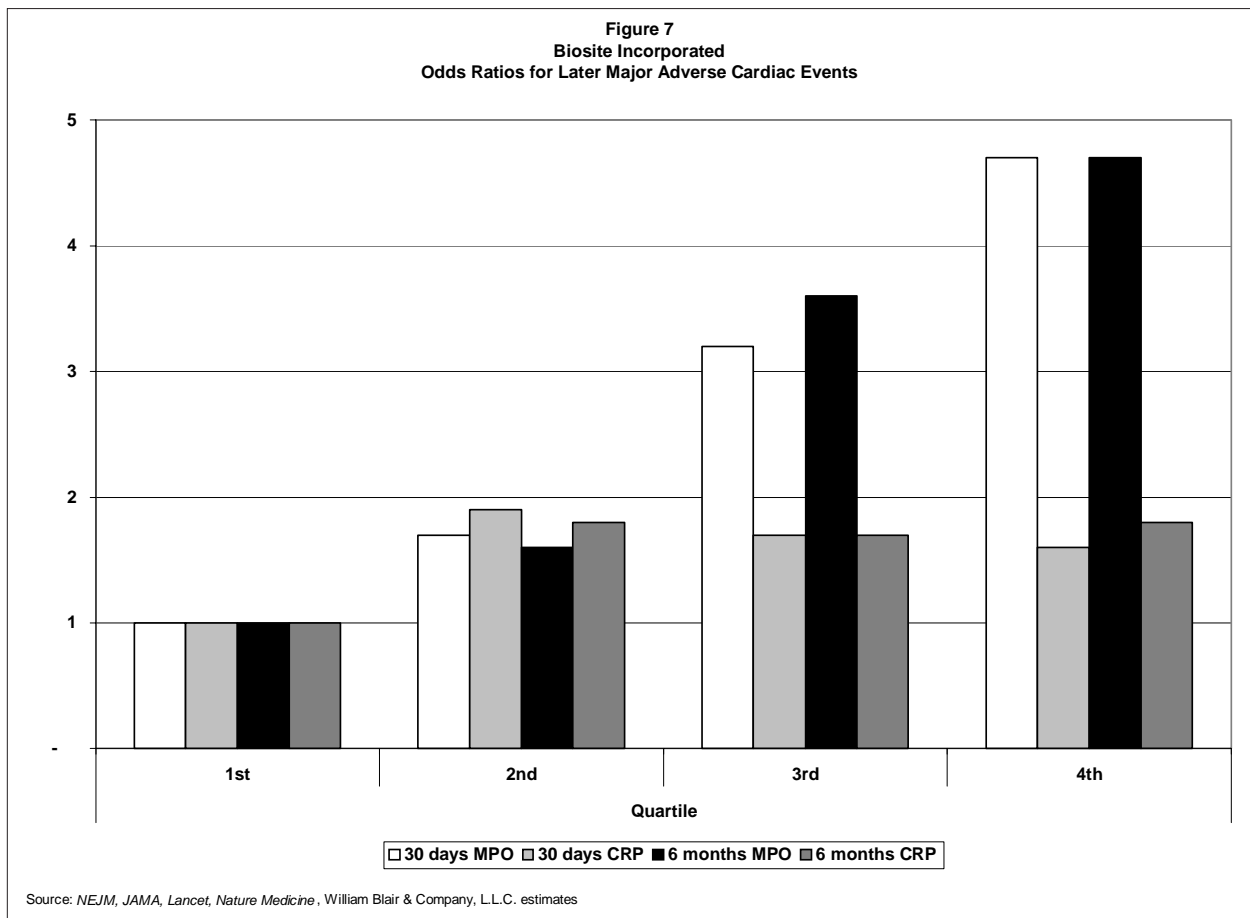


Source: American Heart Association; National Stroke Association; MDI; Wilkerson Group; and William Blair & Company, L.L.C. estimates

MPO is a ubiquitous enzyme in white blood cells (leukocytes) that forms free radicals and oxidants intended to kill microorganisms. However, MPO also can damage a patient's own tissues where the inflammation is occurring. The theory of using MPO as a diagnostics is that it is a possible marker for "plaque vulnerability." By measuring MPO, one should be able to assess the relative activity of the inflammation involved in coronary artery disease (CAD). The interest to Biosite is driven by MPO's apparent ability to risk stratify patients well over 30 days to 6 months, as well as within the first day (16 hours in the *New England Journal of Medicine* study), especially for those patients with chest pain who present with a negative Troponin value, indicating that there has been no heart cell death yet. The data show that the baseline MPO level is elevated in patients who later test positive for Troponin in the ensuing 4 to 16 hours versus those who do not. Moreover, the percentage of patients who later test positive for Troponin increases from 5% in the lowest quartile for MPO to 17% in the highest quartile. These data suggest that MPO would find a potential use in risk stratifying in emergency departments, Biosite's focus.



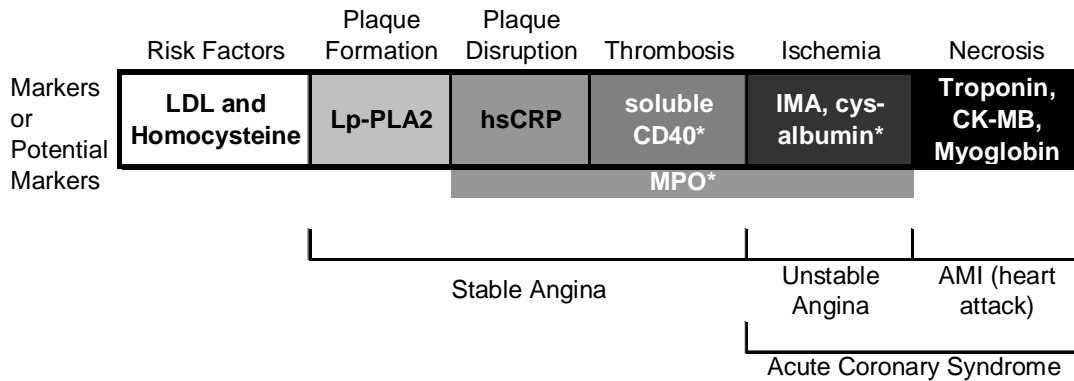
MPO also appears to show strong risk stratifying capabilities for the ensuing one to six months. While a C-reactive protein level elevated above the first quartile seems to confer an odds ratio (likelihood above the baseline set at one) nearing two for major adverse cardiac events, such as AMI, death, or revascularization, within one to six months, the odds ratios for MPO look to rise for each quartile, reaching odds ratios' nearing five for patients in the fourth quartile.



Cys-albumin/DMI BioSciences. Our initial literature search suggests that cys-albumin has not been researched or published extensively compared to other markers such as MPO, which Biosite recently licensed from the Cleveland Clinic. We believe there have been no publications in major medical journals. Furthermore, the chief scientific officer of DMI, an emergency department physician, was the primary author on several initial studies for IMA (ischemia modified albumin), which is already FDA-cleared and we believe is a promising early marker of ischemia developed by a private company, Ischemia Technologies. We believe this deal with DMI *could* be a way around the intellectual property of IMA, or perhaps Biosite believes cys-albumin could be a better marker.

Coronary artery disease (CAD). CAD is a continuum of what appears to be an inflammatory disease that starts with genetic predisposition combined with risk factors, including smoking, hypertension (high blood pressure), hypercholesterolemia (high cholesterol), and diabetes. Earliest-stage risk markers—for which one can take a blood test—include cholesterol, especially LDL (or bad cholesterol), and homocysteine. On the other end of the continuum sits heart attack with cell death (necrosis), for which the acute markers of Troponin, CK-MB, and Myoglobin are used.

Figure 8
Biosite Incorporated
Simplified Progression of Coronary Artery Disease to Heart Attack



* not FDA cleared

Miscellaneous NOTES:

- MPO and cys-albumin recently in-licensed by Biosite

- LDL (low-density lipoprotein) "bad" cholesterol
- Lp-PLA2 (Lipoprotein-associated phospholipase A2) is PLAC test from diaDexus
- hsCRP from Dade Behring and its licensees
- IMA (ischemia modified albumin) test from Ischemia Technologies
- soluble CD40 being developed by Roche

Source: *NEJM, JAMA, Lancet, Nature Medicine*, interviews, William Blair & Company, L.L.C. estimates

As shown in figure 8, the progression from risk factors to heart attack begins with the formation of plaques in the arteries followed by disruption of those plaques that cause the formation of blood clots (thrombosis). This in turn leads to blocking of the arteries and a loss of oxygen to parts of the heart (ischemia). The body's reaction to this process, and even potential driver of parts of the process, is inflammation, which is a response to injury and infection. For each of these phases and inflammation itself, we believe it would be valuable to have diagnostic markers to help with both treatment and to stratify patients by their risk of further progressing and acute major events. To that end, a number of markers have been proposed, some with FDA clearance already. For example, diaDexus has FDA clearance for its PLAC test (LpPLA2) to detect the process by which the plaques form. Dade, and its four licensees, markets a high-sensitivity C-reactive protein assay to measure inflammation. To measure ischemia, aptly named Ischemia Technologies market a test for ischemia-modified albumin. Soluble CD40, a marker on platelets, appears to be a potential marker for the blood clot formation (thrombosis), and a test for MPO appears to be able to measure the immune system events leading up to more-acute phases of the process.

Valuation

After strong first-quarter results, Biosite increased its 2004 guidance to 25%-35% revenue and earnings per share growth. However, due to the effect we anticipate from competition, we forecast an annual decline in EPS in 2005 to \$1.98 from \$2.02 in 2004. Given the current competitive environment for BNP, as well as the continued strong short position in the stock, we anticipate volatile trading for the remainder of 2004 or so. Although EPS growth rates may not reach those of 2004 (more than 20%) until 2006 or 2007, we believe investors may begin to invest in this new cycle of products as early as 2005. Median price-to-earnings multiples of 22 times and P/E-to-growth ratios of 1.5 times for comparable companies suggest that at \$40 per share Biosite is fairly valued, depending on the net effect of competition and ensuing investor sentiment as the company enters its new product cycle. Our Market Perform rating is based on expected 12-month stock performance, but since we anticipate a rocky road for at least 9 of those months, we would advise purchase at current levels only for investors that can endure downside potential into 2005. We believe that trading-oriented or more risk-averse investors could get an opportunity to buy the stock when the risk/reward trade-off is more favorable, but long-term holders could be rewarded once Biosite is through the storm.

Additional information is available upon request.

The full text of this report is available in electronic form to registered users via R*Docs™ at www.rdocs.com or www.williamblair.com.

DJIA:	10380.43
S&P 500:	1132.01
NASDAQ:	1995.60

The prices of the common stock of other public companies mentioned in this report follow:

Abbott	\$43.00
Bayer	\$27.90
Nanogen	\$6.11

Table 3
Biosite Incorporated
In-Vitro Diagnostics Comparables

Name	Ticker	Stock Price		Annual Dividend	Today's Annual Yield	Market Cap.	LTM Sales	M/C (LTM Sales)	2001-2005					3 Year to 2005 CAGR	2004		2005		William Blair Rating		
		6/14/2004	Percent of Year High						Year High	Year Low	2001	2002	2003		2004E	2005E	2003	2004E		2005E	3 Year CAGR
Beckman Coulter	BEC	59.51	97%	61.63	40.00	\$3,987	\$2,282	1.6	\$2.21	\$2.45	\$2.82	\$3.20	\$3.63	13%	21.1	18.6	16.4	1.4	1.2	1.3	
Gen-Probe	GPRO	42.16	92%	46.04	18.81	\$2,074	\$238	8.7	NM	\$0.58	\$0.72	\$0.88	\$1.14	25%	58.6	43.0	37.0	1.7	1.5	1.5	
Dade Behring	DADE	43.46	89%	48.65	22.14	\$1,828	\$1,476	1.2	NA	\$0.36	\$1.15	\$1.40	\$1.71	19%	37.8	31.0	25.4	NM	2.1	0.4	1.7
Diagnostic Products Corp.	DP	41.76	81%	51.63	34.70	\$1,213	\$401	3.0	\$1.94	\$2.29	\$1.98	\$2.32	\$2.70	17%	21.1	18.0	15.5	2.9	1.1	2.7	0.9
Bio-Rad	BIO	57.97	89%	65.00	48.55	\$1,208	\$1,024	1.2	\$1.94	\$2.29	\$3.25	\$3.38	\$3.67	10%	17.8	17.2	15.8	0.8	1.7	0.9	1.6
Dipone	DIGP	35.10	71%	49.45	24.44	\$693	\$93	8.3	-\$0.27	-\$0.51	\$0.06	\$0.60	\$0.98	30%	595.0	58.5	35.8	NM	2.0	NM	1.2
Biosite	BSTE	43.29	75%	57.70	23.50	\$677	\$191	3.5	\$0.57	\$0.86	\$1.50	\$2.02	\$1.98	10%	28.9	21.4	21.9	0.4	2.1	0.7	2.2
Inverness Medical	IMA	19.11	70%	27.40	16.80	\$384	\$322	1.2	-\$0.71	\$0.12	\$0.45	\$0.70	\$1.17	25%	42.5	27.3	16.3	nm	1.1	0.1	0.7
Cepheid	CPHD	9.07	67%	13.56	4.00	\$378	\$22	17.2	-\$0.60	-\$0.69	-\$0.33	-\$0.29	\$0.02	NM	NM	NM	NM	NM	NM	NM	NM
Ataxia	ABAX	19.07	80%	23.85	5.75	\$371	\$47	7.9	\$0.10	\$0.00	\$0.16	\$0.31	\$0.40	30%	119.2	61.5	47.3	1.3	2.1	NM	1.6
Orasure	OSUR	7.76	65%	12.00	6.51	\$343	\$44	7.8	-\$0.09	-\$0.09	-\$0.03	\$0.02	\$0.11	19%	NM	NM	388.0	70.5	NM	NM	3.7
Bovetis	BIOV	11.75	64%	18.45	10.40	\$314	\$20	15.7	NA	NA	-\$1.51	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM
Stratagene	STGN	8.47	71%	12.00	7.51	\$200	\$90	2.2	NA	NA	NA	NA	NA	NA	NM	NM	NM	NM	NM	NM	NM
Quidel	QDEL	5.58	40%	13.98	5.05	\$176	\$90	2.0	\$0.02	\$0.04	\$0.25	\$0.22	\$0.44	30%	22.3	25.4	12.7	0.2	0.8	0.1	0.4
Third Wave Technologies	TWTI	4.30	78%	5.48	3.03	\$173	\$43	4.0	NA	-\$0.60	-\$0.20	-\$0.10	-\$0.03	NA	NM	NM	NM	NM	NM	NM	NM
Mendian	VIVO	10.81	84%	12.90	8.28	\$161	\$72	2.2	\$0.17	\$0.42	\$0.49	\$0.53	\$0.58	10%	22.1	20.4	18.5	0.4	2.0	1.6	1.9
Exact Sciences Corp.	EXAS	6.01	33%	16.00	5.58	\$157	\$4	39.3	-\$1.12	-\$1.51	-\$1.44	-\$0.75	-\$0.51	NM	NM	NM	NM	NM	NM	NM	NM
Virologic	VLGC	2.41	95%	4.40	1.05	\$129	\$35	3.7	-\$1.43	-\$1.38	-\$0.30	-\$0.01	\$0.02	30%	NM	NM	120.5	NM	NM	NM	4.0
Cholestech	CTEC	8.89	69%	12.89	6.20	\$128	\$52	2.4	\$0.34	\$0.39	\$0.28	\$0.21	\$0.36	13%	31.8	42.3	24.7	nm	3.3	nm	1.9
Total						\$14,272	\$6,516	2.2			\$0.12	\$0.42	\$0.58	18%	30.3	27.3	23.3	0.8	1.8	0.9	1.6
Median			71%			\$371	\$83	3.5	\$0.06	\$0.12	\$0.27	\$0.42	\$0.58	18%	45.8%	25.3%	23.3%	0.8	1.8	1.0	1.7
Mean			72%			\$751	\$243	7.0	\$0.22	\$0.30	\$0.51	\$0.80	\$1.08	20%	43.7%	45.5%	34.2	1.1	1.8	1.0	1.7

Source: Reuters, First Call, William Blair & Company, L.L.C. estimates for Dade, Biosite, and Cepheid

Table 4
Biosite Incorporated
Product Revenue Model
(\$ in 000s)

Revenue Model	2001	2002	1Q03	2Q03	3Q03	4Q03	2003	1Q04E	2Q04	3Q04	4Q04	2004E	1Q05	2Q05	3Q05	4Q05	2005E	2006E
DOA	36,970	36,144	9,182	9,035	9,971	8,898	37,086	9,316	9,005	9,373	9,411	37,505	9,445	9,639	9,517	9,517	37,887	38,333
C. difficile	3,467	3,619	846	1,224	1,000	1,088	3,977	1,034	1,000	1,007	1,018	4,104	1,002	1,018	1,021	1,009	4,050	4,060
Parasites	814	837	206	211	285	376	1,078	288	268	272	283	1,111	295	297	284	283	1,160	1,151
Cardiac	16,865	18,463	5,371	4,988	4,802	4,693	19,964	5,480	5,148	5,049	4,834	20,521	5,627	5,277	5,175	4,855	21,034	21,665
BNP	3,420	38,129	22,162	27,817	24,489	28,910	103,398	39,152	36,762	33,172	34,322	143,428	37,727	33,639	29,951	30,551	132,068	128,204
Meters	819	3,638	1,308	491	858	837	3,494	904	773	843	839	3,358	840	824	836	835	3,334	3,333
Cardio/Profiler						301		461	645	759	946	2,811	1,442	1,732	1,497	1,374	6,044	8,483
SOB										43	135	178	268	427	645	759	2,099	2,099
Stroke													22	67	134	213	436	2,787
CP II																		
Incremental Foreign Revenues																		
Total Product Revenues	62,155	100,830	39,095	43,776	41,412	45,015	169,298	56,699	56,496	55,018	54,903	221,016	60,167	57,018	55,429	54,496	225,110	216,701
Discovery	3,685	4,396	846	922	1,358	940	4,066	979	989	1,009	1,038	4,015	1,055	991	1,014	1,016	4,077	4,077
Total Revenues	65,840	105,226	39,941	44,698	42,770	45,955	173,364	57,678	57,486	54,027	55,941	225,031	61,222	58,009	54,443	55,512	229,187	220,778
Year-over-year Growth																		
DOA	4.3%	-1.4%	6.9%	3.8%	-1.3%	1.7%	2.6%	1.5%	4.1%	-6.0%	5.8%	1.1%	1.4%	1.4%	1.4%	1.1%	1.0%	1.2%
C. difficile	40.3%	4.4%	-10.3%	32.2%	-5.5%	26.6%	9.9%	28.6%	-20.3%	11.0%	3.4%	3.2%	-7.9%	4.3%	1.4%	-2.3%	-1.3%	0.3%
Parasites	14.8%	2.8%	4.6%	5.4%	42.5%	56.7%	28.6%	38.8%	26.9%	-4.7%	-24.7%	3.1%	2.6%	11.0%	4.3%	0.0%	4.4%	-0.8%
Cardiac	40.4%	8.8%	56.7%	19.2%	-16.8%	-5.2%	8.1%	2.2%	3.0%	3.0%	3.0%	2.8%	2.5%	2.5%	2.5%	2.5%	2.5%	3.0%
BNP	2530.8%	1014.8%	438.0%	241.6%	150.2%	79.9%	171.2%	76.5%	32.2%	35.5%	18.7%	-38.7%	-3.6%	-8.0%	-9.7%	-11.0%	-7.9%	-2.9%
Meters	-25.5%	344.2%	153.5%	-48.2%	-26.0%	-17.5%	-4.0%	-30.9%	57.3%	-1.8%	0.3%	-3.9%	-7.1%	6.6%	6.6%	-0.5%	-0.7%	0.0%
Cardio/Profiler											214.3%	833.9%	212.7%	168.5%	97.2%	45.2%	115.0%	40.4%
SOB															1400.0%	464.3%	1082.3%	167.6%
Stroke																		539.2%
CP II																		
Incremental Foreign Revenues																		
Total Product Revenues	20.3%	62.2%	119.7%	89.4%	47.4%	41.5%	67.9%	45.0%	29.1%	28.0%	21.7%	30.5%	-64.5%	0.6%	-5.4%	2.8%	1.9%	-3.7%
Discovery	5%	26%	-1%	-50%	65%	7%	-8%	-76%	17%	9%	-24%	-1%	12%	-76%	4%	3%	2%	0%
Total Revenues	19%	60%	114%	79%	48%	41%	65%	44%	29%	26%	22%	30%	-65%	-1%	-5%	2%	2%	-4%
% of Total Revenues																		
DOA	59.0%	35.8%	23.5%	20.6%	24.1%	19.8%	21.9%	16.4%	16.6%	17.7%	17.2%	17.0%	15.7%	16.7%	17.6%	17.5%	16.8%	17.7%
C. difficile	5.6%	3.6%	2.2%	2.8%	2.2%	2.2%	2.3%	1.9%	1.7%	1.9%	1.9%	1.9%	1.7%	1.8%	1.9%	1.9%	1.8%	1.9%
Parasites	1.3%	0.8%	0.5%	0.5%	0.7%	0.8%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%
Cardiac	27.3%	18.3%	13.7%	11.4%	11.8%	10.4%	11.8%	9.7%	9.1%	9.5%	8.8%	9.3%	9.4%	9.3%	9.7%	9.1%	9.3%	10.0%
BNP	5.5%	37.8%	56.7%	63.5%	59.1%	64.2%	61.1%	69.1%	65.1%	62.6%	62.6%	64.9%	62.7%	59.3%	56.1%	56.1%	58.7%	59.2%
Meters	1.3%	3.6%	3.3%	1.1%	2.1%	1.9%	2.1%	1.6%	1.4%	1.6%	1.5%	1.5%	1.4%	1.4%	1.4%	1.5%	1.5%	1.5%
Cardio/Profiler																		
SOB																		
Stroke																		
CP II																		
Incremental Foreign Revenues																		
Total Product Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	#VALUE!	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Discovery	5.3%	4.2%	2.1%	2.1%	3.2%	2.0%	2.3%	1.7%	1.7%	1.9%	1.9%	1.8%	1.7%	1.7%	1.9%	1.8%	1.8%	1.8%
Total Revenues	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Source: Company reports and William Blair & Company, L.L.C. estimates

Table 5
Biosite Incorporated
Summary Income Statement Model
(\$ in 000s)

Income Statement Model	1Q03	2Q03	3Q03	4Q03	2003	1Q04	2Q04E	3Q04E	4Q04E	2004E	1Q05E	2Q05E	3Q05E	4Q05E	2005E	2006E
Net Sales	\$ 39,941	\$ 44,688	\$ 42,770	\$ 45,955	\$ 173,364	\$ 57,678	\$ 54,027	\$ 55,841	\$ 55,841	\$ 225,031	\$ 61,222	\$ 58,009	\$ 54,443	\$ 55,512	\$ 229,187	\$ 220,778
Diagnosics	39,095	43,776	41,412	45,015	169,298	56,699	53,018	54,803	54,803	221,016	60,167	57,018	53,429	54,496	225,110	216,701
Discovery	846	922	1,358	940	4,066	979	1,009	1,038	1,038	4,015	1,055	991	1,014	1,016	4,077	4,077
COGS	13,834	13,638	14,493	16,602	58,567	19,742	18,514	19,186	19,186	77,265	21,205	20,020	18,669	19,070	78,963	73,089
Gross Profit	26,107	31,060	28,277	29,353	114,797	37,936	35,513	36,655	36,655	147,767	40,017	37,990	35,775	36,442	150,224	147,689
S&BA	11,440	13,563	12,435	14,506	51,944	15,883	16,128	16,632	16,632	65,731	18,126	17,234	16,243	16,540	68,144	62,430
R&D	5,274	6,286	6,029	6,975	24,474	7,468	7,441	7,277	7,277	29,302	7,815	7,494	7,137	7,244	29,690	27,701
Other (Legal, ETC)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Operating Expense	16,654	19,819	18,464	21,481	76,418	23,371	24,530	23,223	23,908	95,033	25,941	24,728	23,381	23,784	97,834	90,131
Income From Operations	9,653	11,241	9,813	7,872	38,379	14,565	13,133	12,290	12,746	52,734	14,076	13,262	12,394	12,658	52,390	57,558
Interest and Other Income	310	531	321	274	1,436	194	342	373	367	1,276	357	332	331	331	1,351	1,510
Non-operating Income (Expense)	310	531	321	274	1,436	194	342	373	367	1,276	357	332	331	331	1,351	1,510
Earnings Before Income Taxes	9,763	11,772	10,134	8,146	39,815	14,759	13,475	12,662	13,114	54,010	14,433	13,594	12,725	12,988	53,740	59,068
Provision (Benefit) for Income Taxes	3,797	4,570	3,691	2,994	15,052	5,813	5,120	4,812	4,983	20,728	5,485	5,166	4,835	4,936	20,421	22,446
Net Income	\$5,966	\$7,202	\$6,443	\$5,152	\$24,763	\$8,946	\$8,354	\$7,851	\$8,130	\$33,282	\$8,948	\$8,428	\$7,889	\$8,053	\$33,319	\$36,622
Net Income Per Share Diluted	\$0.37	\$0.43	\$0.38	\$0.32	\$1.50	\$0.55	\$0.51	\$0.47	\$0.49	\$2.02	\$0.54	\$0.50	\$0.47	\$0.48	\$1.98	\$2.13
Weighted Average Shares Outstanding	16,125	16,694	16,964	16,191	16,494	16,366	16,448	16,530	16,613	16,489	16,696	16,779	16,863	16,947	16,821	17,160
Year-over-year Growth																
Total Revenue	114%	79%	48%	40.5%	64.8%	44.4%	28.6%	26.3%	21.5%	29.8%	6.1%	0.9%	0.8%	-0.6%	1.8%	-3.7%
Diagnostic Revenue	120%	89%	47%	41.5%	67.9%	45.0%	29.1%	28.0%	21.7%	30.5%	6.1%	0.9%	0.8%	-0.6%	1.9%	-3.7%
Gross Profit	102%	75%	40%	28.7%	55.8%	45.3%	21.3%	25.6%	24.9%	28.7%	5.5%	0.9%	0.7%	-0.6%	1.7%	-1.7%
Income From Operations	376%	146%	86%	9.1%	101.5%	54.1%	16.8%	25.2%	61.9%	37.4%	-3.4%	1.0%	0.8%	-0.7%	-0.7%	9.9%
Net Income	265%	131%	76%	3.7%	84.9%	49.9%	16.0%	21.8%	57.8%	34.4%	0.0%	0.9%	0.5%	-1.0%	0.1%	9.7%
EPS	245%	115%	60%	1.3%	73.9%	47.7%	17.7%	25.0%	53.8%	34.4%	-1.9%	-1.1%	-1.5%	-2.9%	-1.9%	7.6%
100% Income Statement																
Net Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Diagnosics	97.9%	97.9%	96.8%	98.0%	97.7%	98.3%	98.3%	98.1%	98.1%	98.2%	98.3%	98.3%	98.1%	98.2%	98.2%	98.2%
Discovery	2.1%	2.1%	3.2%	2.0%	2.3%	1.7%	1.7%	1.9%	1.9%	1.8%	1.7%	1.7%	1.9%	1.8%	1.8%	1.8%
COGS (% of Diagnostics)	35.4%	31.2%	35.0%	36.9%	34.6%	34.8%	35.1%	34.9%	35.0%	35.0%	35.2%	35.1%	34.9%	35.0%	35.1%	34.1%
Gross Margin (% of Diagnostics)	64.6%	68.8%	65.0%	63.1%	65.4%	65.2%	64.9%	65.1%	65.0%	65.0%	64.8%	64.9%	65.1%	65.0%	64.9%	65.9%
S&BA	28.6%	30.3%	29.1%	31.6%	30.0%	27.5%	29.7%	29.9%	29.8%	29.2%	29.6%	29.7%	29.8%	29.8%	29.7%	28.8%
R&D	13.1%	14.0%	14.1%	15.2%	14.1%	13.0%	12.9%	13.1%	13.0%	13.0%	12.8%	12.9%	13.1%	13.0%	13.0%	12.5%
Other (Legal, ETC)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total Operating Expense	41.7%	44.3%	43.2%	46.7%	44.1%	40.5%	42.7%	43.0%	42.8%	42.2%	42.4%	42.6%	42.9%	42.8%	42.7%	39.3%
Income From Operations	23.7%	25.1%	22.9%	17.1%	22.1%	25.3%	22.8%	22.7%	22.8%	23.4%	23.0%	22.9%	22.8%	22.8%	22.9%	31.1%
Interest and Other Income	0.8%	1.2%	0.8%	0.6%	0.8%	0.3%	0.6%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Contract Revenue	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Non-operating Income (Expense)	0.8%	1.2%	0.8%	0.6%	0.8%	0.3%	0.6%	0.7%	0.7%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Earnings Before Income Taxes	24.4%	26.3%	23.7%	17.7%	23.0%	25.6%	23.4%	23.4%	23.5%	24.0%	23.6%	23.4%	23.4%	23.4%	23.4%	31.7%
Provision (Benefit) for Income Taxes	38.9%	38.8%	36.4%	36.8%	37.8%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%	38.0%
Net Income	14.9%	16.1%	15.1%	11.2%	14.3%	15.5%	14.5%	14.5%	14.8%	14.8%	14.6%	14.5%	14.5%	14.5%	14.5%	19.6%

Source: Company reports and William Blair & Company, L.L.C. estimates

Table 6
Biosite Incorporated
Balance Sheet and Cash Flow Estimates
(\$ in 000s)

	2001	2002	2003	2004	2005	2006
Current assets:						
Cash and Cash Equivalents	\$ 13,011,000	\$ 19,113,000	\$ 19,537,000	\$ 28,695,570	\$ 31,338,514	\$ 33,139,745
Marketable Securities	42,486,000	51,783,000	34,397,000	34,365,000	34,365,000	34,365,000
Accounts Receivable	8,254,000	10,996,000	23,755,000	18,084,953	17,983,533	18,509,925
Income Taxes Receivable	155,000	-	2,203,000	2,491,151	2,476,985	3,089,680
Inventory	7,117,000	12,295,000	27,780,000	23,982,133	23,837,534	23,133,009
Deferred Income Taxes	1,329,000	2,753,000	4,076,000	4,982,302	4,953,969	6,179,360
Prepaid Expenses and Other Current Assets	1,450,000	1,821,000	3,255,000	6,736,719	7,080,431	7,094,073
Total current assets	73,802,000	98,761,000	115,003,000	119,337,827	122,035,966	125,510,792
Plant, Property, and Equipment						
Net PP&E	13,840,000	19,864,000	71,408,000	101,112,700	132,624,394	166,039,867
Deferred Income Taxes	4,207,000	1,125,000	-	-	-	-
Patents and License Rights	9,208,000	7,899,000	6,771,000	6,078,218	5,606,355	5,171,123
Deposits and Other Assets	1,683,000	3,605,000	1,442,000	1,326,114	1,173,999	1,039,333
Total Assets	102,740,000	131,254,000	194,624,000	227,854,858	261,440,714	297,761,115
Current Liabilities:						
Accounts Payable	2,326,000	3,789,000	6,905,000	8,153,925	8,104,762	7,865,223
Accrued Salaries and Other	3,953,000	8,149,000	11,103,000	9,563,393	9,513,752	9,089,964
Accrued Contract Payable	-	-	-	-	-	-
Accrued Settlement of Patent Matters	-	-	-	-	-	-
Income Taxes Payable	-	2,151,000	-	-	-	-
Deferred Revenue from Stockholder	-	1,747,000	1,456,000	-	-	-
Current Portion of Long-term Obligations	2,008,000	2,224,000	4,664,000	4,609,163	4,427,543	4,253,081
Total Current Liabilities	8,287,000	18,060,000	24,128,000	22,326,481	22,046,057	21,208,268
Long Term Commitments and Contingencies	3,542,000	5,253,000	17,593,000	18,436,651	17,710,174	17,012,322
Total Liabilities	11,829,000	23,313,000	41,721,000	40,763,132	39,756,230	38,220,590
Stockholders' equity						
Convertible Preferred Stock						
Common Stock	146,000	149,000	156,000	156,703	157,645	158,593
Additional Paid-in Capital	75,891,000	79,544,000	99,821,000	101,042,957	102,260,940	103,493,605
Unrealized net gain (loss) on marketable securities	405,000	385,000	300,000	-	-	-
Deferred Compensation	-	-	-	-	-	-
Retained Earnings (Deficit)	14,469,000	27,863,000	52,626,000	85,892,066	119,265,898	155,888,327
Total Stockholders' Equity	90,911,000	107,941,000	152,903,000	187,091,726	221,684,484	259,540,525
Total Liabilities and Equity	102,740,000	131,254,000	194,624,000	227,854,858	261,440,714	297,761,115
STATEMENT OF CASH FLOWS						
Cash from Operating Activities:						
Net Income	6,726,000	13,394,000	24,763,000	33,266,066	33,373,832	36,622,429
Reconciliation of Net Income to Net Cash:						
Depreciation and Amortization	4,173,000	6,029,000	10,515,000	10,725,300	10,939,806	11,158,602
Amortization of Deferred Compensation	50,000	16,000	20,000	-	-	-
Deferred Income Taxes	532,000	1,658,000	1,641,000	(1,194,452)	42,499	(1,838,087)
Changes in Operating Assets and Liabilities:						
Accounts Receivable	3,540,000	(2,742,000)	(12,759,000)	5,670,047	101,419	(526,391)
Receivable from Stockholders	-	-	-	-	-	-
Inventory	(672,000)	(5,178,000)	(15,485,000)	3,797,867	144,599	704,525
Prepaid Expenses and Other Current Assets	5,450,000	2,289,000	1,471,000	(3,481,719)	(343,712)	(13,643)
Accounts Payable	1,033,000	1,463,000	3,116,000	1,248,925	(49,164)	(239,538)
Accrued Liabilities	850,000	4,441,000	2,007,000	(1,539,607)	(49,641)	(423,787)
Deposits and Other Assets	-	1,502,000	2,366,000	115,886	152,115	134,666
Deferred Revenue from Stockholders	-	-	(504,000)	(1,456,000)	-	-
Net Cash Provided by Operating Activities	21,682,000	22,872,000	17,151,000	47,152,313	44,311,754	45,578,776
Cash from Investing Activities						
Proceeds from Sales of Marketable Securities	44,865,000	31,408,000	40,941,000	-	-	-
Purchase of Marketable Securities	(52,136,000)	(40,739,000)	(22,867,000)	-	-	-
Net proceeds (purchase) of Marketable Securities	(7,271,000)	(9,331,000)	18,074,000	(268,000)	-	-
Purchase of Property, Equipment	(6,583,000)	(10,742,000)	(58,674,000)	(40,430,000)	(42,451,500)	(44,574,075)
Patents, License Rights Deposits and Other Assets	(2,576,000)	(1,655,000)	(106,000)	692,782	471,863	435,232
Net Cash Provided by Investing Activities	(16,430,000)	(21,728,000)	(40,706,000)	(40,005,218)	(41,979,637)	(44,138,843)
Financing Activities:						
Proceeds from the Issuance of Convertible Debt	-	-	12,329,000	-	-	-
Proceeds from Loans Payable	1,951,000	3,952,000	14,850,000	843,651	(726,478)	(697,852)
Principal Payments Under Long-term Obligations	(2,133,000)	(2,025,000)	(3,200,000)	(54,837)	(181,619)	(174,463)
Proceeds from Issuance of Stock, Net	6,141,000	3,031,000	-	1,222,661	1,218,925	1,233,612
Repurchase of common stock, Net	-	-	-	-	-	-
Net Cash Provided by Financing Activities	5,959,000	4,958,000	23,979,000	2,011,475	310,828	361,298
Increase in Cash and Cash Equivalents	11,211,000	6,102,000	424,000	9,158,570	2,642,945	1,801,231
Cash and Cash Equivalents at Beginning of Period	1,800,000	13,011,000	19,113,000	19,537,000	28,695,570	31,338,514
Cash and Cash Equivalents at End of Period	13,011,000	19,113,000	19,537,000	28,695,570	31,338,514	33,139,745

Source: Company reports and William Blair & Company, L.L.C. estimates



William Blair & Company, L.L.C. is a market maker in the security of this company and may have a long or short position.

Current Rating Distribution (as of 5/31/04)

Coverage Universe	Percent	Inv. Banking Relationships*	Percent
Outperform (Buy)	61%	Outperform (Buy)	5%
Market Perform (Hold)	31%	Market Perform (Hold)	3%
Underperform (Sell)	8%	Underperform (Sell)	1%

*Percentage of companies in each rating category that are investment banking clients, defined as companies for which William Blair has received compensation for investment banking services within the past 12 months.

Winton Gibbons attests that 1) all of the views expressed in this research report accurately reflect his personal views about any and all of the securities and companies covered by this report, and 2) no part of his compensation was, is, or will be related, directly or indirectly, to the specific recommendations or views expressed by him in this report.

Stock Rating: William Blair & Company, L.L.C. uses a three-point system to rate stocks. Individual ratings reflect the expected performance of the stock relative to the broader market over the next 12 months. The assessment of expected performance is a function of near-term company fundamentals, industry outlook, confidence in earnings estimates, valuation, and other factors. Outperform (O) – stock expected to outperform the broader market over the next 12 months; Market Perform (M) – stock expected to perform approximately in line with the broader market over the next 12 months; Underperform (U) – stock expected to underperform the broader market over the next 12 months; Not Rated (NR) – the stock is currently not rated.

Prior to September 3, 2002, William Blair & Company, L.L.C. used a four-point numerical system to rate stocks. Investment ratings reflect the expected performance of the stock relative to the market over the next 12 to 18 months: 1 – Strong Buy (Significant Outperformance); 2 – Long-term Buy (Outperformance); 3 – Hold (Market Average Performance); 4 – Sell (Underperformance).

Company Profile: The William Blair research philosophy is focused on quality growth companies. Growth companies by their nature tend to be more volatile than the overall stock market. Company profile is a fundamental assessment, over a longer-term horizon, of the business risk of the company relative to the broader William Blair universe. Factors assessed include: 1) durability and strength of franchise (management strength and track record, market leadership, distinctive capabilities); 2) financial profile (earnings growth rate/consistency, cash flow generation, return on investment, balance sheet, accounting); 3) other factors such as sector or industry conditions, economic environment, confidence in long-term growth prospects, etc. Established Growth (E) – Fundamental risk is lower relative to the broader William Blair universe; Core Growth (C) – Fundamental risk is approximately in line with the broader William Blair universe; Aggressive Growth (A) – Fundamental risk is higher relative to the broader William Blair universe.

The ratings and company profile assessments reflect the opinion of the individual analyst and are subject to change at any time.

William Blair & Company, L.L.C. and its affiliates may trade for their own accounts as market maker, may have a long or short position in any securities of this issuer or related investments, and/or may be the opposite side of public orders.

The compensation of the research analyst is based on a variety of factors, including performance of his or her stock recommendations; contributions to all of the firm's departments, including asset management, corporate finance, institutional sales, and retail brokerage; firm profitability; and competitive factors.

THIS IS NOT IN ANY SENSE A SOLICITATION OR OFFER OF THE PURCHASE OR SALE OF SECURITIES. THE FACTUAL STATEMENTS HEREIN HAVE BEEN TAKEN FROM SOURCES WE BELIEVE TO BE RELIABLE, BUT SUCH STATEMENTS ARE MADE WITHOUT ANY REPRESENTATION AS TO ACCURACY OR COMPLETENESS OR OTHERWISE. OPINIONS EXPRESSED ARE OUR OWN UNLESS OTHERWISE STATED. FROM TIME TO TIME, WILLIAM BLAIR & COMPANY, L.L.C. OR ITS AFFILIATES MAY BUY AND SELL THE SECURITIES REFERRED TO HEREIN, MAY MAKE A MARKET THEREIN AND MAY HAVE A LONG OR SHORT POSITION THEREIN. PRICES SHOWN ARE APPROXIMATE. THIS MATERIAL HAS BEEN APPROVED FOR DISTRIBUTION IN THE UNITED KINGDOM BY WILLIAM BLAIR INTERNATIONAL, LIMITED, REGULATED BY THE FINANCIAL SERVICES AUTHORITY (FSA), AND IS DIRECTED AT, AND IS ONLY MADE AVAILABLE TO, AUTHORIZED PERSONS AND OTHER PERSONS FALLING WITHIN COB 3.2.5(1)(b) OF THE FSA HANDBOOK, AND MAY NOT BE PASSED ON TO PRIVATE CUSTOMERS IN THE UNITED KINGDOM. ANY UNAUTHORIZED USE IS PROHIBITED. "WILLIAM BLAIR & COMPANY" AND "WILLIAM BLAIR & COMPANY (SCRIPT)" ARE REGISTERED TRADEMARKS OF WILLIAM BLAIR & COMPANY, L.L.C. Copyright 2004, William Blair & Company, L.L.C.

EQUITY RESEARCH DIRECTORY

Bob Newman, CFA, Principal Manager and Director of Research 312.364.8783

BUSINESS SERVICES

Joe LaManna, CFA, Principal 312.364.8280
Group Head–Business Services
Collection Companies, Information Services

Industrial Growth

Jeff Germanotta 312.364.5411
Industrial Products and Distribution, Logistics

Media & Marketing

Alissa Goldwasser, CFA 312.364.8852
Media and Media Services

Troy Mastin 312.364.5415
Advertising and Marketing Services

Technology & Professional Services

Matthew Litfin, CFA, Principal 312.364.8293
Education & Training, Consulting & Staffing, Commercial Services

John Neff, CFA 312.364.8914
Collection Companies, Information Services

Bruce Simpson, CFA 312.364.8177
IT Distribution, Data Services, Commercial Services

Franco Turrinelli, CFA, Principal 312.364.8166
Technology Services, Payments Infrastructure

CONSUMER

David Ricci, CFA, Principal 312.364.8030
Group Head–Consumer
Home Furnishings, E-commerce, Specialty Retail

Mark Miller, CFA, Principal 312.364.8498
Discount Stores, Drug and Food Retailers

Bob Simonson, CFA 312.364.8972
Cruise Lines, Leisure, Motorsports, Specialty Retail

Sharon Zackfia, CFA 312.364.5386
Restaurants, Specialty Retail

FINANCIAL

Joel Gomberg, CFA, Principal 312.364.8913
Group Head–Financial
Consumer Finance, Financial Services

Mark Lane, Principal 312.364.8686
Asset Management, Specialty Insurance

HEALTH CARE

Winton Gibbons, Principal 312.364.8371
Group Head–Health Care
Therapeutics, Diagnostics, Life Sciences

Ben Andrew, Principal 312.364.8828
Medical Devices

Ryan Daniels 312.364.8418
Specialty Providers and Disease Management

John Kreger, Principal 312.364.8597
Pharmaceutical Outsourcing, Distribution

Richard Watson 312.364.8016
Specialty and Generic Pharmaceuticals

TECHNOLOGY

David Farina, CFA, Principal 312.364.8918
Group Head–Technology
Software, Payroll Services

Hardware

Jeff Rosenberg, CFA, Principal 312.364.8342
Electronic Components, Contract Manufacturers

Software & Services

Laura Lederman, CFA, Principal 312.364.8223
Business Software, IT Services

Corey Tobin 312.364.5362
Health Care IT and Specialty Software

Telecommunications

Bill Benton, CFA 312.364.8355
Communications and Industrial Technology

EDITORS

Brian Beamer 312.364.8610
Steve Goldsmith 312.364.8540
Beth Pekol 312.364.8924

William Blair & Company

Investment Banking ■ Asset Management ■ Equity Research ■ Institutional & Private Brokerage ■ Private Capital

William Blair & Company, L.L.C. 222 West Adams Street Chicago, Illinois 60606 312.236.1600 www.williamblair.com

CHICAGO HARTFORD LONDON SAN FRANCISCO TOKYO VADUZ ZURICH