

LABORATORY INDUSTRY REPORT®

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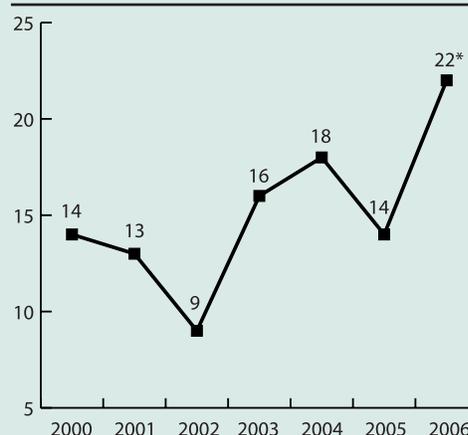


A Booming '06 For Lab M&A, But With Smaller Buys

Worldwide merger and acquisition (M&A) activity is at an all-time high. The mid-November private equity buyout of Clear Channel Communications pushed this year's global announced M&A volume to \$3.4 trillion, just over the \$3.3 trillion record set in 2000, according to Dealogic. Consolidation in the clinical laboratory industry has continued its generally strong and aggressive pace in 2005 and 2006, as 36 mergers or acquisitions have been completed or are on track to close in the 24-month period between January 2005 and December 2006.

In 2005, there were 14 M&As, and by the end of this year, a total of 22 M&As will likely be completed. Compared to 18 M&As in 2004 and 16 M&As in 2003, it is clear that M&A activity continues to be a force in the clinical laboratory industry, particularly among small and midsize laboratories. However, the 2004 mergers were, in general, not particularly large acquisitions, with the exception of Genzyme Genetics's acquisition of Impath for \$215 million. For an in-depth look at laboratory M&A activity, see *Inside the Laboratory Industry*, pp. 5-7. 🏠

Laboratory Mergers, Acquisitions, and IPOs (2000-2006)



Source: Washington G-2 Reports
*pending expected fourth quarter 2006 closings

Tm Bioscience On The Block

Genetic testing firm Tm Bioscience (Toronto, Canada), best known for its Tag-It assays and analyte specific reagents (ASRs), is exploring a possible sale or merger, and it might make a perfect holiday gift for a large commercial laboratory looking to strengthen its pipeline and presence in high-margin esoteric and genomic testing.

■ Tm Bioscience, from page 1

“We have recently received several inquiries,” said Paul M. Lucas, chairman of Tm Bioscience. “We believe this indication of interest demonstrates that it is an ideal time to explore our options.” The company’s board of directors has established a special subcommittee to consider “strategic alternatives to enhance shareholder value” and has retained financial advisors from two investment banks.

Although Quest Diagnostics (Lyndhurst, NJ) spent \$185 million to acquire esoteric testing powerhouse Focus Diagnostics (Herndon, VA) in July, Tm Bioscience might be too good to pass up, particularly as the largest lab provider licks its wounds after losing the multibillion dollar United Healthcare contract to LabCorp (Burlington, VA). While Focus made a name for itself with gold standard infectious disease testing, such as its HerpesSelect assays, Tm Bioscience offers another way for Quest to make further inroads into the DNA-based diagnostics market, which is estimated to exceed \$10 billion by 2010. The company boasts an industry leading cystic fibrosis (CF) testing franchise and an appealing platform technology.

Tm Bioscience is developing DNA-based tests for genetic disorders, pharmacogenomics, and infectious diseases. Its Tag-It assays and ASRs are based on a platform that uses a universal tag system. The company’s CF test is the first multiplexed human disease genotyping test to be cleared by the FDA as an in vitro device for diagnostic use in the United States. The test simultaneously screens for the 23 CFTR gene mutations and four polymorphisms recommended by the American College of Medical Genetics and American College of Obstetricians and Gynecologists, plus 16 of the world’s most common and North American-prevalent mutations.

Management expects FDA clearance “in the near term” for the ID-Tag Respiratory Viral Panel, which has recently received CE mark status and can now be marketed for diagnostic purposes in Europe and other countries that recognize the CE mark. Like Third Wave Technologies (Madison, WI), Tm Bioscience has developed a companion test for the blood-thinning drug warfarin. Initial modest sales of an IUO version of this product were recorded during the third quarter, and FDA clearance is expected early next year. Also in the works is a test for patients that are being treated for sepsis.

In the third quarter of this year, Tm Bioscience posted revenue of \$2.6 million compared to \$2.2 million for the third quarter of the previous year, an increase of 19%. For the first nine months of 2006, the company’s revenue grew by 63%, from \$8.6 million to \$5.3 million. ▲

Carilion Labs Nears Close On Presbyterian, More Acquisitions Coming

This month, Carilion Labs (Roanoke, VA), part of the Carilion Clinic (formerly Carilion Health System), will close on their acquisition of Presbyterian Reference Laboratory (Charlotte, VA). Carilion Labs expects to nearly double the size of their laboratory operations when they complete the purchase of the Presbyterian lab. Carilion Labs currently performs tests on approximately 3.3



Bud Thompson

million samples. The acquisition of Presbyterian is expected to increase their sample volume by two million. Carilion employs 420 full-time equivalents and expects to bring on another 180 with the acquisition.

Presbyterian Reference Labs is a division of Novant Health System based in Winston, North Carolina. Presbyterian will retain minority ownership of the lab and be represented on Carilion Labs's board. Carilion has shown a compound growth rate of more than 20% over the last four years. With the acquisition of Presbyterian, they expect their annual net revenue to approach \$100 million.

Bud Thompson, executive vice president of Carilion Clinic and chief executive of Carilion Labs, notes that there were two key factors involved in moving on this acquisition. "One is that we are a market share leader for hospital care in all the markets that we operate in. Therefore, the long-term potential to increase our market and increase our revenue by increasing market share is an uphill battle because we already are the market share leader. We're more at risk of losing market share than our ability to pick up market share. If we're not going to

increase revenue over time through market share, then the other option is through population growth—the population just gives it to you." However, the Roanoke area is a slow-growth community and in and of itself isn't likely to grow healthcare revenue. The Charlotte area, however, where Presbyterian Reference Labs is located, is a high-growth area. In addition, Charlotte has a more developed airport than the Roanoke area.

Secondly, Thompson notes that both Novant Health System and the Carilion Health System send out a tremendous amount of work to their respective reference laboratories. "Through the consolidation of our two health system labs into a single lab company, there is a lot of volume we can now internalize. As we continue to grow our volume, we can economically justify internalizing more of the esoteric test menu."

The Presbyterian acquisition is not the end of the road for Carilion. There are at least two more

acquisitions pending for 2007, although they can't yet be divulged because of confidentiality agreements. Bud Thompson says, "We have one signed letter of intent with a lab that we're contemplating being able to close on in the second quarter of the next calendar year. There is another lab that we have a signed term sheet for—that's a level beyond the letter of intent. We're contemplating closing on that transaction early in the first quarter of the next calendar year."

Thompson indicates that the planned acquisitions, as well as others in their development pipeline, are a mix of regional labs that are a part of other health

At a Glance

Carilion Labs, an affiliate of Carilion Clinic

Headquarters: Roanoke, VA

Leadership: Edward G. Murphy, M.D., President and Chief Executive, Carilion Clinic

Bud Thompson, Executive Vice President, Carilion Clinic; Chief Executive, Carilion Labs

Eugene Bustria, Senior Vice President of Operations, Carilion Labs

Annual Volume: 3.3 million units

Annual Volume after Presbyterian Acquisition: 5.3 million units

Current FTE: 420

FTE after Presbyterian Acquisition: 600

Projected Combined Annual Revenue: \$100 million

Source: Carilion Labs

systems and private labs. Carilion Labs also acquired Rockbridge Medical Laboratory in June of this year. Thompson says, “In time, the area where I think we will differentiate ourselves is as a provider-owned laboratory company. All of our acquisitions contemplate leaving behind, as part of the acquisitions, a mixture of cash and equity. We have an alignment of financial interests with those health systems or current lab operators. We think that through the provider relationship, we can create value that will be more comprehensive in terms of the patient experience.” 🏠

Panacea Pharmaceuticals Spins Off Reference Lab

Panacea Pharmaceuticals (Gaithersburg, MD) has spun off a reference lab. Known as Panacea Laboratories (Gaithersburg, MD), it will provide blood, serum, and tissue tests to diagnose and monitor cancer in its 11,000-square-foot, CLIA-compliant facility.

Panacea Laboratories recently launched its first product, an assay called TK Sense. The test uses RT-PCR to measure expression of the gene encoding human aspartyl beta-hydroxylase (HAAH) in the leukocytes of patients with chronic myelogenous leukemia (CML). The assay identifies those patients unlikely to respond to treatment with imatinib mesylate, known by the trade name Gleevec. List price for the test is \$500.

Gleevec, which is recognized as the most effective nontransplant treatment for CML, costs about \$35,000 per year. “Identifying patients with a low likelihood of responding to Gleevec may avoid potentially serious adverse effects, hasten the initiation of potentially more beneficial treatment, and save considerable costs,” says Stephen Keith, M.D., president and chief operating officer of Panacea Pharmaceuticals.

Expression of the gene encoding HAAH significantly decreases when the leukocytes of CML patients are cultured in the presence of Gleevec, so the TK Sense test compares HAAH gene expression following culture in the presence of Gleevec with expression in the absence of the drug. Test results are reported as a percentage decrease in gene expression. A decrease in HAAH gene expression level correlates with drug response. Nonresponders to Gleevec treatment do not show a decrease in HAAH expression in the assay.

Next up for Panacea are serum HAAH tests to diagnose and monitor prostate, liver, lung, and cervical cancer. The first of these tests should be available early next year. Additionally, the company is developing HAAH gene expression tests to monitor minimum residual disease (MRD) in patients following treatment for various leukemias. Also in the works are antibodies directed against HAAH as novel agents for the treatment of cancer.

Founded in 1999 to discover, develop, and commercialize novel therapeutics and diagnostics for cancer and diseases of the central nervous system, privately held Panacea Pharmaceuticals has raised approximately \$20 million from such investors as Mitsubishi, Mizuho Capital, and Softbank Investment Group. 🏠

Lab Industry M&A Brings Focused Consolidation In '06

In 2005, merger and acquisition (M&A) activity in the laboratory industry was characterized by larger acquisitions for greater sums and culminated in Quest Diagnostics's acquisition of LabOne for \$934 million. LabCorp also had two major acquisitions in 2005—US Labs for \$155 million in February 2005 and Esoterix in May 2005. Sonic Healthcare also spent \$380 million to acquire Clinical Pathology Labs in November 2005. As a result, 2005 total counted acquisitions were worth \$1.741 billion, second only to 2003's \$2.362 billion.

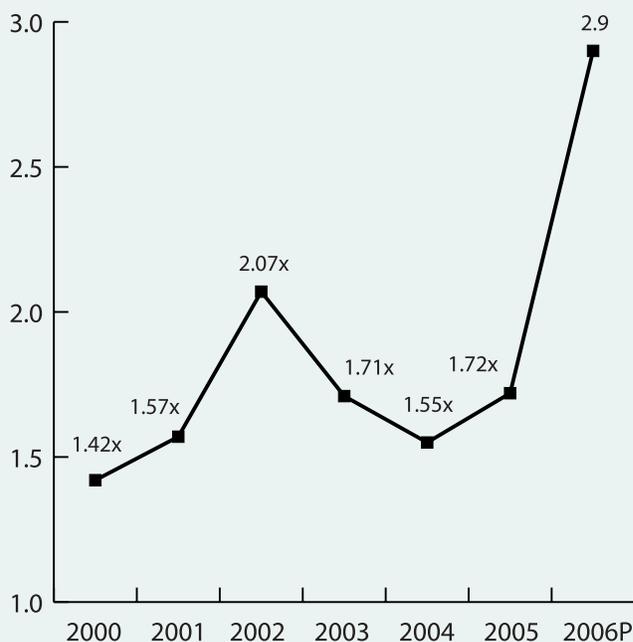
2006 is also booming, although the acquisitions tend to be smaller, with one notable exception. Not all purchase prices were available, but the largest 2006 U.S. acquisitions were Becton, Dickinson's acquisition of TriPath Imaging, AmeriPath's acquisition of Specialty Laboratories for \$344 million, Quest Diagnostic's purchase of Focus Diagnostics for \$283 million, and Fisher Scientific's acquisition of Athena Diagnostics for \$283 million. Most striking about the 2006 M&As is the relative lack of participation on the part of Quest and LabCorp. AmeriPath had two acquisitions early in the year, but otherwise the majority of acquisitions in 2006 were smaller deals between small to midsize laboratories.

The notable exception mentioned previously is the acquisition of Canada's largest clinical laboratory chain, MDS, by Borealis Infrastructure Management.

Borealis, a private equity company owned by the Ontario Municipal Retirement Board, purchased MDS's diagnostic division for \$900 million Canadian, or \$806 million in U.S. dollars.

Also striking about the MDS deal is that it marks yet another large acquisition by a private equity firm, for a total of five such transactions in 2006 alone. Other examples of this are Parthenon Capital's purchase of Health Line Clinical Labs (July 2006), Water Street Capital Partners's acquisition of Lakewood Pathology Associates (May 2006), American Capital's acquisition of Redwood Toxicology (April 2006), Welsh Carson's acquisition of AmeriPath (March 2003), Behrman Capital's purchase of Athena Diagnostics (December 2002), Caris Ltd.'s acquisition of Metroplex Pathology Associates (May 2006) and Pathology Partners (May 2005), and Apax Partners's acquisition of Spectrum Laboratory Network in January 2006.

Average Revenue Multiple Paid to Acquire Labs, 2000-2006



*Purchase price (including assumed debt)/annual revenue of acquired lab

Source: Washington G-2 Reports and company reports

Acquisition Pricing

The average acquisition price appears to be bouncing upward from its previous peak of 2.07 times annual revenue in 2002. 2006 registers at 2.9 times annual revenue, driven by the acquisition of Athena Diagnostics by Fisher Scientific for 5.2 times its annual revenue, as well as the American Capital acquisition of Redwood Toxicology (3.3), Bio-Reference's purchase of GeneDx (3.4), and Becton Dickinson's acquisition of TriPath Imaging for 3.6 times annual revenue. Private equity firms often acquire laboratory firms for higher average price multiples than laboratory firms do.

The year 2004 showed a marked drop in an average revenue multiple of 1.55, while 2005 rose sharply to 1.72 times annual revenue. Average revenue multiples appear to be increasing. *LIR* suggests that part of this increase is driven by heightened competition of fiscally healthy companies, which often boosts the price considerably. This was the case for the Borealis/MDS deal, in which they were bidding against Australia's Macquarie Bank and CML Healthcare Income Fund, which owns Canada's second largest laboratory company.

A Closer Look at Six Big Lab Deals

• *LabCorp Buys Esoterix for \$150m*

In May of last year, LabCorp acquired Esoterix, Inc. (Austin, TX) for \$150 million in cash. Esoterix's majority owner was the venture capital firm Behrman Capital (New York, NY). In April 2005 Washington G-2 Reports estimated that a sales price for Esoterix would range from \$200 to \$300 million. Other analysts were surprised at the lower acquisition price, which was 1.2 times the company's annual revenue, which was \$125 million in 2004.

Esoterix operated nine specialty laborato-

ries around the country, including an allergy and asthma facility in Gainesville, Florida, a molecular genetics lab in Eden Prairie, Minnesota, and a coagulation lab in Aurora, Colorado. In addition to its U.S. labs, Esoterix also runs a laboratory in Western Europe.

• *VC Firm Caris Ltd. Buys Pathology Partners for \$120m*

In May 2005, Caris Ltd (Irving, TX) acquired Pathology Partners (Irving, TX) for \$120 million, 2.18 times its estimated annual revenue of \$55 million in 2004. Pathology Partners' previous investors included Sprout Group, Salix Ventures, and Alliance Technology Partners.

Pathology Partners employs 150 people, including 15 pathologists. It provides services to 1,200 physicians in 31 states. At the time of acquisition, they focused primarily on gastrointestinal cases, but planned to branch out further.

• *Sonic Healthcare Acquires Clinical Pathology Laboratories for \$300m*

Sonic Healthcare, Australia's largest commercial laboratory company, purchased an 80% to 85% share in Clinical Pathology Laboratories (CPL; Austin, TX) in October 2005 for \$300 million. Sonic employs more than 11,000 people in Australia, Germany, and Britain and creates approximately \$1 billion in revenue annually. The acquisition was for twice CPL's annual revenue, which in 2004 was \$173 million.

CPL has 1,400 employees. Its primary markets are Austin, Dallas/Fort Worth, Houston, and San Antonio. It also has facilities in the Washington, D.C., area and throughout Ohio. Sonic Healthcare is the company to watch in the future, as it is a potential significant competitor with LabCorp and Quest Diagnostics for managed care and Medicare and Medicaid

competitive-bid contracts, as well as for the acquisition of other laboratories in the U.S.

• ***Quest Purchases LabOne for \$934m***

In November 2005, Quest Diagnostics (Lyndhurst, NJ) acquired LabOne (Lenexa, KS) for \$935 million in cash or \$43.90 per share. In the first six months of 2005, LabOne generated \$187 million annual revenue and \$41 million in operating profits before overhead allocation.

LabOne's clinical laboratory business focused on serving physician offices in states including Missouri, Kansas, and Tennessee. It has exclusive contracts to cover outpatient lab services for 800,000 managed care enrollees, including United Healthcare, Cigna, and Humana.

A significant factor in Quest's purchase of LabOne was their life insurance program, Lab Card, which covers approximately 3.3 million enrollees/employees under a discount fee schedule. In addition to Lab Card, LabOne also provides tele-underwriting, specimen collection, paramedical examinations, and laboratory testing. LabOne's revenue breaks down this way:

In the *Washington G-2 Reports Laboratory Industry Strategic Outlook 2005*, LabOne was considered the third-largest laboratory in the United States after Quest Diagnostics and LabCorp. LabOne has a 27% market share in the life insurance testing sector. This sector in the United States and Canada is estimated at \$1 billion annual revenues and is growing by about 5% per year.

• ***AmeriPath Acquires Specialty Laboratories for \$344m***

In January 2006, AmeriPath, Inc. (Riviera Beach, FL) acquired Specialty Laboratories, Inc. (Valencia, CA) for \$344 million or \$13.25 per share. The purchase was 2.0 times the annual revenue of Specialty Labs, which was approximately \$160 million in

2005. In April 2005 Washington G-2 Reports speculated that Quest or LabCorp might purchase Specialty Labs for \$300 to \$400 million and that Specialty was one of three laboratories most likely to be of interest to purchasers (the other two being Esoterix and SED Medical Laboratories).

AmeriPath is a leading provider of cancer diagnostics, genomics, and related services. The company employs 400 pathologists throughout the United States. They also provide anatomic pathology, dermatopathology, and molecular diagnostics. In 2005, they reported \$563.6 million in revenue. Specialty Labs is a full-service clinical reference laboratory. Since the merger they have become the Esoteric Testing Division Headquarters for the combined operation.

• ***Quest Acquires Focus Diagnostics for \$185m***

Quest Diagnostics acquired Focus Diagnostics in July 2006 for \$185 million. The acquisition is expected to add annual revenues of approximately \$75 million. Focus is a leader in infectious disease test development and testing, offering an infectious disease menu of 1,200 tests. They offer reference testing services to academic medical centers, hospitals, and commercial laboratories. They have been first to introduce new assays to the market for tests for Lyme disease, West Nile Virus, and SARS. This acquisition further strengthens Quest's focus on infectious disease reference testing. Prior to this acquisition, Focus was owned by two venture capital firms: CSFB Merchant Bank and the Sprout Group.

For much more on lab industry M&A, including a complete transaction listing, see *G-2's Lab Industry Strategic Outlook 2007: Market Report Trends & Analysis*. Order using the form on pg.12 or by calling 212-629-3679. 🏠

After \$500k In Overflow Testing, Tennessee Building New Crime Lab

Too many specimens, too little time. Crime labs nationwide are groaning under the weight of massive backlogs, lean budgets, and staffing shortages. In the past year, the Tennessee Bureau of Investigation (TBI) has spent \$500,000 outsourcing DNA and toxicology testing that its facilities, which perform 250,000 tests a year, could not handle. And there's still a backlog, one that has kept law enforcement and victims' families waiting for up to a year to get results. To address the problem, the TBI has just hired 17 laboratory technologists and is building a new lab in Knoxville.

The TBI currently has a central laboratory in Nashville and regional laboratories in Knoxville and Memphis. The laboratories provide analysis of biological, chemical, and physical evidence in specialized units, including serology/DNA, toxicology, and microanalysis. Two other crime labs in the state were closed several years ago due to budget cuts. 🏠

New Zealand Lab Workers To Strike For Higher Wages

After rounds of failed salary negotiations, over 1,200 medical laboratory workers in New Zealand plan to spend the week of November 29 on strike. They are demanding pay increases that are in step with the country's rate of inflation and that recognize the increasing demands placed on them. Among the labs involved are the New Zealand Blood Service, district health boards nationwide, Tairāwhiti in Gisborne, Wellington Pathology, and Southern Community Laboratories.

Word of the planned strike comes at what many view to be a crisis point in New Zealand's laboratory industry, in the wake of regional health boards' acceptance of "low-ball" bids for lab service contracts that have shut out long-established providers, such as Sonic Healthcare-owned Diagnostic Medlab (see *LIR*, August 2006, p. 1-2). Meanwhile, poor pay is making it difficult to attract technologists to the region.

"We definitely need to be doing this," said Ann Rush, a representative of the medical laboratory workers union who has worked as a medical technologist at the Gisborne Hospital for the past 30 years. According to Rush, the starting wage for some hospital lab workers is as low as NZD\$26,000 (about \$17,400 in U.S. dollars), with a high of \$43,000 (USD\$28,750), as compared to the national average starting wage of NZD\$40,000 (USD\$26,750).

If the strike proceeds as planned, New Zealand's lab workers will follow in the footsteps of 22 radiologists that walked out of the country's Tauranga Hospital for 10 days, earlier in November. The strike affected X-ray, ultrasound, and scanner procedures and resulted in the postponing of 70 elective operations.

Meanwhile, Labtests Auckland, the company that was awarded the eight-year, \$560 million contract for lab services in the capital city of Auckland in July of this



year, is causing a stir by suggesting that it might send some of the tests performed by pathologists to Australia when it takes over the Auckland regional community testing contract from longtime provider Diagnostic Medlab in July of 2007. The mention of Labtests's possible outsourcing comes a few months after Tony Bierre, M.D., the CEO of Labtests, assured the public that all tests would be processed in New Zealand, "not Australia or Malaysia." Diagnostic Medlab is challenging the contract decision in court, while lab and pathology interest groups in New Zealand are calling for an immediate halt to further laboratory changes. 🏠

Consumers Open To, But Skeptical Of Retail Health Clinics

While only 7% of adults in the United States have ever used an onsite health clinic in a pharmacy or retail chain, the majority of all adults agree that these retail clinics may be more convenient, accessible, and perhaps more economical, according to a new poll by the *Wall Street Journal* and Harris Interactive.

Among those who have never gone to an in-store clinic for healthcare services, 59% say they would not be very or not at all likely to use such a clinic and 41% say they would be somewhat or very likely to use one for basic medical services.

Many consumers express some concern about the quality of care they would receive at these clinics and from whom they would receive it.

Although the concept of retail clinics was appealing, many of the 2,245 adults

surveyed also had concerns. Three in four (75%) adults strongly or somewhat agree that they would be worried that serious medical problems might not be accurately diagnosed by someone working in an onsite health clinic in a retail store or pharmacy. Almost the same amount (71%) strongly or somewhat agree that they would be worried about the qualifications of the staff that provides care in a health clinic not run by medical doctors. Additionally, about two-thirds (66%) strongly or somewhat agree that onsite health clinics are just another way for big companies to make more money.

What aspects of your visit to a retail clinic were you (somewhat/very) satisfied with?

convenience	(92%)
quality of care	(89%)
having qualified staff to provide the care	(88%)
cost	(80%)

Source: Harris Interactive, October 2006, n=2,245

Retail Health Clinics: Convenience Is Key

- More than four in five (83%) adults strongly or somewhat agree that onsite health clinics at retail stores can provide basic medical services to people at times when doctors' offices are closed, like evenings and weekends.
- Seventy-eight percent (78%) strongly or somewhat agree that onsite health clinics provide busy people with a fast and easy way to get basic medical services.
- Three-quarters (75%) of adults strongly or somewhat agree that onsite health clinics can provide low-cost basic services to people who otherwise might not be able to afford care.

One thing is for sure: as out-of-pocket costs for healthcare services soar, major retail chains are working to take advantage of a major market opportunity. According to Katherine Binns of Harris Interactive, “While only a small number of adults have ever used these clinics, these survey findings suggest that this approach to providing convenient and low-cost basic care might be appealing and helpful to many consumers.”

Walk-in retail clinics could become a major location for point-of-care testing as well as a referral source for laboratories. Companies such as Aurora Quick Care, Solantic, QuickClinic, and RediClinic operate about 200 walk-in clinics throughout the United States. MinuteClinic (Minneapolis, MN), for example, operates clinics at selected CVS/pharmacy, Target, and Cub Foods stores. Each clinic treats an average of 30 to 35 patients a day, performs a range of rapid tests on site, and uses both local and national lab companies for send-outs. 🏠

New Cancer Lab To Open In The Bahamas

Insight Medical Group (Oxford, MS) plans to establish a cancer diagnostics laboratory in the city of Freeport on Grand Bahama Island. The location will enable the company to escape the high taxes and heavy regulatory environment of the United States, according to Anthony Welch, chairman of Modern Technology Corp. (MTC; Oxford, MS), the development and acquisition company that owns Insight. MTC is now looking to hire a “highly respected medical professional prominent in the pathology and diagnostics community” for a senior marketing position within the company.

Insight’s new lab will use the Boveran iCyte cancer detection system, which rapidly identifies cancer at any stage in its development and also identifies healthy cancer-free cells in the same test. Invented by David Rasnick, Ph.D., the system can be applied to any form of cell sample suspected of cancer and returns results within minutes.

The iCyte system is based on chromosomal imbalance, a trait common to all cancer cells but one not found in healthy cells. From a biopsy or tissue sample, the iCyte system identifies cancer at any stage in its development and can also identify cancer-free biopsies. Once applied to a cell sample, the system returns a result within minutes.

Insight was established in September of this year as a subsidiary of MTC focusing on bioscience acquisitions and applications. Eventually, MTC plans to spin off Insight into a new public company. In October, Insight acquired all of the assets and intellectual and technology rights to the Boveran iCyte cancer detection system for a purchase price of \$500,000 in convertible shares of MTC.

The company also recently announced that it has appointed James S. Hartinger, a 22-year veteran of the cytopathology industry, to its scientific advisory board. Hartinger spent 12 years managing a major cytology lab and was involved in three clinical trials of automated cytology machines. 🏠



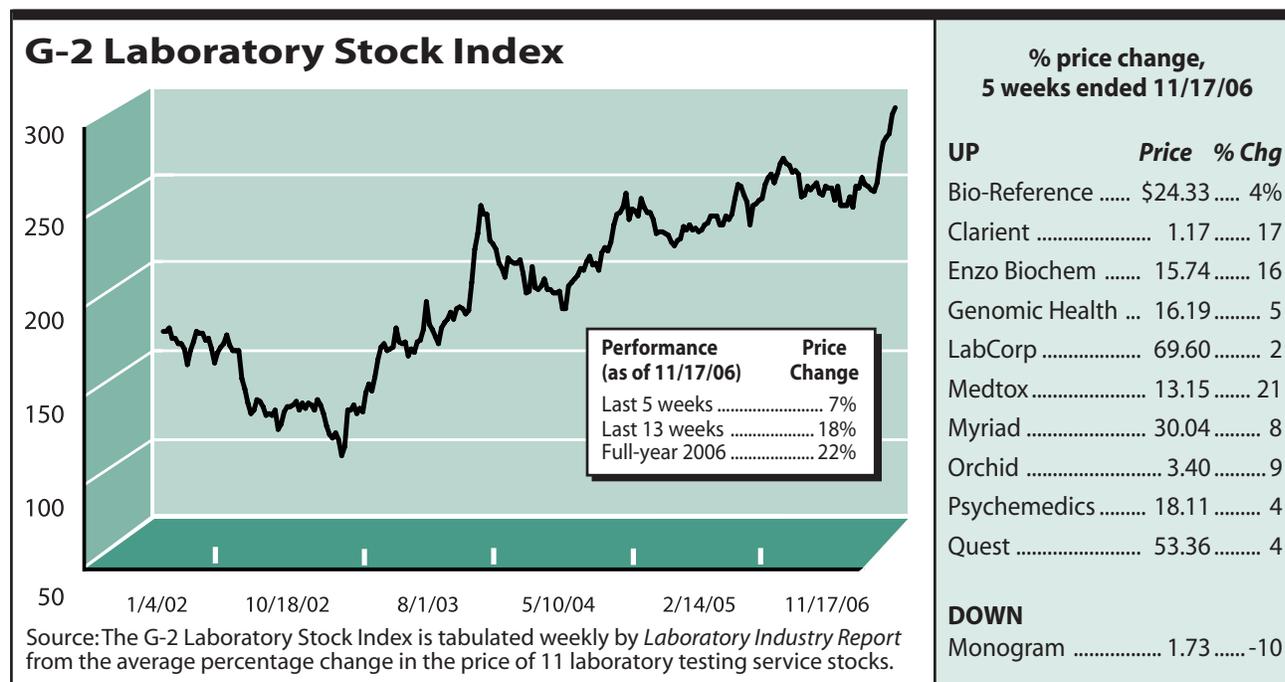
Lab Stocks Rise 7%; Medtox Up 21%

The G-2 Laboratory Stock Index rose 7% in the five weeks ended November 17, with 10 stocks up in price and one down. Year to date, the G-2 Index is up 22%, while the S&P 500 is up 12% and the Nasdaq is up 11%.

Medtox Scientific (St. Paul, MN) was up 21% to \$13.15 per share for a market cap of \$106 million. The company recently reported a 79% increase in its third-quarter profit, earning \$1.5 million compared to the previous year's \$825,000, thanks to higher revenue from laboratory services and product sales. Medtox's revenue for the quarter was up 13% to \$18.7 million from \$16.5 million, with \$14.7 million of that from laboratory services and \$4 million from product sales.

Enzo Biochem (Farmingdale, NY) rose 16% to \$15.74 per share for a market capitalization of \$506 million, despite its announcement of a widened fourth-quarter loss. Enzo's clinical laboratory division operates a laboratory, a network of 19 patient service centers, a stand-alone stat laboratory, and a phlebotomy department. The company has recently become embroiled in a patent lawsuit that concerns the technology for gel sequencing, the primary technique used to sequence DNA. On November 16, the United States Patent and Trademark Office declared a patent interference between an allowed patent application of one of Enzo's subsidiaries and a patent held by the California Institute of Technology and licensed exclusively to Applied Biosystems.

At the two largest lab companies: **Quest Diagnostics** (Lyndhurst, NJ) rose 4% to \$53.36 per share for a market cap of \$10.30 billion. Meanwhile, **LabCorp** (Burlington, NC) was up 2% to \$69.60 a share for a market cap of \$8.64 billion. The company recently announced that it will accelerate its share repurchase agreement with an affiliate of Lehman Brothers to repurchase approximately \$250 million of its stock. 🏠



INDUSTRY *buzz*

Hospital test volume continues to grow steadily . . . In 2005, hospital test volume (inpatient, outpatient, and outreach combined) grew by a median of 5% and an average of 6.5%, according to the Washington G-2 Reports Third Annual Outreach Survey conducted in May 2006. Smaller hospital laboratories with annual volumes of less than 250,000 showed the highest annual median and average growth rate of 6.4% and 7.5%, respectively.

"We used to spend a lot of time looking for tubes," said Lowell Tilzer, M.D., medical director of clinical laboratories at the University of Kansas Hospital.

And automation makes room for more growth. . . The University of Kansas Hospital (Kansas City, KS) performs 2.6 million blood tests a year. Thanks to a new fully automated laboratory, they now have double that capacity and require about a third less money and personnel. The hospital's new lab uses a Beckman Coulter system that automates every step of the testing process, from uncapping sample tubes and placing them in a centrifuge to analyzing and reporting results.

A typical blood test used to take one to three hours, depending on staffing, backlog, and the nature of the test. Now turnaround time for a typical eight-test panel is 30 to 45 minutes, regardless of the time of day or night. The new equipment also makes it easier to perform multiple tests on a single sample, because samples are stored for several days in a refrigerated "stockyard" at the end of the line that holds 3,000 tubes. The machine knows the exact location of each tube and can retrieve them within seconds. 🏠



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- Quest Diagnostics 800-222-0446
- Panacea Laboratories 240-404-9045
- Tm Bioscience 416-593-4323
- University of Kansas Hospital 913-588-1227

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