

From the Desk of R. Lewis Dark...

THE **RD** DARK REPORT

**RELIABLE BUSINESS INTELLIGENCE, EXCLUSIVELY
FOR MEDICAL LAB CEOs/COOs/CFOs/PATHOLOGISTS**

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Beware What Your Lab Competitor is Doing!

TODAY I WOULD LIKE TO SPEAK SPECIFICALLY to hospital lab administrators and owners of independent commercial laboratories. I would like to offer some friendly counsel: it's time to pay careful attention to the most successful of your laboratory competitors.

Undeniable evidence is mounting that traditional clinical laboratory management methods are inferior to new models of business and health-care management. For clients and long time readers of THE DARK REPORT, this is no surprise. You are well-informed about innovations in laboratory management. Success stories of early-adaptor lab organizations have regularly graced these pages, as well as the podium at our annual *Executive War College* every May.

But there are many lab administrators and pathologists, who, for a variety of reasons, remain unaware or unconvinced of the need to change their management style. It is for them that I offer my friendly advice and counsel. As well, I offer them, in this issue of THE DARK REPORT, the management stories of three more laboratories which understand the need to replace traditional lab management methods.

I consider it highly relevant that both **American Medical Laboratories, Inc.** (AML) and **Dynacare Inc.** sustained strong rates of growth in specimen volumes, revenues, and operating profits during recent years. (*See pages 2-8.*) Certainly they are not perfect companies, and various flaws in their business strategies will inevitably surface. But they have accomplished significant things during a time when the lab marketplace was forcing many lab organizations into bankruptcy or consolidation.

As a contrast to AML and Dynacare, **Quest Diagnostics Incorporated** is in the midst of an ambitious program to completely reconfigure its management systems around ISO-9000 and Six Sigma Quality programs. If Quest Diagnostics succeeds, I believe it will raise the competitive bar for lab testing services in such a way that *every* lab in the United States will be forced to respond in a similar manner. Imagine what competitive advantage accrues to any lab if its missed courier pick ups, lost specimens, or billing error rates were less than six per million events! The performance of these labs in our industry is an early warning to every lab manager: it's time to watch your lab competitors and respond with changes in your lab. **TDR**

AML & Dynacare Next To Try a Public Offering

Two more lab companies are encouraged by surging investor interest in lab business

CEO SUMMARY: *There will be plenty of competition for investors' dollars this fall. American Medical Laboratories and Dynacare will join Specialty Laboratories in the effort to place an initial public offering (IPO). Three laboratory companies coming to market during the same period will certainly demonstrate whether professional investors truly believe that good times lie ahead for the lab industry.*

DO PROFESSIONAL INVESTORS believe the commercial laboratory industry is ready for a financial turnaround? The answer to this question may be only weeks away.

It was big news when **Specialty Laboratories, Inc.** announced on September 12 that it would seek to raise \$86.3 million through an initial public offering (IPO) of its stock. (*See TDR, October 2, 2000*). After all, this is the first clinical lab testing company to seek an IPO since **UroCor, Inc.**'s IPO in 1996.

Now comes news that two more private lab companies will offer stock to the public. On September 29, both **American Medical Laboratories, Inc.** and **Dynacare, Inc.** filed registration documents for their own IPOs.

American Medical Laboratories, (AML) based in Chantilly, Virginia, intends to raise \$115 million. Dynacare, Inc., headquartered in Toronto, Canada, seeks to raise \$89 million.

The fact that three private lab companies believe they can raise as much as \$290 million from investors in upcoming weeks is a major story for the laboratory industry. It might also mark the start of a new competitive cycle in both the hospital reference testing marketplace as well as the physicians' office environment.

Lab executives and pathologists should also know that each of these three lab companies has different reasons why it wants to sell its stock to the public. There is a unique story behind each company's decision to launch an IPO.

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For example, ownership at Specialty Laboratories is concentrated in the hands of one individual. That is Chairman and CEO James B. Peter, M.D., Ph.D., who is nearing retirement age. One way to position his laboratory company for ongoing growth in the future is to adopt the corporate management structure of a public company. It also provides several options for his estate planning.

Although three lab companies are attempting an IPO at the same time, financial analysts tell THE DARK REPORT that investors are expected to support all three IPOs.

At American Medical Laboratories, the need for an IPO is very different. Back in 1997, its new owners used borrowed money to buy the lab. In 1999, they borrowed again to finance their acquisition of **Associated Pathologists Laboratories**. (See pages 4-6.)

In 2000 and 2001, AML must begin to make substantial principal paydowns on its outstanding debt. AML's public stock offering will provide it with the capital it needs to restructure this debt. It will also replenish AML's stock of working cash, allowing it to continue funding an aggressive sales program.

More Stock Liquidity

At Dynacare, there are several reasons for an IPO. Two investment groups hold large equity positions in Dynacare. They want their Dynacare stock to have more liquidity. Like AML, Dynacare also used debt to go private and fund acquisitions. It now faces the need to pay down principal and restructure its long term debt. (See pages 7-8).

Further, there is an interesting link between AML and Dynacare. A private equity investment firm, **Golder Thoma Rouner & Cressy** (GTCR), provided expertise and capital to help the executives of each lab company acquire their laboratory assets. Like venture capitalists, private equity investors want their portfolio companies to go public. A publicly-traded stock makes it easier for GTCR to recover its original investment and realize potential profits.

Despite the fact that several lab companies want to place their stock at the same time, financial analysts tell THE DARK REPORT that investors are expected to support all three IPOs.

"Right now there's lots of money that can be placed in lab stocks," explained one Wall Street Analyst. "For example, when **Roche** offered its **Laboratory Corporation of America** stock on October 16, investors quickly snapped up \$430.5 million worth of LabCorp stock. That stock offering was also the largest healthcare services deal of 2000!"

Branded Esoteric Assays

In the pages which follow, THE DARK REPORT analyzes public filings made by American Medical Laboratories and Dynacare. Combine these with the analysis of Specialty Laboratories in our last intelligence briefing and an interesting picture emerges.

All three labs posted healthy gains to revenue and profits during the blackest financial years of the 1990s. Their performance is both a lesson and an example for hospital lab administrators. Effective business strategies, combined with professional laboratory management methods, can improve the financial performance of almost any hospital lab. The direction taken by these three lab companies might also be considered a call to action for all thoughtful lab executives and pathologists.

IPO Is Major Strategy For American Med Labs

AML wants to raise \$115 million from its initial public offering

CEO SUMMARY: *Since its acquisition in 1997, American Medical Laboratories' fast growth was funded by heavy borrowing. Now this Virginia-based lab company needs to raise additional capital so it can restructure its debt and lay a foundation for the next cycle of growth. Its initial public offering of common stock will need to compete with similar offerings by Specialty Laboratories and Dynacare.*

NEXT IN LINE for an initial public offering (IPO) is **American Medical Laboratories, Inc.**, (AML) based in Chantilly, Virginia.

AML filed its stock registration statement with the **Securities and Exchange Commission** (SEC) on Friday, September 29, 2000. It hopes to raise as much as \$115 million from the investment community.

Since its acquisition by new owners in May 1997, American Medical Labs has been operated around the strategic goal of becoming a public company. (*See TDR, May 12, 1997 and April 5, 1999.*)

When AML was acquired, the commercial laboratory industry was in the financial doldrums. Experienced lab owners did not believe it was an auspicious time to enter the lab business. But AML's buyers, Tim Brodник, Jack Bergstrom, and Jerry Glick represent the next generation of commercial laboratory owners.

Even in 1997, these individuals were convinced that the commercial

laboratory business was still viable and could be financially lucrative. They believed AML, as a long-established, respected commercial lab company, was an underutilized asset.

Purchasing AML gave these new owners a solid operational base. Their goal was to transform the laboratory into a high-growth revenue engine. They believed two specific business strategies could accomplish this goal.

Aggressive Sales Program

First, AML would fashion a high-powered and aggressively-managed sales and marketing program. AML's owners believed well-trained sales reps could deliver profitable new client accounts.

Second, new management philosophies and methods would be introduced into AML's laboratory operations. This would improve customer service performance and productivity while at the same time controlling costs in the laboratory.

Effectively, the new owners wanted to turbocharge AML and create a

dynamic, fast-growing laboratory company. After three years under new ownership, AML's recent public filings provide a first look at the results of this business strategy.

Acquisition Closed in 1997

When the acquisition closed in May 1997, AML's 1996 revenues were \$67.3 million with a net loss of \$1.2 million. By the end of 1998, the first full year of operations under new management, revenues topped \$102.7 million and net income grew to almost \$4 million.

That pace of revenue growth continued, reaching \$143.4 million in 1999. It is estimated that AML's revenues will exceed \$250 million in 2000. Net income sagged to \$1.2 million in 1999, but seems to be on track to reach as high as \$5 million for 2000.

However, not all of this revenue growth is the result of AML's sales and marketing efforts. In October 1999, AML acquired Las Vegas-based **Associated Healthcare Group, Inc.**, owners of **Associated Pathologists Laboratories (APL)**. At the time of this acquisition, APL's revenues were about \$110 million. American Medical Labs paid over \$107 million for APL, including \$64.3 million in cash.

AML also made a smaller acquisition. In June 1998, it purchased **Providence Laboratory Associates (PLA)** in Washington D.C. for \$4.2 million. PLA's annual revenues were in the range of \$5 million.

AML's Sales Program

The effectiveness of AML's sales program can be estimated by backing out the revenues from acquisitions. This reduces the estimated \$255 million for 2000 by \$115 million, leaving \$140 million. Compared to pre-acquisition revenues for 1996 of \$67.3 million, this shows an overall revenue gain of 108%, or \$72.7 million from testing revenues generated by new clients and

year-to-year price increases during these 48 months.

Of course, the \$72.7 million generated by AML's expanded sales program came with its own price tag. As reported by AML, "selling, general and administrative" (SG&A) expenses for the pre-merger year of 1996 was \$37.8 million, or 48.4% of total revenues. For 2000, it is estimated that SG&A expenses will be around \$54.1 million, or 27.7% of total revenue.

It is easy to understand why American Medical Labs wants to close an IPO before the end of this year. AML's existing credit lines require sizeable principal reductions during the next 14 months. It's the classic situation when borrowed money is used to buy a business. Leverage is a great tool to get into deals, but sooner or later the lender must be repaid.

Upcoming Loan Paydowns

At mid-year, AML's long term debt, with current maturities, totaled \$145.8 million. Its loan agreements specify that principal reductions of \$4.7 million and \$9.2 million must be made by year-end 2000 and 2001, respectively.

To fund these principal payments, AML only has \$1.0 million in cash, plus \$23.4 million in non-cash working capital. It also has \$14.2 million of "unused borrowing capacity."

As these numbers demonstrate, although AML is operating a fast-growing and profitable laboratory testing business, it has not generated enough liquid assets to meet the upcoming timetable of principal and interest payments.

That is why AML now wants to offer its stock to the public. It intends to use the expected \$115 million in IPO proceeds to refinance existing debt obligations. AML feels that its track record of year-to-year increases in revenues and operating profits

should allow it to successfully recast its debt structure. AML will use the proceeds from its common stock offering to amend or refinance existing senior credit facilities on what it believes will be “improved terms.”

Days Sales Outstanding

One interesting factor in the management of AML’s growth is its days sales outstanding (DSO). AML reports a total accounts receivables of \$58.7 million on June 30, 2000. Calculated against expected revenues of \$255 million for the year, this yields a DSO of 55 days.

For comparison, the DSO at **Quest Diagnostics Incorporated** for the most recent quarter is 54. **Laboratory Corporation of America’s** DSO is 70. **Dynacare** reports a DSO of 78 days.

As many hospital laboratory administrators know, American Medical Laboratories is pushing hard to generate business from hospital reference send-out testing. Currently it serves 380 hospital labs and 160 independent clinical labs. Esoteric testing makes up 52.9% of AML’s total revenues.

Since declaring its IPO, AML managers are now bound by SEC “quiet period” rules. Until the stock offering is completed, AML officials will be unavailable for interviews and will generally decline to discuss their company in public forums.

New Account Profitability

Despite this news blackout, AML’s public filings demonstrate to the lab industry that a professional sales and marketing program is still capable of generating substantial increases in specimen volume and revenues. The question is whether the cost of acquiring this new business can be offset by the profitability of the resulting new client accounts, particularly at the relatively low prices AML is reported to be offering to prospective new clients.

American Med Labs At-A-Glance

- Main lab in Chantilly, Virginia is 250,000 sq. ft.
- Lab in Las Vegas, Nevada is 124,000 sq. ft.
- 22 remote service centers for logistics and courier operations
- 53 patient service centers in Washington D.C. and Nevada areas
- 8 rapid response labs
- 2,700 employees
- 62 Sales/Marketing employees:
 - 24 esoteric/reference sales reps
 - 15 routine testing sales reps
 - 7 toxicology sales reps
 - 16 marketing support staff
- Test volume breakdown, weekly:
 - 123,000 Esoteric (52.9% of total)
 - 164,000 Routine (36.8% of total)
 - 43,500 Forensic (10.3% of total)
- AML invested in, and has a business relationship with **LabPortal.com** for advanced lab information products and services.

Also, with the Internet developing into a useful business tool, AML is racing to create and introduce competitive laboratory information products for its clients. To accomplish this, AML recently allied itself with **LabPortal.com**, another portfolio company of Golder Thoma Rauner & Cressy.

THE DARK REPORT has long predicted that AML’s ambitions to become a major player in the national market for esoteric and reference testing would intensify an already competitive marketplace for send-out testing. Certainly any objective reading of AML’s recent public filings would indicate that, in at least this first cycle of growth, AML has made important progress toward that goal.

TDR

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Dynacare Sets Sights On Raising \$89 Million

Canadian-based company's U.S. operations provide most specimen and revenue growth

CEO SUMMARY: *Throughout the 1990s, Dynacare weathered the wholesale restructuring of health services in several key Canadian provinces where it operates. In the United States, it sought to build a national base of lab testing even as lab consolidation raged and capitated managed care contracts were common. Having survived in both countries, Dynacare now wants to tap the public markets for capital.*

ONE APT DESCRIPTION for Toronto-based **Dynacare Inc.** might be the “laboratory company with the split personality.”

On one hand, Dynacare is a well-established Canadian laboratory. On the other hand, its United States operations are growing rapidly. Lab testing revenues from the U.S. now dwarf the revenues Dynacare generates from its Canadian laboratories.

Revenue Growth

It is this track record of revenue and operating profit growth in the U.S. that Dynacare believes will attract investors to its stock. Dynacare filed for its initial public offering (IPO) on October 2 and hopes to raise \$89 million in the coming weeks.

Dynacare's public filings open a revealing window on the financial performance of its American strategy. Since 1993, Dynacare has been in the United States offering to do joint ventures with hospital laboratories.

Also since 1993, Dynacare has been an aggressive buyer of indepen-

dent commercial laboratories. This twin business strategy seems to work.

Dynacare's modest start in the United States generated \$46 million in revenues in 1993. But for 2000, the company will hit estimated revenues of \$240 million from its U.S. laboratory ventures.

During the past five years, Dynacare's U.S. revenues have grown at an annual compounded rate of 43%! Net earnings have shown similar growth. From a loss of \$3.2 million in 1995, earnings have grown to an estimated \$9 million for 2000.

In contrast, during the 1993-2000 period, Dynacare's Canadian lab revenues fluctuated from a low of \$91 million to a high of \$99 million (in U.S. dollars). Financial troubles in the Canadian healthcare market make it difficult for any laboratory to achieve a fast-growth strategy. That is specifically why both Dynacare and its main Canadian rival, **MDS Health Group Ltd.**, invaded the United States laboratory market during the 1990s.

Dynacare's high-profile attempts to woo hospitals into laboratory joint ventures attracted much attention in the United States. After seven years of marketing efforts, Dynacare has four active joint ventures with hospitals. These include **Memorial Hermann Hospital** (Houston, Texas—1995), **Ellis Hospital** (Schenectady, New York—1997), **Froedert Hospital** (Milwaukee, Wisconsin—1997), and **University Health System** (Knoxville, Tennessee—1999).

During this same period, Dynacare purchased 17 independent laboratories. The largest of these acquisitions were **Laboratory of Pathology** (Seattle, Washington—1995), **Louisiana Reference Laboratories** (Baton Rouge, Louisiana—1997), and **LabSouth** (Birmingham, Alabama—2000).

Debt Restructuring

Since 1995, Dynacare has used debt to finance both its lab acquisitions and its share of start-up costs for the hospital joint ventures. Dynacare's long term debt stands at \$213 million. It must make principal reductions of \$9.1 million during 2000 and 2001. Proceeds from Dynacare's public stock offering will be used to restructure existing debt and provide additional working capital.

As with any lab company pursuing a "growth by acquisition" strategy, Dynacare has unique problems to deal with, such as multiple billing systems. During 1999, it installed three new billing systems and upgraded three more in its U.S. labs.

Days Sales Outstanding

Inevitably, days sales outstanding (DSO) climbed, reaching 93 days at the end of 1999. That number was reduced to 78 days by June 30, 2000. As a point of contrast, Dynacare's DSO in Canada averages 40–45 days, because the government is the single payer in that healthcare system.

Dynacare Inc. At-A-Glance

- **Headquarters:** Toronto, Ontario (with corporate offices in Dallas, Texas)
- **Canadian lab operations in Ontario and Alberta:**
 - 4 central labs
 - 21 rapid response labs
 - 139 patient service centers
- **United States lab operations (including joint ventures and owned labs in 17 states):**
 - 19 central labs
 - 66 rapid response labs
 - 149 patient service centers
- **13 million patient requisitions annually.**
- **50 sales representatives**
- **50 customer service representatives**

Also, like many of the lab companies during the 1990s which grew by acquisitions, Dynacare's balance sheet is heavily weighted with goodwill and intangibles. In 1997, Dynacare wrote down almost \$80 million for licenses and goodwill. These items resulted from changes to its lab operations in Ontario; Alberta; Cheyenne, Wyoming; and Skagit, Washington.

Strong Revenue Growth

This sizeable write-down does offset the profits earned by Dynacare during the 1990s. But on a go-forward basis, Dynacare's sustained growth in its U.S. lab revenues and operating profits since 1997 demonstrate that there is still opportunity within the laboratory testing marketplace.

That is why, armed with additional capital from its impending public stock offering, Dynacare may be positioned to do more lab acquisitions—and create more lab joint ventures with hospitals and hospital systems in the next few years.

New Way to Manage Lab Operations

ISO 9000 Growing Across Lab Divisions of Quest Diagnostics

CEO SUMMARY: *Currently the American healthcare system is struggling to evolve away from its "cottage industry" roots and adopt modern corporate management methods. Within the clinical laboratory industry, Quest Diagnostics Incorporated has staked out the high ground. Its strategic objective is to infuse the entire laboratory company with knowledge of specific management methods commonly known as "quality leadership" systems. For Quest Diagnostics, this means company-wide ISO 9000 certification first, followed by a Six Sigma Quality program.*

FIRST IN A SERIES

IT WAS A LAB INDUSTRY FIRST in May 1998 when the **Nichols Institute** division of **Quest Diagnostics Incorporated** received its certification as an ISO-9001 lab facility. (See *TDR*, July 6, 1998 and July 27, 1998.)

Nichols Institute can measure significant benefits from shifting its management system to ISO 9001. Encouraged by these benefits, Quest Diagnostics is working to gain ISO certification throughout its national laboratory system.

Already in 2000, three additional laboratory sites have earned ISO 9002

certification. They are: Juarez, Mexico (January 2000); Deerfield Beach, Florida (February 2000); and Wallingford, Connecticut (March 2000). The company expects to announce several more ISO-certified laboratory operations during the early months of 2001.

New Management Systems

"Quest Diagnostics is committed to introducing quality management frameworks throughout its laboratory system," stated George Pounds, Corporate Director of ISO 9000 at the company. "We see these management frameworks as the foundation for delivering sus-

tained and ongoing improvements in day-to-day operations and, most importantly, in customer service."

Pounds made his comments during a recent visit by THE DARK REPORT to Quest Diagnostics' headquarters in Teterboro, New Jersey. It was an opportunity for company officials to discuss how and why they are changing management methods at the world's largest laboratory testing company.

"There's an easy way to understand why Quest Diagnostics is spending significant resources to become an ISO-certified laboratory company," noted Pounds. "Across the globe, companies

in manufacturing, distribution, and services have repeatedly demonstrated that a management philosophy rooted in ISO 9000 systems is customer-friendly and creates sustained improvements to quality, productivity, and net profits.

"Our CEO, Kenneth Freeman, is challenging all of us within Quest Diagnostics to create a laboratory company where customers, particularly patients and physicians, can recognize a positive difference in how our company delivers lab testing services," explained Pounds. "ISO 9000 is an internationally-proven management framework to accomplish that goal. It creates an environment where team members in all laboratories and corporate support functions are motivated to work together to solve problems and achieve goals."

Using ISO certification as a way to change the management culture and business practices of a clinical laboratory is unprecedented within the United States. Virtually all the major diagnostics manufacturers which sell instruments and reagents to clinical laboratories have been ISO-certified for almost a decade. But clinical laboratories have been slow to understand and embrace the management philosophies and methods articulated by ISO 9000 standards.

Different Way To Manage Labs

"ISO 9000 is a different way to manage a clinical laboratory, for several reasons," said Pounds. "First, it requires customers to be the company's highest priority. It also recognizes that customer-supplier relationships exist both externally and internally.

"ISO 9000 emphasizes that the primary goal of an organization is to meet and exceed the expectations of its customers," he continued. "This requires laboratories to maintain a close dialogue with their customers to identify needs and monitor customer satisfaction. Quest Diagnostics uses regular customer surveys to accomplish this requirement.

ISO 9000 Has Long History in Business

ISO stands for the **International Organization for Standardization**, based in Geneva, Switzerland. It represents the standardizing committees for 91 countries throughout the world.

Early roots of quality standards go back to 1959, when the American Department of Defense issued Mil-Q-9858. By the late 1960s, NATO had established a set of quality standards. It was 1979 when the business community really began to get behind a consistent set of management standards. This was the year that ISO formed "Technical Committee 176." This committee's goal was to harmonize international activity in quality management and quality assurance standards.

ISO 9000 standards were drafted in 1984 and first issued in 1987. Some 26 countries adopted these standards. By the end of 1996, more than 90 countries had adopted ISO 9000 as their national standards for quality management.

Companies and organizations can certify for different levels of compliance to ISO standards. There are three levels:

- **ISO 9001:** most comprehensive; covers design, manufacturing, installation, and servicing systems and processes. Also covers research and development activities.
- **ISO 9002:** covers production and installation.
- **ISO 9003:** covers only final product inspection and test.

These three models were developed for use in contractual situations between a customer and a supplier. Another series designation, ISO 9004, provides quality guidelines for internal use by a producer developing its own quality system to meet unique business needs or take advantage of emerging opportunities.

"Second, ISO 9000 organizes work processes around a system of prevention. It requires a laboratory to constantly evaluate how it performs its tasks, then implement improvements on a continuous basis. The objective is to create a framework that allows the company to study every work process and refine it to produce goods and services that are flawless," Pounds said. "This is where a Six Sigma Quality program can have significant impact.

"Third, ISO 9000 teaches a laboratory how to accurately measure, over time, the effectiveness of overall work processes, the quality of products and services, and the satisfaction of customers with the laboratory," he added.

"As most laboratorians know, clinical laboratories are under extreme pressure to continually lower costs. They are also under pressure to improve quality and acquire new test technology," commented Pounds. "Since Nichols Institute became ISO-certified over two years ago, we have found it much easier to successfully deal with these challenges."

Led ISO Certification Effort

Pounds led the ISO certification effort at Nichols Institute in 1997 and 1998. He now helps other operating divisions within Quest Diagnostics become ISO-certified.

"It is not difficult for laboratories to gain ISO certification," observed Pounds. "Basically, ISO requires labs to measure customer perception, then respond to these perceptions with tangible improvements. The lab is required to establish an overall framework to fully document work processes and carefully measure outcomes. Most laboratorians are already trained to follow work processes and document what they do.

"What is different is the emphasis on the customer," he noted. "Most lab accrediting programs ignore the customer. It is just the opposite with ISO.

ISO puts the customer into the number one priority position. The laboratory is required to organize its services and workflow so as to best meet the needs of its customers.”

According to Pounds, regional laboratories within Quest Diagnostics were quick to recognize the benefits of ISO 9000 management systems. “When Ken Freeman first asked for volunteer labs to start this process, he had more responses than we could handle,” recalled Pounds. “Some interesting criteria were used to select the clinical labs which would be first to launch ISO certification programs.

Recognize The Benefits

“First, it was recognized that lab customers in our Juarez, Mexico would respond favorably to an ISO-certified laboratory,” explained Pounds. “There are plenty of maquiladora firms there. These are American-owned manufacturing businesses located in Mexico.

“Most of these companies operate a healthcare clinic on site for their employees and dependents. As ISO-certified companies, they are required to buy from ISO-certified suppliers whenever possible. These companies saw it as a plus when the Quest Diagnostics lab in Juarez earned its ISO certification. It definitely has boosted our marketing efforts in that city.”

“Selection of the lab divisions in Deerfield Beach, Florida and Wallingford, Connecticut over other volunteers was related to two factors,” continued Pounds. “First, both lab facilities had no other significant management projects slated for the year.

Customer Satisfaction

“Second, Quest Diagnostics does quarterly surveys to measure customer satisfaction,” Pounds explained. “For various reasons, these two lab divisions wanted to improve their performance relative to the Quest Diagnostics corporate average for cus-

tomers. It was believed that certification in ISO 9002 would help these labs drive their customer service measurements above the corporate average.”

All three laboratory sites, Juarez, Deerfield Beach, and Wallingford, gained ISO 9002 certification within 11 months of launching the effort. Pounds estimates that it took about \$25,000 per site to accomplish this.

“We had the experience of certifying Nichols Institute,” he said. “That learning curve was shared in the other labs. Also, we use the same registrar and are adding facilities to the same certificate. These factors help to hold down costs.”

Within these three laboratory divisions, the goal of ISO certification was embraced by employees. “Most people had already heard some of the success stories from Nichols Institute,” observed Pounds. “Also, any time laboratorians believe they have a way to improve the quality of their laboratory testing while eliminating the unproductive elements of daily workflows, they get motivated.

Launch ISO 9000 Program

“For that reason, it was a straightforward process to launch ISO 9002 certification programs at these three laboratories,” he added. “But more significantly, as this management framework begins to improve the lab’s operational performance, morale can become sky high.

“Let me illustrate. During the past few years Quest Diagnostics has done quarterly surveys of customer satisfaction for every regional laboratory,” said Pounds. “We get a high rate of customer participation in these surveys, averaging about 30%. A score of 25 on a quarterly survey would be perfect. A score of 22 would be world class. The average score within Quest Diagnostics is about 18.

“Prior to launching their ISO programs, Deerfield Beach scored 16.4 and Wallingford scored 17.0,”

explained Pounds. "During 1999, while working toward ISO certification, both labs increased their customer satisfaction scores to 18.3 and 18.9, respectively. In fact, both labs posted the largest gain in customer satisfaction measurements among all our laboratory divisions during 1999!"

"Within those regional markets, customers took notice of the changes," noted Pounds. "Competing labs even remarked on the service improvements our two labs accomplished within their regional markets."

To initiate the campaign for ISO 9000 certification, each lab division picks a project leader who works in tandem with the lab general manager (GM) and George Pounds. At Deerfield Beach, the key leaders were GM Jim Panzer and team leader Tonya Pate. At Wallingford, it was GM Elaine Labrecque and team leader Diane Amato-Tesin.

Project Teams In Each Lab

"In a lab of 700 employees, our project teams usually include 40 people," noted Pounds. "We've learned how to implement the ISO-required procedures without interfering with normal, day-to-day workflow."

"In fact, as these teams begin to document procedures and map processes," added Pounds, "they quickly identify ways of improving existing lab procedures to: a) reduce mistakes and errors; b) eliminate unnecessary steps; c) improve quality and productivity; or d) cut costs."

"Once teams begin to meet regularly, this happens quickly. Everyone gets quite excited when they actually see how ISO 9000 procedures contribute to creating a more rational, productive work environment."

"I would like to emphasize that these improvements can be substantial," observed Pounds. "Anyone who's worked in clinical laboratories knows that the number of missed courier pickups or lost specimens in

the lab is always higher than it should be—and it happens day after day."

Attack System Problems

"ISO 9000 procedures give laboratories the tools they need to attack these systemic problems," he added. "So you can understand why our lab employees, after fighting the same problems for years, get excited when work teams identify effective solutions to ongoing problems that current management systems have been unable to fix."

Pounds provided one interesting example of such improvements. "At Deerfield Beach, one project team looked at how couriers picked up samples on their routes. The existing situation was measured and studied. Improvements cut logistics errors by 64% in 2000 YTD over 1999's performance."

"There were similar stories at the Wallingford lab," he continued. "Patient service center metrics were dramatically improved in a variety of areas, such as patient wait times."

The demonstrated success of ISO-certification at Nichols Institute and the first three regional laboratory divisions has only strengthened the resolve of Quest Diagnostics' management to make it a company-wide initiative.

Cooperative Team Action

"The goal is to drive this management philosophy deeper into the culture of our company," noted Pounds. "It helps to remove the artificial barriers that separate people within our organization and enables them to team up in productive ways. It is motivating to see couriers, accessioners, med techs, medical directors, and the like come together in cooperative ways. I am convinced that we will be a much stronger company as a result of the ISO management philosophy."

Within the clinical laboratory industry, efforts at Quest Diagnostics

Six Sigma Soon to Arrive at Quest Diagnostics

Even as Quest Diagnostics Incorporated introduces ISO 9000 certification to its regional laboratories, it has another major quality management program quietly waiting in the wings.

It is called "Six Sigma Quality." This quality management system teaches companies how to achieve a defect rate of 3.4 per million in the products it makes or the services it delivers. The name "six sigma" comes from the goal of producing products and services that meet a quality specification that is within six standard deviations from the mean.

"Before Quest Diagnostics can succeed with a six sigma quality program, everyone in our company must have training in the management methods necessary to accomplish this daunting goal," stated Gary Samuels,

Director of Media Communications. "That is why our ISO 9000 program must be completed first."

Quest Diagnostics believes that ISO 9000, in tandem with Six Sigma Quality, can give it a strong one-two punch in the laboratory testing marketplace. If Quest Diagnostics can lift its customer service levels to a noticeably higher standard than competing labs, it will gain competitive advantage.

Because of this fact, laboratory executives and pathologists should pay close attention to the impact these programs have on the profits and success of Quest Diagnostics. Sustained success in this effort will definitely give other laboratory companies the incentive to introduce their own ISO and Six Sigma quality programs.

to become the nation's first ISO-certified laboratory organization may be a transformational event. It is widely-recognized in the international business community that a well-run company operated on a philosophy of quality management and quality leadership has a definite competitive advantage in the marketplace.

The examples are well-known, even to most laboratorians. In the 1970s, Japanese car manufacturers used quality management methods to capture huge chunks of the American auto market. They forced Detroit to "go quality" in order to survive. **Ford Motor Company's** slogan of "Quality is Job One" was a national sign of its commitment to these new management models.

THE DARK REPORT sees plenty of evidence that Quest Diagnostics' efforts to infuse ISO 9000 and Six Sigma Quality (*see sidebar above*) into its corporate culture will "raise the

bar" of quality in lab testing services. It intends to set a higher industry standard in the areas of common laboratory operational weaknesses, such as missed courier pickups, lost specimens, lab accidents, inaccurate billing, and other foibles familiar to laboratory administrators and pathologists.

Attract New Lab Clients

If Quest Diagnostics Incorporated can perform measurably better in these areas than competing labs, it expects that physicians and patients will recognize this difference and reward it with their business.

This is the reason why introducing quality management systems into Quest Diagnostics may well cause competing labs to adopt similar management methods. If this happens over the next few years, it will most likely bring welcome improvements in how laboratories operate and serve their customers.

TDR

Contact George Pounds at 949-728-4113.

Laboratory Web Watch

Intel & iMcKesson Fund Study Of Doctor-Patient Email System

IT'S CONSUMER DEMAND which motivated **Intel Corporation** and **iMcKesson LLC** to fund a study of how state-of-the-art email connectivity benefits physicians and their patients.

The study, announced on October 11, will be conducted at the **University of Michigan Health System (UMHS)** in Ann Arbor Michigan. Led by two internists, Steven J. Katz, M.D., M.P.H. and David T. Stern, M.D., Ph.D., the goal will be to measure and evaluate how electronic patient communications (read: "email") affect "practice efficiency, accuracy, and satisfaction of both physicians and patients."

UMHS physicians will use iMcKesson's "ePPI," an electronic provider-patient interface, to communicate with their patients. More than 120 physicians and their 35,000 patients will participate in what is described as "the first randomized, controlled study" of this type.

Huge, Unserved Demand

This research project follows on the heels of an earlier Intel-funded study by physicians at UMHS done in 1999. Researchers were surprised to learn that there was a huge, but unserved, demand by patients to communicate with their doctors using email. Intel officials said "the vast majority of patients were willing to use email to contact their doctors, but few physicians were actually communicating that way with patients."

The new study will begin in 2001 and will take three years. The study

will examine how iMcKesson's ePPI technology impacts the volume of patient telephone calls and visits as well as the "efficiency in timing of communication between patients, physicians, and their staffs."

Personal Patient Web Pages

iMcKesson's ePPI product is designed to avoid the privacy issues related to standard email. It establishes patient Web pages where information is updated. Patients are then notified to check their personal Web page to access any updated information. iMcKesson says that ePPI is now used by 37 practices across the country, involving 500 physicians and 33,000 registered patients.

Lab executives and pathologists should take careful note of the findings from the first study funded by Intel: increasing numbers of their patients want to communicate with doctors (and laboratories) using the Web, but few doctors (and laboratories) are responding to that demand.

Further, the willingness of Intel to fund this second-stage study with a prestigious academic health center demonstrates how corporations outside health-care are committing to spend significant amounts of money to transform the way physicians, providers, patients, and payers communicate and send information.

For hospital labs and independent labs seeking competitive advantage, it is clear that improved Web access to lab testing services and information is a big winner among a growing number of patients, as well as physicians. **TDH**

Lab Industry Briefs

Editor's Note: *There is a major push by many well-funded companies to convert lab test ordering and results reporting onto Web-enabled systems. Here's a sampling of what some companies are attempting to accomplish.*

AHT, MAKER OF DR.CHART, FILES BANKRUPTCY AND IS ACQUIRED BY BIOSHIELD

FOLLOWING A SUMMER OF SQUABBLES with would-be acquirer **Bioshield Technologies**, **AHT Corporation**, parent company of **Advanced Health Technologies, Inc.**, filed for protection under a Chapter 11 bankruptcy petition on September 22, 2000.

Advanced Health Technologies (AHT) is well-known in the laboratory industry. It owns the Dr. Chart® product, currently used by a large number of labs. Thus, financial difficulties at AHT could potentially cause disruptions to its laboratory customers.

However, just three days after AHT's Chapter 11 filing, BioShield Technologies announced that it would purchase the assets of AHT from the bankruptcy court for approximately \$15 million. It is providing interim financing of \$1.5 million and all creditors are expected to be paid in full.

What is interesting about the BioShield-AHT deal is not its on-again-off-again aspects (in July, BioShield signed an agreement to acquire AHT, but backed out within weeks). Rather, it is the role AHT might play in BioShield's grand strategic business plan.

Advanced Health Technologies is working to connect pharmacy and lab data in ways that are useful to clinicians. (*See TDR, November 1, 1999.*) This includes Web-based lab test order-

ing and results reporting. For its part, BioShield Technologies is developing **eMed.com**, a Web portal intended to offer productivity-enhancing tools to physicians and their staffs.

AHT already has contracts with the nation's two largest pharmacy benefit managers (PBM) covering 100 million lives. It also holds contracts with at least 60 laboratories, including **Laboratory Corporation of America** and **Mayo Medical Laboratories**.

BioShield's acquisition of AHT, with its lab-based Dr. Chart product, again confirms the importance for all e-health commerce companies to include laboratory testing in their service mix. These companies need the same daily working relationship with doctors that clinical laboratories have already developed with their physician clients.

In a final note on BioShield and its e-health ambitions, the company owns a laboratory operation organized specifically to allow consumers to order laboratory tests via the Internet. Despite the regulatory and legal impediments governing consumer self-ordering of tests, this lab company is actively doing business and learning how to serve consumers with its Web-enabled lab test ordering and results reporting system.

PROXYMED SELECTS NANCY HAM TO BE CHIEF OPERATING OFFICER

Another e-health company targeting physicians is **ProxyMed, Inc.**, based in Fort Lauderdale, Florida. Earlier this month, ProxyMed announced that Nancy Ham would become its new Chief Operations Officer.

Ham is familiar to clients of THE DARK REPORT. In her former position as

General Manager of Institutional & Connectivity Services at **WebMD** (formerly **Healthon/WebMD**), she was interviewed by THE DARK REPORT in November 1999 about Web-based lab test ordering and results reporting.

In January, Ham "retired" from WebMD. Her arrival at ProxyMed can be seen as a sign that ProxyMed has promising technology for creating a physician Web portal that includes features such as lab test ordering and reporting, pharmacy ordering, claims submission, and the like.

Alert readers of THE DARK REPORT will recall another interesting lab industry connection with ProxyMed. Starting in the fall of 1999, its CEO was John B. Oakkerse, Ph.D., the former President of **SmithKline Beecham Clinical Laboratories**. Oakkerse left ProxyMed earlier this year as part of a major financial re-structuring of the financially-beleaguered company.

For the first nine months of 2000, ProxyMed generated revenues of \$22.8 million. It has contracts with 42 laboratories and says 1,100 users have enrolled to use its Web portal. ProxyMed reports that, in the third quarter, it processed 395,000 prescription, laboratory results, and eligibility transactions.

WEBMD GETS NEW CEO, NOW MUST DIGEST MULTIPLE ACQUISITIONS

IT WAS ONE YEAR AGO that **WebMD Corp.** (formerly **Healthon/Web MD**) seemed to have an early lead in the race to introduce Web-based laboratory test ordering and results reporting between physicians and laboratories.

But the last 12 months have not been kind to WebMD. Its stock price tanked and Wall Street analysts criticized its rapid-fire series of acquisitions as too much, too fast.

Just two weeks ago, wunderkind executive Jeffrey Arnold resigned as co-CEO. This leaves Martin Wygood, Chairman of **Medical Manager, Corp.**, as the sole CEO of WebMD. He is expected to concentrate on integration and implementation. There are concerns about whether WebMD can succeed in making its acquisitions of **Envoy**, **Medical Manager Corp.**, **CareInsite, Inc.**, and **On Health Co.** work together.

When WebMD announces third quarter earnings, pay close attention to its disclosure on the number of healthcare transactions (pharmacy orders, lab test orders/results, and claims transactions) that it reports. This is the core business that the Healthon portion of WebMD was designed to serve. But growth in this business segment has been below the expectations of financial analysts.

WIRELESS REPORTING OF LAB TEST RESULTS TAKES A STEP FORWARD

TWO COMPANIES TO WATCH IN THE RACE to introduce wireless reporting of lab test results are **Data Critical Corporation** and **ePhysician**.

Data Critical Corporation (DCC) signed a contract with **Laboratory Corporation of America** that allows Data Critical's client doctors to order lab tests and receive lab test results on its MobileLab system, an unwired product. This is a first step for Data Critical, which wants to add lab test ordering and results reporting to its wireless products as soon as it is practical. It has both wireless and online charting products for physicians.

At ePhysician, there is a new agreement to combine its prescription-writing capability on hand-held computers to the electronic medical record (EMFR) developed by **MedPlus Inc.** This interconnectivity will enable ePhysician's wireless lab test ordering and reporting product (now under development) to connect to the EMR as well. **TDR**

INTELLIGENCE

LATE & LATENT
Items too late to print,
too early to report



Get ready for the stock market to begin creating multi-millionaires from today's generation of commercial laboratory executives. Most laboratorians know that **Roche** sold \$430.5 million of its stock holding in **Laboratory Corporation of America** stock only seven days ago. Lesser known is the fact that LabCorp executives Thomas McMahon and Brad Smith sold a total of 150,000 shares from their holdings, worth some \$13.7 million as of that date.

ADD TO: LAB MILLIONAIRES

There's a growing cadre of executives working for public lab companies who are positioned to make millions if the value of their stock options skyrockets. Waiting in the wings are executives from **Specialty Laboratories**, **American Medical Labs** and **Dynacare**—whose companies are preparing to go public. Unlike the 1990s, this decade is going to make a number of lab executives and pathologists extremely wealthy.

CELERA MAPS GENETIC CODE OF LAB MOUSE

For laboratorians watching the milestones on the road to widespread genetic and molecular diagnostics, here's an intriguing accomplishment. **Celera Genomics Group** announced that it has mapped 95% of the genetic sequence of the laboratory mouse. Celera's feat comes only four months after it and the government-funded **Human Genome Project** jointly announced the sequencing of the human genome. Comparison of the mouse and human genomes is expected to speed up the identification of genes and their functions. "It's stunning to sit in front of a computer and just scan through the data" because the genes just jump out, notes J. Craig Ventor, Celera's President.

MORE ON: MOUSE GENOME

Celera intends to sell its data on the lab mouse. Demand appears to be there. It already has five drug companies, eight academic institutions, and two biotech companies lined up as customers. Annual fee for drug

companies will be between \$5 million and \$10 million, while academic institutions will pay around \$6,000 to \$15,000 for each scientist accessing the data. Pioneering researchers indicate that side-by-side comparisons of the mouse and human genomes makes it both faster and easier to identify relevant gene segments.

BIG CHANGE MAY LIE AHEAD FOR SUMMER LAB CONVENTIONS

One of the more interesting feuds in the lab industry has been the ongoing summer convention battle between the **American Association of Clinical Chemistry** (AACC) and the **Clinical Laboratory Management Association** (CLMA). Annual meetings for both associations are just weeks apart. In recent years diagnostic manufacturers began complaining about the redundant expense of financing their exhibits at two locations. Grapevine gossip says a new agreement between the two lab associations will result in a combined annual meeting as early as the summer of 2002.

*That's all the insider intelligence for this report.
Look for the next briefing on Monday, November 13, 2000.*

THE **IR** **REPORT**

UPCOMING...

- ***Exclusive Interview: CEO of Ortho-Clinical Diagnostics Reveals Future Directions.***
- ***Why Capitation's Diminishing Role Is a Major Factor in PacifiCare's Financial Melt-Down.***
- ***Academic Hospital Labs Find Profits in Molecular Diagnostics.***
- ***How One Regional Lab Network Unseated A National Lab Company as the Market Leader in Its Region.***