From the Desk of R. Lewis Dark...



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

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Will Esoteric Testing Soon Undergo Consolidation?

WITH EACH INSTANCE OF LAB CONSOLIDATION, the commercial lab sector of the laboratory industry comes closer to a true duopoly. Economists define duopoly as a market substantially controlled by two companies. Economists believe that a duopolistic market shares many characteristics of a monopolistic market. Of course, in the clinical lab industry, the likely candidates for a duopoly are **Quest Diagnostics Incorporated**, with 2001 revenues of \$3.6 billion, and **Laboratory Corporation of America**, with 2001 revenues of \$2.2 billion.

When the market for physicians' office testing is viewed at the national level, many of us would agree that the two blood brothers have come to dominate. **Dynacare** and **Unilab**, both with estimated 2001 revenues slightly more than \$400 million, are the next closest competitors. In selected regional markets around the United States, Quest Diagnostics and LabCorp, individually or together, have market shares which would meet the economists' definition of monopoly or duopoly.

But in pondering the impact of Quest Diagnostics' acquisition of American Medical Laboratories, Inc. (see pages 2-5), I see another segment of the lab testing industry possibly evolving toward oligopoly (a market dominated by a handful of companies) if not duopoly. That lab testing segment involves hospital send-out testing. Today, at least seven labs compete actively in this segment and perform the majority of testing for hospital customers. These seven include AML, ARUP Labs, Esoterix, LabCorp, Mayo Medical Labs, Quest Diagnostics (including its Nichols Institute division), and Specialty Labs.

With AML becoming part of Quest Diagnostics (which had acquired Nichols Institute in 1994), that leaves six lab competitors in the hospital send-out market. ARUP, Esoterix, Mayo, and Specialty all have annual revenues of \$250 million or less and could easily be purchased by either of the two blood brothers, if their owners were willing to sell.

I will be first to observe publicly that consolidation of the hospital sendout testing market is a real possibility. Generous purchase offers often cause recalcitrant owners to sell. The \$500 million offered to AML's owners was certainly a big factor in their decision to sell the company and leave the marketplace. During the next five years, don't be surprised if the two blood brothers manage to acquire a couple more of the four remaining independent players serving the hospital send-out testing market.

More Consolidation: Quest Acquires AML

AML's owners decide ending company's independence is best financial option

CEO SUMMARY: In December. American Medical Laboratories, Inc. (AML) was preparing a second attempt to raise capital through an initial public offering (IPO). But a tempting purchase offer by Quest Diagnostics Incorporated led to a decision by AML's owners to sell the company. This transaction is reminiscent of Quest Diagnostics' bold move to buy SmithKline Beecham Clinical Laboratories in 1999.

American PURCHASING Medical Laboratories, Inc. (AML), Quest Diagnostics Incorporated continues the trend of commercial laboratory consolidation that started in the mid-1980s, but slowed in recent years.

The sale was officially announced on Thursday, February 7. Quest Diagnostics will pay \$500 million for AML. The price includes assumption of about \$160 million of AML debt. It is an all-cash transaction.

It was disclosed that American Medical Labs, based in Chantilly, Virginia, has annual sales of approximately \$300 million and EBITDA (earnings before interest, taxes, depreciation, and amortization) of \$40 million. That means Quest Diagnostics is paying a multiple that is slightly greater than 12 times cash flow

One interesting aspect to this transaction is that Ouest also gets LabPor**tal.com**, the start-up company that was selling a system for Web-based lab test ordering and results reporting between labs and physicians' offices. AML was the beta lab site for LabPortal's product and had purchased LabPortal before announcing its own sale to Quest Diagnostics.

THE DARK REPORT believes that the AML acquisition is a significant event in the market for lab testing services. First, it demonstrates that the two blood brothers continue to be ready buyers of independent lab companies. Moreover, sales prices are not at the discounted levels seen in the late

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R. Lewis Dark, Founder & Publisher.

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1990s. During the past 18 months, both Quest Diagnostics and **Laboratory Corporation of America** have paid generous prices to acquire selected independent laboratories.

Second, the concentration of AML's lab testing business into Quest Diagnostics eliminates one of the few remaining lab companies that was in a position to challenge the two blood brothers for routine testing in two regional markets—Las Vegas and Washington, DC—as well as in the national market for hospital send-out testing.

Tough Growth Challenges

Third, the decision by AML's owners to accept Quest Diagnostics' purchase offer must be seen as a sign of the difficulty of competing for market share in the lab testing community. After AML was acquired by the ownership team that included Tim Brodnik in May 1997, it put a high-powered sales and marketing team in the field and aggressively pursued new accounts from hospitals throughout the United States.

Effectively, after almost five years of professional effort and substantial revenue growth, AML's primary owner, the private equity firm of **Golder Thoma Cressy & Rauner** (GTCR), decided that selling to Quest Diagnostics for \$500 million was a better business proposition than remaining independent and selling shares to the public. This is market evidence that the challenges of building a clinical laboratory remain expensive and challenging.

Successful IPO Expected

However, there is another perspective on this argument. The financial community tells THE DARK REPORT that it is likely that AML would have successfully placed its IPO in December or January, making it a public laboratory company. It is reasonable to

assume that Quest Diagnostics looked at two factors. First, Quest believed the laboratory assets of AML were a good match for its own growth strategy. Second, acquiring AML prior to its public offering would prevent a tough competitor from acquiring the growth capital it would need to compete even more aggressively in the lab testing marketplace.

Of these two assumptions, Quest Diagnostics has publicly discussed the first. It has told the investment community that it plans to operate AML as a separate business division. Quest Diagnostics has said it intends to keep open AML's biggest lab facilities, in Las Vegas and Chantilly, Virginia.

There are specific plans for the Chantilly laboratory, which already does substantial volumes of reference and esoteric testing. Quest Diagnostics wants to develop it as the East coast "Nichols Institute." It has said that it needs additional laboratory capacity for reference and esoteric testing and, because of the impact of September 11, it sees value in having such sophisticated testing capability in operation on both the east coast and the west coast of the United States.

Continue Hospital Marketing

Further, Quest Diagnostics has indicated that it wants AML to continue its sales and marketing activities to hospitals and other types of reference lab clients. If true, it is an indication that Quest Diagnostics wants to expand its efforts to capture a larger share of send-out tests from the hospital segment of the marketplace.

That may be why Quest Diagnostics, in January, terminated a sales program that focused on developing collaborative marketing programs with individual hospitals and health systems. It laid off a number of individuals responsible for this program. The

AML Used Expanded Sales Campaign and Lab Acquisitions to Fuel Steady Revenue Growth

WHEN THE NEW OWNERS purchased American Medical Laboratories, Inc. in May 1997, it was a regional independent laboratory which had posted revenues of \$78.0 million for 1996 and offered reference testing to a select number of hospitals along the East Coast.

Under new ownership, the strategy was to convert AML into a national reference and esoteric laboratory, competing against such established players as ARUP Laboratories, Mayo Medical Laboratories, and Specialty Laboratories. (See TDR, May 12, 1997.) To achieve this, AML expanded its sales force. It currently supports 25 sales reps who sell reference and esoteric testing and 18 sales reps who market routine testing to physicians' offices in Las Vegas and Washington, DC.

timing of this move may indicate that Quest Diagnostics, once it knew it had a deal to buy AML, reassessed its strategy for selling to hospitals and considered this particular marketing program to be expendable.

Quest's purchase of AML and its stated intention to build AML's esoteric testing may have downstream consequences in group purchasing contracts. The crown jewel in AML's contract portfolio is its preferred provider status with **Health Trust Purchasing Group**, which serves the hospitals of HCA, Inc. (formerly Columbia/ HCA). Meanwhile, the Premier, Inc. preferred provider contract held by Quest Diagnostics will come up for renewal. AML's assets involving esoteric testing may help Quest Diagnostics in its efforts to retain that relationship.

For 1998 and 1999, AML's annual revenue climbed to \$102.7 million and \$143.4 million, respectively. In late 1999, AML paid \$107.2 million to purchase **Associated Pathologists Laboratories** (APL) of Las Vegas, Nevada. At that time, APL had revenues of approximately \$90 million. (See TDR, September 20, 1999.)

After consolidating APL's business, for 2000 AML reported total revenues of \$260 million. For 2001, AML is posting revenues of about \$295 million. This business is split as follows: esoteric testing (57%), about \$168 million; routine testing (36%), about \$106 million; toxicology testing (7%), about \$21 million. Since the arrival of AML's new owners in 1997, the company has increased its revenues by almost 380%.

Looking at the seller side of this transaction, AML's owners are very happy. In 1997, the group which included GTCR, Brodnik, Jerrold Glick, and Jack Bergstrom, paid \$23 million to buy AML. GTCR invested less than \$10 million in cash because it financed most of the purchase price. For that reason, the sale of AML to Quest Diagnostics for \$500 million represents a substantial profit.

The inclusion of LabPortal.com in the sale of American Medical Labs was probably an exit strategy for GTCR, which had financed its launch. Sales of LabPortal.com's product to support Web-based lab test ordering and results reporting have been disappointing. So it is not surprising that the equity investment firm wanted to terminate its involvement and concentrate on other investment opportunities.

Of greater interest will be how Quest Diagnostics changes its business strategy for expanding its share of the market for hospital send-out testing. To fully capitalize on the new resources it has bought from AML, it will need to integrate its existing sales and marketing team with that of AML.

Watching The Price Strategy

The prices offered to hospital lab customers by the resulting Quest/AML sales program will be closely watched. Quest Diagnostics' CEO, Kenneth Freeman, has repeatedly told Wall Street that his company does not want to make highly-discounted prices the primary method for acquiring new business. Yet discounted pricing has played a key role in AML's sales strategy in the hospital send-out market.

Over the past four years, AML has earned a reputation for offering uncomfortably low prices to gain new hospital lab clients. More than one competing esoteric lab has told THE DARK REPORT that AML offered individual test prices to hospital clients at a cost that was less than the kit price other esoteric labs paid in order to perform those same tests.

Increased Competition

Certainly the acquisition of AML is a sign that Quest Diagnostics intends to compete more aggressively for hospital send-out testing. If it does, then competition in this business segment will intensify, since competing laboratories like ARUP, Mayo, Specialty, and LabCorp will respond to protect their own business interests.

In the meantime, lab executives and pathologists should not be surprised that Quest Diagnostics not only wanted to buy AML, put was willing to pay a strong price to seal the deal. This is consistent with Freeman's bold purchase of **SmithKline Beecham Clinical Laboratories** (SBCL) in 1999. At the time, SmithKline Beecham Clinical Labs had

revenues of about \$1.3 billion. Freeman paid a total of \$1.27 billion, of which \$1.025 billion was cash, to purchase SBCL. (See TDR, February 22, 1999.) In the past 30 months, Quest Diagnostics has profited handsomely from that acquisition. From this perspective, the AML deal fits a formula already used by Freeman.

Further, there is an interesting wild card in this deal. AML CEO Tim Brodnik will become part of Freeman's executive team. Brodnik's ability to deliver sizeable increases in lab testing revenues have been demonstrated several times during the past two decades.

A Fit Within Quest?

However, will Brodnik's temperament and philosophy fit within Quests' existing corporate culture? If it does, possibly the entire Quest sales and marketing program might be infused with new energy. If it doesn't, then no one would be surprised if Brodnik departed Quest Diagnostics, waited out his non-compete, and surfaced again in another laboratory venture.

Certainly this is all speculation. But it is an educated guess about at least two scenarios which could result from the integration of AML into Quest Diagnostics.

Finally, there are at least two important insights for the handful of clinical laboratory owners that remain in the United States. One, profitable labs can attract a handsome sales price, based on the recent acquisitions of **PathLabs** in New Hampshire and American Medical Labs in Virginia. Two, there is still opportunity to make money in the lab testing market. But pathologists will need to invest more in their own businesses if they want their share of these profits. **TDB**Contact Robert Michel at 503-699-0616, or email: labletter@aol.com.

Lab Automation Subject Of "How To" Program

Experienced "Vets" to share experiences of introducing automation into their labs

CEO SUMMARY: Mastering lab automation is more difficult than it appears. The first-ever "Lab Automation Boot Camp" is assembling experienced lab administrators who have experience (and scars) in automation and are committed to telling the real story about making automation successful. It's a "no-spin zone" where truth is the goal and there is balanced reporting of the good and the bad of lab automation.

T's TIME FOR STRAIGHT ANSWERS to the tough questions that most lab administrators and pathologists have about lab automation and its effectiveness in day-to-day laboratory operations.

On May 9, a special "how to" day on laboratory automation will take place following the seventh annual *Executive War College* in New Orleans. A panel of early-adopter laboratory leaders will share their experiences and advice.

"During this full-day session, my goal is to provide laboratory managers with all the information they need to be successful with the specific lab automation solution they want to implement in their lab," stated William Neeley, M.D., Medical Director of Laboratories for **Detroit Medical Center**. Dr. Neeley will present and also facilitate at the lab industry's first-ever "Lab Automation Boot Camp."

"Making presentations will be lab administrators and pathologists who have already implemented lab automation solutions," explained Dr. Neeley. "They are eager and ready to talk about the wonders and the warts of the automation systems they bought, how to bring them on-line, and how to get them to work to their full potential."

Learning About Options

The day will start with an analysis of how lab automation started in Japan and why it was "imported" into the United States. There will be an overview of the different types of lab automation available and how to understand the differences in total laboratory automation (TLA), modular automation, workstation consolidation, and task-oriented automation.

"This information is specifically tailored to meet the needs of both big and small hospital labs," noted Dr. Neeley. "We will discuss ways to approach lab automation that don't require substantial investment of capital or management expertise. Once you understand some of the important 'do's and don'ts' about automation, it becomes easy to identify the types of

automation solutions that are right for your lab and will deliver great performance with a minimum of disruption."

Picking The Right Solution

Knowing what type of automation is best for a specific lab will be discussed by Dixie McFadden, Administrative Director of Laboratories for **Kaiser Permanente Northwest**, in Portland, Oregon. Kaiser spent three years doing a rigorous assessment of the economics, functionality, and needs of its new core lab facility.

Upon completing this detailed analysis, Kaiser's conclusions about what automation solutions best met its needs were surprising. McFadden will share insights about the methods Kaiser used to justify capital expenditures, while insuring that desired gains in lab productivity and quality are achieved.

There will be presentations that address "how to" techniques to prepare the lab for implementation of an automation project, to benchmark and improve productivity on a continuous basis, and to solve the information linkage problems between LIS and LAS (lab automation system) software.

Big and Small Labs

"These topics squarely hit the needs of big and small hospital labs that are considering some type of automation project," said Dr. Neeley. "It's a great opportunity to learn from, and network with, some of the smartest minds in laboratory automation. Our faculty, having been among the earliest labs to implement automation, have plenty of good lessons about what works—and what doesn't."

Following these how-to sessions, there will be a case study of total lab automation (TLA). In Burnaby, British Columbia, **MDS Metro Laboratory Services** implemented its first automation project seven years ago. During

the past two years, it has upgraded to a second generation TLA installation. Project manager Robbie Bowers will present the case study, offering performance and productivity data stretching back almost seven years. She will also explain the lessons learned during this time, as well as the pitfalls to avoid.

"In a true sense, there has been a vacuum of accurate and detailed information about the effectiveness of lab automation in real lab settings," stated Robert L. Michel, Director of the *Executive War College* and Editor-In-Chief of The Dark Report. "Certainly some of the earliest attempts to automate clinical laboratories fell far short of the expectations of both the vendor and its lab customer. But that's less true today.

Get The Right Answers

"In fact, the trend today is for both large and small hospital labs to consider some type of automation solution as a way to cope with the shortage of trained med techs, while at the same time improving lab services," added Michel. "For labs which are interested in lab automation, this 'how-to-do-it' session is the perfect place to get the right answers and avoid having to reinvent the wheel as they implement their own automation project."

"My lab at Detroit Medical Center is like many other hospitals," noted Dr. Neeley. "Because there's not much money available to invest in the clinical laboratory, we must be both cost-effective and clever in the types of automation solutions we buy and implement. For example, I've learned how to accomplish a great deal without excessive demand on the hospital IT department. This allows us to move more quickly when we introduce a new project involving lab automation."

Contact William Neeley, M.D. at 313-966-0005.

Learn Success Secrets of Lab Automation From Early-Adopter Laboratory Leaders

t's a first-ever, full-day learning intensive on lab automation. Each faculty speaker has hands-on experience with automation projects in his or her lab.

Learn directly from laboratory peers who've already gone through the hard knocks of making their automation project successful. This special "Lab Automation Boot Camp" is designed to meet the needs of both small and big hospital labs.

Lab Automation Boot Camp

Following the Executive War College at the Astor Crowne Plaza Hotel, New Orleans, Louisiana

Agenda	for	Thursd	lay	May	9,	2002
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8 a.m. — 8:30a.m. What You Need to Know about Different Lab Automation Solutions

William Neeley, M.D., Medical Director of Laboratories,

Detroit Medical Center, Detroit, Michigan

8:30 a.m. — 10 a.m. The Lab Automation Story: Why Japan Developed It; How it Got to the

United States; and Understanding Today's Automation Solutions

Rodney S. Markin, M.D., Ph.D., Professor & Vice Chairman,

Department of Pathology,

University of Nebraska Medical Center, Omaha, Nebraska

10:15 a.m. — 11 a.m. How to Identify Your Lab's Needs, Then Buy the Best Automation Solution

Dixie McFadden, Administrative Director, Laboratories

Kaiser Permanente Northwest, Portland, Oregon

11a.m. – 11:45 p.m. "Must-Know" Secrets to Prepare Your Lab and Implement Lab Automation

George Krempel, Associate Vice President, Healthcare Services

Loyola University Medical Center, Chicago, Illinois

1 p.m. — 1:45 p.m. Fine-Tuning Your Lab's Automation Project: What to Benchmark and How to

Generate Ongoing Productivity Gains

Douglas Jaciow, Director, Pathology Services Baystate Health System, Springfield, Massachusetts

1:45 p.m. - 2:30 p.m. Making LIS and LAS Mesh: Getting Information Systems to Support

Automation's Success

Lee Green, CEO

Triple G Systems Group, Inc., Markham, Ontario, Canada

2:45 p.m. — 3:30 p.m. Case Study — MDS Metro Laboratory Services, Vancouver, BC

Robbie Bowers, Project Coordinator

3:30 p.m. - 4:15 p.m. Panel — Lab Automation "Best Practices": Essential Lessons for Success

Panel: Dr. Markin, McFadden, Krempel, Jaciow, Green, Bowers.

Moderator: **Dr. Neelev**

4:15 p.m. – 4:30 p.m. Summary, Conclusions, and Recommendations

William Neeley, M.D.

4:30 p.m. Official End of Lab Automation Boot Camp

To register or for more information, call 800-560-6363 or go to www.darkreport.com

Albert L. Nichols, M.D. Founder and Chairman of Nichols Institute, 1935-2002

He Created A New Lab Business Model

How Dr. Al Nichols Changed The Lab Testing Marketplace

With Nichols Institute, he fundamentally altered the lab testing industry and created a new channel for developing esoteric testing and delivering it to clinicians.

CEO SUMMARY: At a time when lab testing meant routine assays performed within a few miles of the collection, Albert L. Nichols, M.D. envisioned a centralized national laboratory devoted to performing specialized, highly-complex testing to clinicians everywhere. Not only did his vision become the reality of the lab we know today as Nichols Institute, but in building his dream Dr. Nichols literally created the business structure for the fast growing esoteric testing industry.

By Robert L. Michel

N JANUARY 26, 2002, Albert L. Nichols, M.D., founder of Nichols Institute, died quietly in his home in Aspen, Colorado. His death was a surprise, as he was 67 years old and in good health.

Within the lab industry, news of his passing spread quietly, but quickly. It triggered a moment of reflection among those who knew Dr. Nichols personally. He was a remarkable individual, whose strength of character and mission to advance patient care created a unique

business model for lab testing. His business model is widely emulated today.

It is because of Dr. Nichols that the lab industry today has a thriving class of lab companies organized to provide reference and esotoric testing to national and international healthcare markets. It is no coincidence that the name "Nichols Institute" continues to command respect as a source of quality, innovation, and service, despite that fact that Dr. Nichols ended his active role at the institute when he sold it in 1994, some seven years ago. Such is the deep impact he left upon the laboratory industry.

For that reason, I believe it is useful to review the accomplishments of Dr. Nichols. The marketplace for reference and esoteric testing today was greatly stimulated and shaped by his activities at Nichols Institute.

The ways in which Nichols Institute grew and evolved still have much to teach us today about lab and pathology management. In reviewing the business story of Nichols Institute, I will use the recollections of individuals who worked at Nichols Institute during its earliest days.

The personal experiences of these individuals speak most accurately to how and why Nichols Institute grew and became a business role model for reference and esoteric testing. As well, these personal insights into the character of Dr. Nichols also provide clarity about his personality and beliefs.

Fascinating Story

The story of Nichols Institute has many interesting facets. An endocrinologist by training, Dr. Nichols was a research fellow at the **UCLA Harbor Medical Center** in San Pedro, California. As the 1960s ended, he developed a specialty test for thyroid testing and recognized that it had important clinical potential. To commercialize and offer this test, in 1973 Dr. Nichols organized the laboratory company that became Nichols Institute. Its first home was

upstairs over a bait shop in San Pedro. The building was owned by Mary Pickford, the silent screen movie star. Like all new businesses, the institute had its share of growing pains. One person who started his 23-year career at the company was Ref Lindmark, now living in Seattle, Washington.

"I was hired on Valentine's Day, February 14, 1974," stated Lindmark. "I was to be the courier for San Francisco, and I was the first employee to be based outside of Southern California. At that time, I believe there were between 30 and 50 employees. Courier services were active only in the Los Angeles area, Santa Barbara, and San Diego.

"When I started in 1974, we offered only 13 tests," he continued. "These were mostly thyroid assays. Compared to lab operations today, things were very basic. That's because most lab testing was performed locally. So all the methods and infrastructure to collect specimens, transport them, report results, and keep track of things had to be invented as Nichols Institute expanded its business."

In fact, the system used by Lindmark to shuttle specimens and test reports back and forth between San Francisco and San Pedro was state-of-the-art at the time. "My transport container was a Coleman ice chest. In the evenings, I would load in the specimens, stuff it to the top with dry ice, drive it down to the Greyhound bus

Clinical Integrity, not Marketing Hype

Academic Associates were involved in all aspects of the business, not just research. In any given week, you would see the Academic Associate in the lab refining the technology, but also working in finance or marketing alongside the staff to bring the test to the local clinician. Many times the Reference Lab ate the cost of a new brochure when, as the academic associate reviewed it, they would say, "Hey, this is too much hype. This isn't the clinical truth!"

It was this type of integrity that Wayne Patterson, PhD, observed while serving as president of Nichols Institute Laboratories from 1980 until 1991. "It all came from Dr. Nichols," Patterson said, "and was emulated by the people closest to him—that strong commitment to the patient —that the right test and the right result were what was best, and that the profit would follow." This ideal was quickly assimillated by the staff and even clients of the "Institute."

station and load it on a bus heading south. Each morning I would return to the bus station and pick up another ice chest coming from the laboratory. This was filled with lab test reports, which I would distribute during the day."

Those were pioneering times for the entire commercial lab industry. Lindmark watched, first-hand, as the business grew and Dr. Nichol's success began to shape the competitive marketplace for lab testing. "His enthusiasm and commitment touched everyone around him," recalled Lindmark. "He built this business exclusively on specialty testing.

"Until Dr. Nichols came along, commercial labs offered only routine testing," he added. "That changed once clinicians had the opportunity to order specialty lab tests from us. His success in the marketplace forced **Bio-Sciences Lab** (acquired in the 1980s by **SmithKline Beecham Clinical Laboratories**), then one of the dominant commercial lab companies in Los Angeles, to add specialty tests to their existing menu of routine tests."

Steady Revenue Growth

Dr. Nichols' fledgling lab company was growing steadily. By 1979, sales were a respectable \$3 million per year. In 1980, Nichols Institute moved to San Juan Capistrano. The move was timely, because the company was about to expand at an accelerated rate.

Bernie Ness, once Vice President of Sales at Nichols Institute and now President of **B.J. Ness & Associates**, based in Toledo, Ohio, was joining the company just prior to the move from San Pedro. "It was June 1979 when I took a job as a sales rep at Nichols Institute," stated Ness. "At that time, there were six other sales reps. What set me apart from them was that I was the first individual hired in sales at Nichols who did not have an advanced scientific degree, like an M.S or Ph.D.!"

Lots of Ph.D.s In Sales

Even in the 1970s it was unusual to have a sales force comprised exclusively of Ph.D.s. However, that reflected Dr. Nichols' philosophy about the importance of science. His lab company was deeply rooted in the application of medical science to diagnostic testing. This is one reason why, throughout his business career, Dr. Nichols' favored placing individuals with advanced scientific degrees in positions of executive authority.

"Not surprisingly, all these sales reps with technical degrees were spending most of their time prospecting researchers and selling testing that supported the researchers' studies and projects," said Ness. "Dr. Nichols had assembled a sales team of degreed people who knew this market well.

"From a sales perspective, however, this was a relatively limited market and it sometimes took months for a new study to actually begin," he recalled. "Since I was new with the company, I needed to find clients that could generate testing on a faster basis, so I started calling on hospitals."

"I discovered there were two tests I could sell at just about any hospital," Ness explained. "The tests were the estrogen and progesterone receptors for breast cancer and the parathyroid hormone test (PTH). At the time, there was only one other laboratory in the United States offering these tests and its turnaround time was 40 days. That gave us a real competitive advantage."

Ness had enough success selling to hospitals that Nichols Institute began shifting its marketing emphasis away from the research segment. "We learned that hospitals were eager to find a quality source for reference and esoteric testing," commented Ness. "And hospitals certainly represented a large potential market."

Rapid Growth to \$50 Million

During the decade of the 1980s, Nichols Institute would prove that hospital demand for reference and esoteric testing was larger than anyone imagined. At the time of the move to San Juan Capistrano in 1980, Nichols Institute was generating annual revenues of \$3 million. In 1985 it successfully placed an initial public offering (IPO), making it a public company. By 1988, revenues at Nichols Institute had reached \$50 million.

By 1988, another significant characteristic of Albert Nichols had revealed itself—Dr. Nichols was doggedly unwilling to give up control of his company. Even after taking his company public and raising debt capital that would eventually total \$100 million, he retained 80% control over the class of stock entitled to vote.

Sustained Growth

Maybe he accomplished this because investors were impressed by his company's success. As well, the growth of Nichols Institute was matched by other labs competing in this market. Mayo Medical Laboratories was growing in a similar fashion. Also, by mid-decade, ARUP Laboratories, Inc. was formed specifically to compete for reference and esoteric testing. Most of the public lab companies were establishing reference and esoteric testing lab divisions during this decade as well.

Certainly the financial success of the Nichols Institute business model in the late 1970s and early 1980s had attracted the attention of competitors. But the next chapter in the story of Nichols Institute would take the lab company in a different direction.

Flush with cash from its public stock offering, during the second half of the 1980s, Nichols Institute went on a buying spree. It acquired commercial laboratory operations in California, Texas, Missouri, Nebraska, South Dakota, and Oregon.

The first laboratory acquired at the start of this buying spree was **Bio-Diagnostics Laboratories** (BDL), based in Torrance, California. At the time, Alfred Lui, M.D. was President and CEO. "Because of our proximity to Wilmington and San Pedro, most of our pathologists knew Dr. Nichols personally," he said. "The business relationship with Nichols Institute was expected to benefit both parties."

Under the arrangement, Nichols Institute had a 51% interest in BDL. "It would not be an understatement to say that Dr. Nichols felt frustrated that he was not able to exercise full control over the venture," noted Dr. Lui. "It didn't take too long before both sides agreed to end this business arrangement and BDL was repurchased by its original owners."

Academic Associates Concept

Dr. Lui's professional relationship with Dr. Nichols and Nichols Institute continued for many more years. "Al Nichols was brilliant in creating a business out of specialty testing," observed Dr. Lui. "His creation of 'Academic Associates' was a masterstroke. He really grasped the opportunities that could come from bridging knowledge created in research laboratories with the needs of clinicians."

The experience of the BDL investment did trigger one significant change in Dr. Nichols' lab acquisition strategy. From this date forward, he only purchased laboratories where he would have 100% control.

It is also important to remember that this was a time when all the public lab companies were competing to buy local independent commercial labs. Such companies as SmithKline Beecham Clin Labs, MetPath, Damon, National Health, Roche Biomedical, and Allied were racing each other to buy the best independent labs.

Lab Consolidation Wave

As long-time readers of THE DARK REPORT know very well, this wave of commercial lab consolidation ended badly for all these companies. By 1995, only MetPath, SmithKline Clinical Labs, and Laboratory Corporation of America (formed when Roche bought National Health) remained. All three companies endured several years of financial disaster before regaining profitability.

But that gets us ahead of the story. By 1990, Nichols Institute was approaching \$300 million in annual revenues. But only about \$80 million of that came from the reference and esoteric testing division. The regional routine testing labs were actually the largest revenue generator for the company. These labs offered routine testing to physicians' offices and were generating about \$170 million per year in revenues for Nichols Institute. Divisions selling diagnostic kits and toxicology testing rounded out the balance of Nichols' revenue base.

1990 would be the high water mark for Nichols Institute as an independent public company. It was profitable, its share price was up, and the future looked good. But in Dallas, the seeds of Nichols' downfall were sprouting.

As the 1990s started, Dr. Nichols was spending almost \$20 million to construct a state-of-the-art laboratory in Dallas, Texas. Approximately 25 hospitals had indicated that they would feed specimens into this lab. It had the potential to be a financial home run for everyone involved. But success was not to be.

Dallas Lab Lost Money

As this laboratory opened for business, it did not receive specimens as expected from hospitals in the region. Losses mounted and by 1991 Nichols Institute posted a significant loss. Things unfolded rapidly after 1991.

With \$100 million in debt, the creditors of Nichols Institute became increasingly restless with the company's dismal financial performance in 1992 and 1993. These creditors began to exert substantial pressure on Dr. Nichols and his executive team. Share values had declined from a high approaching \$20 to under \$5 by 1994.

The direct cause of Nichols' sale to MetPath, announced in May 1994, was

the fact that the Institute could not make a sizable paydown of principal on its credit line that spring. It was the classic business squeeze: adequate assets but inadequate amounts of liquid cash.

As a result of MetPath's purchase, Dr. Nichols received around \$40 million for his ownership interest in Nichols Institute. MetPath took title to the company in September 1994 and Dr. Nichols became a director on the board of MetPath's Nichols Institute Division. Within a year or so, Dr. Nichols resigned from these duties and began to pursue professional and personal interests that were primarily outside the diagnostic testing industry.

Strong Development Team

Although the ending for Dr. Nichols was bittersweet—he retired with ample money, but was not in control of his company—his legacy is unquestioned. The esoteric and reference testing industry which flourishes today is based, in large part, on the business model pioneered by Dr. Nichols.

As an individual, his energy and charisma touched and inspired many individuals who remain active and influential in the lab industry today. I am one of those, having been hired by Nichols Institute in 1991. As a businessman, he pointed the lab testing industry toward the boundary where research can contribute to improved patient care.

If he had a mantra, it was patient care. Lindmark recalls it succinctly, "Dr. Nichols continually said that 'if you focus on the patient and do what's best for the patient, you'll be right 99% of the time.' As a physician, he was committed to improving medicine and patient care."

Contact Bernie Ness at 800-280-3785, Alfred Lui, M.D. at 310 225-3145 and Wayne Patterson, PhD at 303-841-7168.

Institute's Mission Described by "QRISP"

ALTHOUGH HIGHLY-RESPECTED for the technical quality of his lab's testing, Dr. Nichol's did not overlook the importance of profits to the success of his laboratory company. He believed that profit would drive the highest level of innovation and service, to the benefit of patients.

"Everybody who worked at Nichols Institute knew the acronym 'QRISP' and what it stood for," said Ref Lindmark, a 24-year employee at the institute. It was Dr. Nichols' concise mission statement and he wanted everyone connected with his company to live up to the full meaning of these concepts."

The QRISP acronym breaks down as follows:

Q is for QUALITY

R is for RESPECT

I is for INNOVATION

S is for SERVICE

P is for Profits

"Profits were included because Dr. Nichols wanted everyone to know that profits were necessary if Nichols Institute was to have the resources necessary to fulfill its clinical mission and develop more diagnostic assays that would help clinicians and patients," explained Lindmark

Story Update

Hospital Mergers Decline For Third Consecutive Year

ERGERS AND ACQUISITIONS involving hospitals declined for the third straight year, according to Modern Healthcare's eighth annual study of hospital consolidation activity.

During 2001, there were only 272 hospitals involved in mergers or acquisitions. This is a 14% decline from the 318 hospitals involved in M&A deals during 2000. Modern Healthcare

also determined that the total number of transactions in 2001 was 95, a 26% reduction from the 129 deals done in 2000.

THE DARK REPORT tracks these numbers annually. As the table at right shows, peak years for hospital dealmaking activity were 1995-1999. It was this frenzy of dealmaking that led to consolidation of hospital owner-

ship, centered primarily in about 600 integrated health networks (IHN). This consolidation of hospital ownership was the direct impetus to widespread consolidation of hospital laboratories, a trend that was most active between 1997 and 1999.

First To Make The Connection

THE DARK REPORT was first in the lab industry to link the number of hospitals involved in mergers and acquisitions to the volume of hospital lab consolidation projects. As multiple hospitals come under a common management, invariably it was laboratory testing which became the first clinical department to undergo reorganization and consolidation.

Lab Consolidation Impact

The decline in hospital M&A activity for the third consecutive year is a sign that hospital lab consolidation will continue to be a minor trend in the lab

industry. What is most notable about last year is that "2001 was more about disaffiliation than substantial merger and acquisition activistated Michael Peregrine, an attorney specializing in healthcare with Gardner. Carton & Douglas, based in Chicago, Illinois. During 2001, there were a number of health systems that were unwind-

ing ownership of physician group practices and HMOs.

THE DARK REPORT believes that the decline in hospital M&A also reflects two other important facts. One, hospital profits have improved during the past few years, easing the pressure on hospital CEOs to do deals. Second, once the tidal wave of dealmaking subsided, IHNs have found it challenging to operate multiple hospitals efficiently, thus discouraging further acquisitions. TDR

Hospital Merger Activity is Slowing

<u>Year</u>	# Involved <u>Facilities</u>	# of <u>Deals</u>
2001	272	95
2000	318	129
1999	530	142
1998	687	198
1997	627	217
1996	768	235
1995	735	230
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Source: Modern Healthcare

Lab Industry Briefs

ARUP TO USE PROXYMED FOR BROWSER-BASED TEST ORDERS & RESULTS

ARUP LABORATORIES, INC. and **ProxyMed, Inc.** signed an agreement that makes ProxyMed's ProxyLabSM the preferred product for browserbased lab test ordering between physicians and ARUP's hospital clients.

The two companies will jointly market this product. It is designed to allow physicians to both electronically order tests and receive results from their local hospital laboratory. It is a value-added service designed to support the laboratory outreach programs of ARUP's hospital clients.

ARUP is the second reference lab to implement this type of service on behalf of hospital clients. It illustrates how competition is stimulating the national reference labs to bring enhanced services to this market segment as a way of differentiating themselves from competing labs.

Alert readers will recall that Proxy-Med inked a separate deal last November to use the technology of **Atlas Development Corporation** to drive ProxyLabSM's lab test ordering and results reporting functions. (See TDR, November 21, 2001.) Atlas' technology allows the same software product to operate in such modes as thick client, thin client, lab-hosted, and ASP.

NON-INVASIVE AND RAPID TESTS MAKE NEW INROADS AT MAJOR LABS

IN RECENT YEARS, the technology supporting non-invasive testing and "rapid" diagnostic assays has made great strides. Two public labs have recently added such assays to their test menu. Unilab Corporation will now offer a non-invasive HIV-1 test developed by Calypte Biomedical Corporation. It is a urine antibody assay that was recently approved under California licensing requirements. Studies indicate that when this assay is coupled with the urine western blot test, it provides equivalent accuracy to HIV blood tests.

Quest Diagnostics Incorporated signed a distribution agreement with American Bio Medica Corporation. It will be come the exclusive distributor of a rapid, urine-based test for drugs of abuse. American Bio Medica's Rapid Drug Screen point-of-collection drug testing line has kits that can test for one to nine drugs at the collection sites. Any positive samples will then be sent to Quest Diagnostics for confirmation.

Expect both Unilab and Quest Diagnostics to begin marketing these tests to selected clients, emphasizing the non-invasive benefit (Calypte's HIV-1 test) and the immediate answer for negative screens (American Bio Medica's point-of-collection rapid drug tests). Should lab testing customers respond favorably to these benefits, it will represent a change in customer expectations.

VENTANA SYSTEMS MOVES TO EXPAND PRODUCT LINE; POSTS STRONG GROWTH

Many of the recent changes at **Ventana Medical Systems** have gone unnoticed by most in the lab industry. The Tucson-based company is working diligently to expand its products and services.

During 2001, Ventana introduced two new probe assays which were well accepted by the lab marketplace. One was a fully automated Inform Her2 neu gene test. The other was a slide-based HPV test for specimens prepared from either tissue or liquid methodologies.

To further its plans for its own proprietary imaging system products, Ventana recently invested \$1.8 million in **Molecular Diagnostics, Inc.** (MDI, formerly **Ampersand Medical, Inc.**) and will utilize several MDI products.

Ventana's fourth quarter revenues were \$25.5 million, an increase of 47% over the same quarter last year. Full year revenues were \$87.8 million, which was a 23% increase over 2000 revenues of \$71.1 million.

WEBMD NAILS A CONTRACT WITH MISYS HEALTHCARE

MAYBE THE LONG-TROUBLED **WebMD**, **Corporation** is ready to pursue its vision of an Internet-connected health-care system. It's also a reminder that, although the dot.com bust slowed the move toward e-health services, the revolution still moves forward.

It was announced on January 29 that **Misys Healthcare Systems** would "integrate WebMD's full suite of batch and real-time transaction processing services into its extensive range of products and to exclusively use WebMD's network of connections to commercial healthcare payers across the United States for the processing of covered services, including claims submission, referral, eligibility verification, and pre-certification."

Put more simply, this means that Misys, formerly known as **Sunquest**, will use WebMD's transaction processing capabilities in all the products it sells to hospitals, laboratories, and physicians (who use its Medic software system).

Back in 1999, transaction processing was the primary business objective of Healtheon/WebMD. But then came WebMD's string of healthcare acquisi-

tions, which sent it down a different business path, resulting in the loss of billions of dollars.

WebMD's ability to successfully serve Misys should be watched closely. During 2000, many clinical laboratories negotiated with WebMD to acquire and implement its lab test ordering and results reporting product. But the company could not deliver and eventually pulled the plug on its laboratory product. That resulted in a number of unhappy laboratory customers.

One primary competitor to WebMD is **MedUnite**, a company created and funded by some of the nation's largest insurers. MedUnite is now entering the lab marketplace, so expect the competition to heat up as sales reps visit laboratories looking for business.

IMPATH MOVES TO LINK RADIOLOGY DATA AND PATHOLOGY DATA

Not only does **IMPATH**, **Inc.** have a grand strategy for converting anatomic pathology data into valuable information, but has the money and resources to pursue that vision.

IMPATH's latest deal is a strategic alliance with **Varian Medical Systems, Inc.** to develop "software interfaces linking radiation and medical oncology databases with tumor registries." This announcement follows by just four weeks IMPATH's contract to purchase **Tamtron Corp.**, which sells anatomic pathology software systems.

The goal is a create a single-entry system for cancer patient demographics, treatment protocols, and outcomes. This information would then move between radiology departments, oncologists, and the tumor registry. Varian's participation is an example of how manufacturers are becoming involved in the downsteam use of clinical data captured by their instrument systems.

INTELLIGENCE ATTING Items too late to print, too early to report



Lab execs and pathologists should pay close

attention to this fact: Internet use by Americans significantly increased again last year. The Commerce Department reported that, as of September, 143 million people in the U.S. were using the Internet. This is 54% of the population and represents an increase of 26% from one year earlier. E-mail is the most popular application. Of equal significance, Web use by Blacks, Mexicans, and rural residents rose by 33%, 36%, and 24%. This demonstrates that socio-economic barriers are not affecting access to the Internet. Because health is the number one use of the Internet, labs should have a strategy to address patients using the Web.

CERNER CORP GETS ISO CERTIFICATION

On January 22, Cerner Corporation announced that it had received ISO 9001: 2000 certification. With that accomplishment, it joins Siemens Medical Systems and Misys Healthcare Systems in achieving one of the various ISO certifications.

OVARIAN CANCER TEST LOOKS FOR MULTIPLE PROTEINS

It's an exciting new discovery in diagnostics. In a study involving 116 specimens, researchers used a unique test and correctly identified all 50 patients with ovarian cancer, including 18 with Stage 1 cancer, considered highly curable. Of the 66 patients who were negative for cancer, the test incorrectly identified five women as positive. What makes this test unique is that, unlike most assays which measure a single substance, this test evaluates five different proteins, which, if they appear in certain patterns, trigger a positive reading.

MORE ON: OVARIAN CANCER

Researchers from the National Cancer Center, the FDA, and Correlogic Systems, Inc. of Bethesda, Maryland developed this test. A computer algorithm is used to evaluate the patterns of the five target proteins. The DARK REPORT has long predicted that computer programs would be developed that would identify clinically useful diagnostic

information from an analysis of multiple sets of lab test data. The software would search for patterns across a specific patient population and would then apply those clinically useful patterns to the test results of individual patients.

COMINGS & GOINGS:

- Where does a hard-working pathologist go after selling his clinical laboratory to one of the two blood brothers? Hawaii, of course! Alfred Lui, M.D., formerly President and CEO of Bio-Diagnostic Laboratories in Torrance (now owned by LabCorp), can now be found working several days per week in Honolulu as part of the pathology staff of Diagnostic Laboratories.
- It was last fall when John Littleton retired from his position as National Sales Manager at Specialty Laboratories to return to the East Coast. But apparently "retirement" was not to his liking. Littleton has taken a position with USLabs and will manage its sales activities in the Northeast United States.

That's all the insider intelligence for this report. Look for the next briefing on Monday, March 11, 2002.

PREVIEW #5

EXECUTIVE WAR COLLEGE

May 7-8, 2002 • Astor Crowne Plaza Hotel • New Orleans

Topic: Managing the Rural Hospital Lab Into A Value-Added Revenue Generator

Even laboratories of 200-bed hospitals in rural communities can generate impressive gains in testing services while reducing costs. Learn methods for attracting increased numbers of specimens that generate profitable reimbursement. Explore ways to use targeted automation solutions to boost productivity and lower average cost per test, year after year!

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UPCOMING...

- What's Up With Joint Ventures Between Hospitals and Commercial Labs? Learn Why Few New Deals Are Happening.
- Ways to Tap Overlooked Sources of Trained Medtechs and Histotechs.
- Local Pathology Powerhouse Chases National Path Labs Out of their City: How a Simple Strategy Tipped the Competitive Scales.

For more information, visit: www.darkreport.com