



## Disruptive Technology/Innovation

By Michael R. O'Leary, M.D., CEO

Disruptive technology is a term coined by Harvard Business School professor Clayton Christensen to describe a new and unexpected technology that displaces a long-established one. Such novel innovations often are of limited interest at first, but eventually they completely overturn existing products and/or markets. Several examples include digital photography, which sent sales of "old-fashioned" film plummeting, and online retailing, which continues to erode the revenue of brick and mortar stores.

Disruptive technologies or innovations often come into being from unlikely sources. They rarely emerge from big organizations and are often shunned as unprofitable opportunities. Why? Large companies are often comfortable with their current technologies/products which have garnered significant market share. Recall the very negative reaction of Swiss watchmakers to the early electronic watches that were more accurate and affordable! Electronic or battery-powered watches are so popular now because they are more accurate, more convenient and less expensive.

Many of the most powerful innovations that disrupted other industries did so by enabling a larger population of less-skilled people to do things in a more convenient, less expensive setting that historically could be performed by expensive specialists in centralized, inconvenient locations.

For example, in the 1960s, when people needed computing help, they had to go to large, corporate mainframe computer centers to have data-processing specialists run a job for them. Minicomputers and then personal computers were disruptive technologies to the mainframe computers. At the outset, minicomputers and personal computers were not as capable as mainframes and therefore, the professionals who operated the mainframes (and the companies that made them) discounted their value. However, minicomputers enabled people to solve problems for themselves which once had required centralized computing facilities. Personal computers

certainly have enabled the technically-challenged masses to compute in the convenience of their homes and offices.

Nearly every disruptive innovation in history has had the same impact. George Eastman's camera made amateur photography widespread. Bell's telephone let people communicate without the need for professional telephone operators. Photocopying enabled office workers to do things that historically only professional printers could do. Disruptive technologies have been one of the fundamental mechanisms through which the quality of our lives have improved and the disruption has left the consumer far better off than they had been!

The current debate over health care reform has shown a deeply divided nation but there is one point that most agree on: our current system needs to be transformed. Perhaps disruptive innovations could assist in this transformation. As an example, look how angioplasty has changed the treatment of coronary artery disease (CAD). Prior to the 1980s, the treatment for patients with CAD was coronary artery bypass surgery, which required a complex, technically sophisticated surgical team as well as multiple specialists, complicated equipment, days in the hospital and weeks in recovery. The far simpler angioplasty procedure uses a balloon to dilate narrowed arteries resulting in less pain and disability. Some angioplasty procedures can now be performed in stand-alone cardiac care centers which aren't burdened with the tremendous overhead costs of hospitals!

Such innovations make health care more efficient allowing more patients to receive care. When care is complex, expensive and inconvenient, afflictions tend to go untreated. Health care needs more such disruptive innovations. Today's health care leaders might profit from comparing the approaches that S.S. Kresge and F.W. Woolworth took toward disruptive discount retailing in the early 1960s. In *The Innovator's Dilemma*, Christensen notes that Kresge systematically closed 10% of its variety stores every year and funneled all its cash into its disruptive start-up called "K-Mart." Woolworth, on the other hand, maintained all of its traditional stores while building its discount start-up "Woolco." Despite the fact that Woolworth was much larger and had far deeper pockets, Woolco and eventually all of Woolworth's traditional stores, folded! The lessons for today's healthcare institutions:

- a) Don't be afraid to invent the technology that could put you out of business because it could be your salvation and
- b) Stop investing in dying business models.

We can update that old adage "if you don't grow you die" to "if you don't grow **and innovate**, you die!"

### IN THIS ISSUE

**Page 2**

#### New Procurement System

**Page 4**

#### Celiac Disease Testing Addressed

**Page 5**

#### Microbiology News

**Page 6**

#### CHAMP Awards Announced

**Page 7**

#### LA Newsmakers

**Page 8**

#### Calendar of Events

## Ease of Ordering with New E-Requisition System

By Kathleen Shumway, Business Applications Supervisor

Laboratory Alliance is now using a Web-based electronic procurement system to create and process online requisitions, access multiple vendor catalogs and generate purchase orders.

WorkPlace, available from Paramount Technologies, is a new system that interfaces with our current business management system, Microsoft Dynamics GP.

One advantage of the new system is the built-in workflow which electronically routes all requests for purchase of goods and services through an approval process. Each department can customize approval schedules to handle routine purchases and capital and service requests. Documentation, such as vendor quotes and capital expenditure forms, can be attached to the request, ensuring a thorough review. E-mail notifications keep everyone up to date during the review and approval process.

The interface with Microsoft Dynamics GP makes it easy for our employees to select from our current product listing that includes pricing and vendor information. An employee can choose delivery location and other specifics from shopping lists that include

frequently ordered products. Another feature allows requests of new products and services with space allocated for vendor and pricing information. Once a requisition is approved, the system generates a purchase order and purchasing information is uploaded directly into our business management system.

The PunchOut feature makes it easy for employees to order online directly from vendors' Web sites. Once the online transaction is complete, product information is pulled from the vendor Web site into the current requisition. The requisition then proceeds through the normal approval process and, once approved, a purchase request is sent directly to the vendor.

Our procurement process has come a long way since incorporating the new system. We have seen a dramatic reduction in the workload of our material management personnel and Laboratory Alliance has better control of expenditures through the approval workflow. Last, but not least, our employees enjoy timesaving features such as customized shopping lists as well as the ease of use of the system.

## North Medical Center Staff Now Greets Patients on Saturday Mornings



From left, phlebotomists Dianna Calabria and Lynn Nodine and receptionist Jennifer Fiacchi greet patients at the North Medical Center in Liverpool. The center is now open on Saturday mornings and has seen a steady increase in the number of patients taking advantage of the weekend morning to get their labwork done.

Right, Dianna records labwork before sending it to Laboratory Alliance's Operations Center for processing.

North Medical Center is located at 5100 West Taft Road, Suite 2F, in Liverpool. The hours are Monday-Friday from 7 a.m.-5:30 p.m. and Saturday from 8 a.m.-noon.



## Economic Champions

*Laboratory Alliance was again recognized as an Economic Champion by the Greater Syracuse Chamber of Commerce at the October luncheon. Celebrating the award are, front row from left, Annie Kohler, Melissa Frizzi, Malinda Kuney and Jeff Coyne. Back row, from left are Marilyn LeClair, Nancy Sniffen, Karen Carter, Dr. O'Leary, Barbara Guiffrida and Anne Marie Mullin.*



## You're Invited

*Employees and a Guest  
Join us for the  
Laboratory Alliance  
Holiday Party*

*Saturday, January 9  
Holiday Inn  
Electronics Parkway  
6 p.m.-midnight*



*Many Laboratory Alliance employees volunteered and attended as guests at the Francis House "There's No Place Like Home" event held Oct. 14 at the Fairgrounds.*

*Three volunteers working the Silent Auction registration table were, left to right, Marsha Herbst, Chrissy Traphagen and Kim Hayes.*

## Technology Corner

The following new tests and test methods have been added to the menu of tests performed by Laboratory Alliance:

**Anti-Actin Antibody**

**Anti-Gliadin Antibody**

**Anti-Mitochondrial Antibody**

**Anti-tissue Transglutaminase Antibodies,  
IgA and IgG**

**Rapid PCR test for *Clostridium difficile***

**Real Time Gene Amplification for Group B  
Streptococci in Vaginal/Rectal Samples**

Please note that our most current laboratory test menu and other important information can be found on our Web site at [www.laboratoryalliance.com](http://www.laboratoryalliance.com).

## Welcome to Our New Clients

**Northeast Medical Family Physicians –  
Suite 101C  
Fayetteville, New York**

**Brighton Hill Chiropractic  
Syracuse, New York**

**North Medical Family Physicians –  
Suites 1G, 1P, 2T & 2Y  
Liverpool, New York**

**SUNY Cortland Student Health Service  
Cortland, New York**





## Celiac Disease Testing: Against the Grain

By Jayne L. Healey, MD, Assistant Director of Laboratories

Celiac disease, or gluten sensitive enteropathy, is an autoimmune disorder characterized by intestinal inflammation as well as a myriad of extra-intestinal complications. The exact cause of the disease remains unknown but appears to involve a disordered immune response to ingested gluten (a protein found in wheat, rye and barley) in genetically predisposed individuals. The prevalence of celiac disease is estimated at 1 in 133, with more than 3 million Americans affected. Currently, the only effective treatment for celiac disease is a strict gluten-free diet.

Intestinal biopsy remains the gold standard for definitive diagnosis of celiac disease. However, serological testing has been suggested for screening patients with suspected gluten sensitive enteropathy as well as for monitoring dietary compliance. The presence of autoantibodies can be used in conjunction with clinical findings and other laboratory tests to aid in the diagnosis of celiac disease.

Celiac disease is associated with autoantibodies against endomysial tissue (loose connective tissue surrounding smooth muscle fibers in the intestine). Traditionally, these autoantibodies

have been detected by immunofluorescent assays. Later studies revealed tTG to be the main target for anti-endomysial antibodies. Deamidation of gliadin (a component of gluten) by tTG is a prerequisite for subsequent tissue damage. Screening for autoantibodies against deamidated gliadin peptides (DGP) is now considered to be equivalent to anti-tTG antibody testing.

Laboratory Alliance performs in-house testing for the presence of antibodies to both tTG and DGP in human serum. These new assays represent reliable and objective alternatives to traditional immunofluorescent-based assays. Screening is performed by semi-quantitative detection of anti-tTG and anti-DGP IgA and/or IgG antibodies using enzyme immunoassays.

Patients with celiac disease produce both IgA and IgG antibodies to tTG and gliadin. IgA antibodies are more specific markers for disease than IgG antibodies and are recommended for initial screening. Of note, a significant proportion of patients with celiac disease are IgA deficient. An appropriate screening strategy will also incorporate measurement of total serum IgA levels. In cases of IgA deficiency, testing for IgG antibodies should be substituted. IgA antibodies are particularly useful for following disease activity over time and for monitoring adherence to a gluten-free diet.

## Hemoglobin A<sub>1C</sub> Revisited

By Jayne L. Healey, MD, Assistant Director of Laboratories

The hemoglobin A<sub>1C</sub> assay (HbA<sub>1C</sub>) has long been a widely accepted means for monitoring chronic glycemia in diabetics. Newer recommendations by the International Expert Committee now include the use of HbA<sub>1C</sub> measurement for the diagnosis of diabetes as well, with an upper reference limit of 6.5%.

In keeping with the revised guidelines, many clinicians are utilizing inpatient episodes as opportunities for diabetic screening. This is a logical approach, as many patients may visit their primary medical provider infrequently or even become lost to follow-up. Hospital admissions may be used to identify glucose intolerance and to initiate therapy.

Laboratory Alliance of Central New York recognizes the important role of HbA<sub>1C</sub> testing and offers this assay on a daily basis. Although this assay provides valuable information, it does not meet the definition of a critical test. Therefore, HbA<sub>1C</sub> testing is performed on a routine and not a STAT basis. In the case of HbA<sub>1C</sub>, optimal test ordering practices translate into optimal patient care.

Unlike glucose, HbA<sub>1C</sub> levels are not affected by concurrent (inpatient) medical conditions affecting the patient. HbA<sub>1C</sub> levels represent the average blood glucose during the preceding 120 days and will not change appreciably during a short hospital stay. Ordering HbA<sub>1C</sub> testing just prior to discharge can mean unnecessary delays. Often, test orders written during afternoon rounds are not carried out until the following morning routine blood draws. If diabetic screening is desired during an inpatient admission, it is best to order HbA<sub>1C</sub> testing early in the admission process.

Laboratory Alliance will continue to report HbA<sub>1C</sub> levels both as a percentage of total hemoglobin and as estimated average glucose (eAG) in mg/dL.



## MICROBIOLOGY NEWS



### NYSDOH Advisory for Gonococcal Test-of-Cure Samples

By Paul A. Granato, Ph.D., Director of Microbiology

Recently, the New York State Department of Health (NYSDOH) issued an advisory recommending that test of cure (TOC) samples be collected from patients who were diagnosed and treated for gonorrhea. The following represents the recommendation that was issued by the NYSDOH.

**"NYSDOH BSTDC recommends that all patients treated for gonorrhea infection (including those treated with cephalosporins) must have a follow-up physical examination (anogenital and oral) and a test of cure (TOC) from the infected sites identified at the time of the initial diagnosis. A TOC is essential in all cases, even those asymptomatic after treatment. Isolates for treatment failures should be tested for antibiotic resistance."**

TOC is recommended at two weeks post-treatment if using culture or at four weeks post-treatment if using nucleic acid amplification tests (NAAT) regardless if symptoms have resolved or not.

**If the post-treatment NAAT is positive, a culture must be performed to assess for resistance."**

This recommendation has caused confusion among health care providers and the purpose of this notice is to clarify some of these misconceptions.

The two main bacterial causes of sexually transmitted diseases are *Chlamydia trachomatis* and *Neisseria gonorrhoeae*. However, different antibiotic therapies are recommended for the treatment

of each of these infections. Over the years, *C. trachomatis* has remained susceptible to the antibiotics of choice recommended for treatment, whereas *N. gonorrhoeae* has developed resistance, particularly to the fluoroquinolones (ciprofloxacin, ofloxacin and levofloxacin). As such, the NYSDOH recommends TOC cultures for individuals who have been treated for laboratory documented gonococcal infections. TOC cultures are not recommended for patients with chlamydial infections because antibiotic resistance has not been detected in this organism.

Patients can be evaluated for TOC gonococcal infection by performing standard culture two weeks following therapy or by performing NAAT four weeks post-treatment. It is essential to wait four weeks post-treatment when performing TOC using the NAAT method because gonococcal nucleic acids from dead organisms may persist in urogenital secretions for several weeks to produce a "false positive" TOC result. To minimize this possibility, the NYSDOH requires that a gonococcal culture be performed on all patients who had a positive TOC using the NAAT to assess for the presence of antimicrobial resistance in culture positive patients.

It is hoped that this notice will answer some of the physician questions that followed the release of this NYSDOH recommendation. In short, TOC sampling is advocated for patients with gonococcal infection not those with chlamydial disease. For more information, please call (315) 464-7653 or e-mail granatop@upstate.edu.

### Multiplex Real Time PCR Assay for Influenza A, Influenza B and Respiratory Syncytial Virus to Replace Viral Culture for Respiratory Viruses

By Paul A. Granato, Ph.D., Director of Microbiology

In preparation of the upcoming viral respiratory season, our Microbiology Department will soon be offering a multiplex real time PCR (RT-PCR) assay for the simultaneous detection of influenza A, influenza B and respiratory syncytial virus (RSV) in naso-pharyngeal samples that test negative by the rapid antigen assay.

This method will replace the rapid shell-vial assay currently used. This service offers significant advantages over existing technologies by providing a highly sensitive method for detecting three serious, potentially life-threatening, viral respiratory pathogens with a decreased turnaround time as compared to shell-vial culture.

Because antiviral medicines are most effective when administered within the first 48 hours of symptom onset, it is important to have a test that is both sensitive and rapid. Traditional methods, particularly for the detection of RSV and influenza A and influenza B viruses, involve the use of direct specimen tests

and/or virus culture. The direct specimen tests usually involve the use of enzyme immunoassay (EIA) or direct fluorescent antibody (DFA) methods. Such tests provide rapid results but suffer from poor sensitivity. On the other hand, viral culture methods provide improved sensitivity but may require several days before results are available.

Recently, a multiplex RT-PCR test has been FDA approved for the detection of RSV and influenza A and influenza B viruses directly in nasopharyngeal samples. This new test provides for reliable results. Importantly, scientific comparative evaluations of this new assay have shown conclusively that it is 20 to 40% more sensitive for detecting RSV and influenza A/B viruses than conventional methods. As such, the in-house performance of this multiplex RT-PCR assay will provide timely results within 24-48 hours of specimen receipt using one of the most sensitive and reliable methods that is currently available.

## Ron Sweet Named CHAMP

On May 15, Dr. Michael O'Leary, CEO, presented the company's CHAMP award to **Ronald Sweet**. Ron received this employee recognition at Laboratory Alliance's monthly employee luncheon. Ron has been with the company since March 15, 2004. He began his employment as a phlebotomist before moving into the Customer Service Department.

Ron was later promoted to the position of supervisor of Central Receiving at our Operations Center. Ron has excelled in every position that he has held. It is evident from the nominations he received that Ron is an excellent example of a CHAMP. A nominee must consistently demonstrate the following attributes: Caring, Helpful, Accurate, Motivated and Professional.

A co-worker of Ron describes him as "always upbeat, optimistic and positive" and another states, "Ron receives respect from employees and he is equally respectful of them. Ron is always looking for ways to make Central Receiving better."

The next CHAMP Award will be presented at the company's holiday party on the evening of Jan. 9, 2010.



*Anne Marie Mullin (left), Vice President of Business Development and Marketing, presents the CHAMP Award to Aaron Kirch.*

## CHAMP Award Recognizes Aaron Kirch

At Laboratory Alliance's annual clambake on Sept. 12, Dr. Michael O'Leary, CEO, announced the latest recipient of the company's employee recognition award (CHAMP).

The winner of the CHAMP award was **Aaron Kirch**, a medical technologist at our Rapid Response Laboratory located within Crouse Hospital. Aaron was unable to attend the clambake due to the impending birth of his daughter. His manager, Christine Garritano, accepted the award on his behalf. Aaron has been with Laboratory Alliance since May 23, 2002.

Since the inception of this award Aaron has received numerous nominations. Aaron is another excellent example of a CHAMP. Quotes from some of the ballots cast for Aaron describe him as "well liked and extremely efficient," "conscientious," "fair and professional" and "Aaron never loses focus." Aaron has also been recognized by the administration at Crouse Hospital for his intense work on critical cases that have been presented in the Transfusion Department. Without Aaron's extra effort and expertise on those cases patient care could have been adversely affected.

## Dan Ho Demonstrates His Cooking at State Fair and on TV

Employee **Dan Ho**, Information Systems Department, is a well-known local chef. Dan demonstrated wok cooking on Aug. 29 in the Wegman's kitchen at the New York State Fair. A day earlier, Dan joined Carrie Lazarus of WSYR TV 9 for a news segment which featured a demonstration of Bananas Foster using the wok. This segment can be viewed on the WSYR Web site at [www.9wsyr.com](http://www.9wsyr.com):

- Click on VIDEO on the Top-Line menu
- In the "Search..." box, choose, "Search Video"
- In the search prompt, type in "chef danny"

Dan was also featured that same week on a segment on News10Now. A video of that segment and an article titled "Local chef demonstrates cooking in a wok" can be found on the News10Now Web site at [www.news10now.com](http://www.news10now.com). In the top right corner click on "search the News10 archives" and type "chef danny."



## Tossing Balloons at the Company Clambake

Laboratory Alliance employees, their families and friends of the company had a great time at the company clambake held Sept. 12 at the Spinning Wheel Restaurant in North Syracuse. Many took part in games including water balloon toss after eating their fill of clams.



*Jeff Coyne (left), Director of Support Services, joins Ron Sweet as he receives the CHAMP Award from Dr. O'Leary.*

## LA NEWSMAKERS

### New Employees

Please welcome our new employees

#### **At our Operations Center**

**Leon House**, Histotechnician

**Andrew Kimak**, Medical Laboratory Technician

**Amanda Lariviere**, PSC Receptionist

**Christopher Muraca**, Phlebotomist

**Celeste Nelson**, Medical Technologist

**Megan Phillips**, Laboratory Office Assistant

**Kayla Price**, Laboratory Office Assistant

**Tina Pride**, Phlebotomist

**Elizabeth Reed**, PSC Receptionist

#### **At our Rapid Response Laboratory**

##### **at St. Joseph's Hospital**

**Michael Bilbo**, Laboratory Office Assistant

**Janice Bowen**, Laboratory Office Assistant

**Christina Butler**, Laboratory Office Assistant

**Cassondra Renfer**, Receptionist

**Noel Winslow**, Laboratory Office Assistant

#### **At our Rapid Response Laboratory**

##### **at Community General Hospital**

**Kimberly Kemp**, Laboratory Office Assistant

#### **At our Rapid Response Laboratory at Crouse Hospital**

**Jackie Lowe**, Administrative Secretary

### Employee Anniversaries

#### **October, 5 years:**

**Cara Johnson**

**Marjorie Robertson**

**Thomas Ross**

#### **November, 5 years:**

**Kathleen Walker**

#### **November, 10 years:**

**Gerald Dillon**

### Congratulations

Our Microbiology Department was recognized for its involvement in a study for the Centers for Disease Control. Results of the study "Current Practices in Pertussis Diagnostics" were published in a poster that was recently presented at the meeting of the Infectious Disease Society of America.

We were one of several laboratories across the country that participated in the evaluation of pertussis diagnostics.

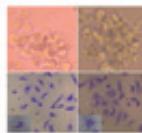


*Dr. O'Leary recently made a visit to our Patient Service Center in Cicero and visited with Phlebotomist Venett Martin. We often receive compliments from patients about Venett.*

*The center is located in the Cicero Professional Building, 6221 Route 31, Suite 108B, in Cicero. Visit the center Monday-Friday from 8:30 a.m.- 5 p.m., closed for lunch 12:15 p.m. - 1 p.m.*

### IN THE NEWS

#### TRANSFUSION



Juliane Breh, Transfusion Services Manager, was cited for work performed on behalf of Laboratory Alliance in an article titled "Multi-site Performance Evaluation of the Ortho Provue with New Software Version Versus the Current System," that appeared in a supplement to the clinical journal *Transfusion*, Vol. 49, No. 3S,

September 2009 Supplement  
Page 148A, Article# SP255.



Director of Microbiology **Paul A. Granato, Ph.D.**, DABMM, FAAM, was interviewed by Syracuse University's student run TV station, CitrusTV. He provided professional perspective on the topic of mold that can contaminate households. To watch the news clip online, go to <http://www.citrustv.net/view-video3.aspx?id=307>

# CALENDAR OF EVENTS

- Wednesday, Oct. 21**      Syracuse Chamber of Commerce Economic Champions Luncheon, Oncenter.  
*Laboratory Alliance was recognized as an Economic Champion*
- Friday, Oct. 23**      "Jeans and Jewels Gala" to benefit Community General Hospital Foundation, Hotel Syracuse.  
*Laboratory Alliance was a corporate sponsor.*
- Thursday, Oct. 29 - Friday, Oct. 30**      Clinical Laboratory Management Association and American Association for Clinical Chemistry Annual Conference and Exhibition, Turning Stone Resort and Casino, Verona, N.Y.  
*Laboratory Alliance was a major corporate sponsor and exhibitor.*
- Friday, Dec. 11**      The Blood Banks Association of New York State Seminar, Laboratory Alliance Corporate Office.  
*Laboratory Alliance is a corporate sponsor.*
- Thursday, Dec. 3**      BizEventz Fast Track 50 Awards Recognition Luncheon. Fifth annual event recognizing 50 of the fastest growing companies, Oncenter. *Laboratory Alliance will be recognized.*
- Saturday, Jan. 9**      Laboratory Alliance Employee Holiday Party, Holiday Inn, Electronics Parkway, 6 p.m.-midnight.

**When your health-care provider orders laboratory tests,  
visit our convenient centers in your neighborhood**

**Four of our 12 centers are north of Syracuse.**

**Baldwinsville Village Commons**  
 15 East Genesee St., 2nd floor  
 857-0329



*Open Saturday mornings*

**Cicero Professional Building**  
 6221 Route 31, Suite 108B  
 752-0077



**North Medical Center**  
 5100 West Taft Road, Suite 2F,  
 Liverpool • 452-2280



*Open Saturday mornings*

**Pulaski**  
 4870 North Jefferson St.  
 298-4743



Free parking, close to building • No appointments necessary  
 Most medical insurance plans accepted  
 Prompt, courteous and in your neighborhood

**For hours, maps and all locations,  
 visit [www.laboratoryalliance.com](http://www.laboratoryalliance.com)**



**LABORATORY ALLIANCE**  
 of Central New York, LLC



## **LABLines**

is a quarterly publication by  
**LABORATORY ALLIANCE of CNY.**  
 Comments, suggestions or inquiries  
 should be directed to  
 Anne Marie Mullin, Vice President of  
 Business Development and Marketing,  
 (315) 461-3036, or by e-mail  
 to [annemariemullin@lacny.com](mailto:annemariemullin@lacny.com).