



## Improved Patient Care and Reduced Hospital Costs Through the Use of Molecular Diagnostics, Part II

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

As reviewed in Part I of this article that appeared in the Summer 2015 issue of *LabLines*, scientific discoveries have impacted the practice of modern medicine by providing improved methods for the diagnosis of an ever-increasing number

of human diseases. Molecular tests are now available to diagnose cancers, metabolic disorders, inherited genetic diseases, as well as many other medical conditions. The specialty of infectious diseases has been favorably impacted by the availability of these technologic innovations as many traditional, time-dependent cultural methods have been replaced by rapid and more sensitive molecular assays. Gene amplification assays, such as the polymerase chain reaction (PCR), have proven to be more sensitive than conventional cultural methods while also providing a much shorter time to final result. In some cases, these molecular technologies have allowed for the detection of microbial pathogens in clinical specimens that could not be diagnosed using conventional cultural methods.

In the summer issue of *LabLines*, some of the molecular technologies that are routinely used in the Laboratory Alliance's Microbiology Department were briefly reviewed. (The newsletter is posted online at [laboratoryalliance.com/about-us/lablines-newsletter](http://laboratoryalliance.com/about-us/lablines-newsletter).) This article continues to highlight how these technologies have favorably impacted patient care and antibiotic stewardship programs while significantly reducing hospital costs. In addition, the use of these technologies has impacted the practice of infection control by allowing for the rapid detection and immediate isolation of patients with hospital-acquired infections, thereby reducing the incidence of nosocomial disease transmission.

### Gastroenteritis

#### Bacterial and Viral Etiologies

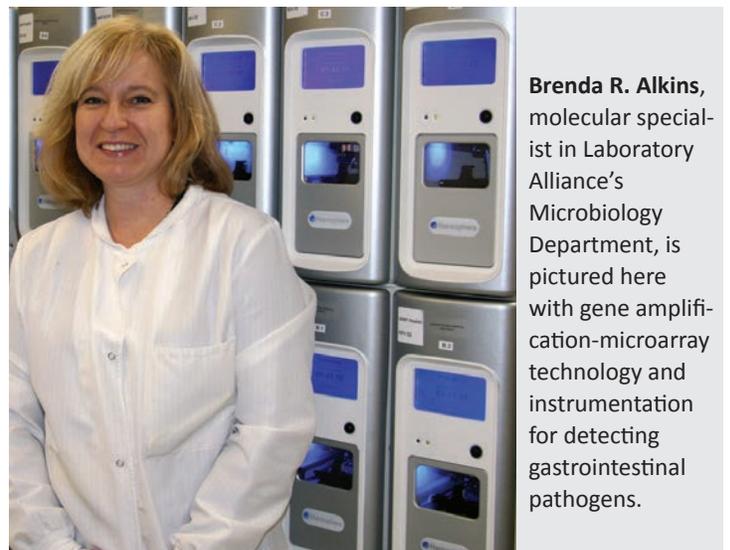
Diarrhea is a common infectious disease most frequently caused by a virus or a bacterium and is second in incidence only to respiratory infections. Conventional methods test for only a few bacteria that cause disease and involve the use of labor-intensive, time-consuming cultural and/or enzyme immunoassay (EIA) methods that often require two to four days before a final result is available. Laboratory

Alliance has replaced these cumbersome and somewhat insensitive methods with a gene amplification-microarray assay that tests for an extensive panel of the bacteria (*Campylobacter*, *Salmonella*, *Shigella*, *Vibrio*, *Yersinia* and Shiga-toxin 1/2 producing *Escherichia coli*) and viruses (Norovirus and Rotavirus) that are common causes of diarrheal disease. The availability of this assay provides for improved sensitivity and the detection of a greater number of infectious agents that are responsible for disease with final results available in less than one day as opposed to two to five days using conventional methods.

#### Antibiotic-Associated Diarrhea

Antibiotic-associated diarrhea, caused by *Clostridium difficile*, is the most common cause of hospital-acquired diarrhea that usually results from a hospitalized patient receiving certain broad-spectrum antibiotics that disrupt the normal microbial ecology in the bowel. Moreover, *C. difficile* is being increasingly recognized as a cause of community-acquired diarrhea as the use of these broad-spectrum antibiotics become more commonplace in non-hospitalized patients. Initially, the laboratory diagnosis of *C. difficile* infection

*Continued on page 4*



**Brenda R. Alkins**, molecular specialist in Laboratory Alliance's Microbiology Department, is pictured here with gene amplification-microarray technology and instrumentation for detecting gastrointestinal pathogens.

### IN THIS ISSUE

Page 2 Dr. O'Leary Retires as CEO, Continues as Medical Director Through Spring 2016

Page 3 Anne Marie Mullin Assumes CEO Responsibilities

Page 6

Employees In the News

Page 7

LA Newsmakers

Page 8

Laboratory Medicine Is a Smart Career Choice

## Dr. O'Leary to Retire as CEO in December; Will Serve as Medical Director until Spring



**Michael R. O'Leary, M.D.**, has served as the company's medical director of our Operations Center laboratory and a liaison between the board of managers, medical directors and management since the formation of Laboratory Alliance in 1998.

He will continue in this capacity through the spring of 2016, but will retire as CEO at the end of this month.

At this time, we reflect on Dr. O'Leary's outstanding leadership and vision and his tireless devotion as chief executive officer, a role he graciously assumed in 2008 following the untimely death of then CEO Frank Kearns in December 2007.

Dr. O'Leary leads with integrity, kindness and common sense and is both a friend and mentor to those he works with at Laboratory Alliance.



Photos, top row, left: Dr. O'Leary recognizes Courier Dominick Frijo with a CHAMP award in April 2008. Top right: Dr. O'Leary enjoyed the feel of an employee's motorcycle on a sunny September day in 2005. Middle row, from left: Dr. O'Leary at his microscope in 2000; Dr. O'Leary is named an honorary courier by Anthony Mastrobattisto at the 2011 Company Clambake; and Dr. O'Leary receiving an award for service from the Onondaga County Medical Society in November 2012.

Left, friends enjoying the 2005 Company Clambake, including, from left, Harry Sommer and Dr. Joby Swerdlow, Drs. Michael and Colleen O'Leary, Pat and former CEO Frank Kearns, who died in 2007, and Lynn Trickey.

## Anne Marie Mullin Named Chief Executive Officer



The Board of Managers of Laboratory Alliance appointed Anne Marie Mullin to the position of chief executive officer of the organization, effective Jan. 1, 2016.

Ms. Mullin will replace Dr. O'Leary, who has served as a liaison between the board of managers, medical directors and management since the formation of Laboratory Alliance in 1998.

Ms. Mullin has also worked at Laboratory Alliance since its founding in 1998. In her current role as senior vice president, she oversees the team of professionals responsible for daily operations of the company's facilities, including its Corporate Offices, Operations Center, three Rapid Response Laboratories, and 11 Patient Service Centers. In addition to her current role, Ms. Mullin has served as the vice president of business development and marketing, director of marketing and director of outreach for Laboratory Alliance, as well as other healthcare-related positions.

"We feel confident that the organization will be in good hands with Anne Marie Mullin," said Ted Pasinski, chair of the Laboratory Alliance Board of Managers. "Her background in medical technology and transfusion medicine, combined with her leadership and healthcare management skills, provide the right balance required to lead the organization forward."

Fifty-one of our managers and employees from five sites attended the annual management meeting held at the Corporate Offices in September. The morning included a viewing of the webinar "Active Shooter in Your Workplace: Tactical Planning and Response," produced by the Association of Contingency Planners (ACP) Webinar Series.



## Reported Cases of STDs On the Rise in the U.S.

Reported cases of three nationally notifiable STDs – chlamydia, gonorrhea, and syphilis – have increased for the first time since 2006, according to data published by the Centers for Disease Control and Prevention (CDC) in the 2014 STD Surveillance Report, detailed in a Nov. 17 press release on the CDC website at [www.cdc.gov](http://www.cdc.gov).

The approximately 1.4 million reported cases of chlamydia is up 2.8 percent since 2013. Rates of primary and secondary (P&S) syphilis – the most infectious stages of syphilis – and gonorrhea have both increased since 2013, by 15.1 percent and 5.1 percent, respectively.

STDs continue to affect young people – particularly women – most severely, but increasing rates among men contributed to the overall increases in 2014 across all three diseases.

The 2014 data show that youth are still at the highest risk of acquiring an STD, especially chlamydia and gonorrhea. Despite being a relatively small portion of the sexually active population, young people between the ages of 15 and 24 accounted for the highest rates of chlamydia and gonorrhea in 2014 and almost two-thirds of all reported cases. Despite recommendations from the CDC and the United States Preventive Services Task Force for annual chlamydia and gonorrhea screening for sexually active women younger than 25, experts believe far too many young people are not tested, and therefore don't know they are infected.

"The consequences of STDs are especially severe for young people," said Gail Bolan, M.D., director of CDC's Division of STD Prevention. "Because chlamydia and gonorrhea often have no symptoms, many infections go undiagnosed and this can lead to lifelong repercussions for a woman's reproductive health, including pelvic inflammatory disease and infertility."

To reduce STDs, Americans must take steps to protect themselves. For sexually active individuals, testing and treatment according to CDC's recommendations, using condoms consistently and correctly, and limiting the number of sex partners are all effective strategies for reducing the risk of infection and consequences to health.

For more information on the new analysis and CDC's HIV prevention efforts, visit [www.cdc.gov/nchhstp/newsroom](http://www.cdc.gov/nchhstp/newsroom).



**Healthcare Providers...make your job easier!**

Access our Directory of Services at [LaboratoryAlliance.com](http://LaboratoryAlliance.com) for information you seek, quickly and with ease.

Visit our website and select the **Healthcare Provider tab**

**New!** A list of test abbreviations and acronyms can now be found under Healthcare Providers/ Technical Services for your reference. The list is a combination of commonly used abbreviations and "short cut" terms.

## Improved Patient Care and Reduced Hospital Costs, *continued*

*continued from page 1*

was made by using a very cumbersome, labor-intensive cytotoxin neutralization assay that required three to five days to generate a final result. Subsequently, an EIA test was developed that provided results in one hour, but like other EIA tests, it suffered from poor sensitivities of 60 to 70%. For several years, Laboratory Alliance has been performing a PCR assay that can detect not only the wild-type strain of *C. difficile* but also the hypervirulent mutant strain that causes more serious disease. The PCR test has a sensitivity of greater than 95%. The routine availability of this *C. difficile* PCR assay has had significant impact on hospital infection control practices, thereby reducing the incidence of disease transmission to other susceptible hospitalized patients. Early diagnosis has also resulted in improved patient outcomes, reduced patient stays and associated hospital cost savings of \$5,000 per patient case.

### Surveillance Screens

#### MRSA

MRSA or methicillin-resistant *Staphylococcus aureus* is an important cause of hospital- and community-acquired infection. In addition, many individuals may have skin colonization with MRSA that puts them at risk for developing subsequent MRSA infections. As such, MRSA screening tests are often performed to identify patients who might be colonized with MRSA. Such patients include, but are not limited to, premature babies who have extended hospital stays in the Neonatal Intensive Care Unit or patients who are scheduled to undergo cardiac surgery or orthopedic implants (hip, knee, shoulder, etc). Hospitalized patients and babies found colonized with MRSA can be placed in isolation to minimize MRSA transmission to other susceptible patients while undergoing treatment. For outpatients scheduled for cardiac or orthotic implant surgery, MRSA-colonized patients can receive decolonization antibiotic therapy prior to surgery to minimize the risk of developing a post-surgical MRSA infection.

Cultural methods are available for identifying patients who are colonized with MRSA, but once again, culture is a time-dependent method requiring 24 to 48 hours before a final result is available. A PCR assay is performed by Laboratory Alliance to identify patients who are colonized with MRSA and the test can be completed within one to two hours of specimen receipt. As with *C. difficile*, the availability of such rapid results has impact on hospital infection control practices. Patients found to be colonized with MRSA can be promptly placed in isolation thereby reducing the risk of disease transmission to others. For individuals scheduled for cardiac or implant surgery, decolonization therapy of MRSA colonized patients has resulted in a ten-fold reduction in post-surgical MRSA infections. The cost savings associated with this reduction in infection rate and the elimination of the associated patient suffering are incalculable. In addition, studies have shown that the use of the PCR screening assay reduced the total number of patient isolation days by over 44%.

### Sexually Transmitted Disease

#### Chlamydia and Gonorrhea

Genital infections that produce an exudative discharge (pus) are frequently caused by *Chlamydia trachomatis* and/or *Neisseria gonorrhoeae*. The cultural diagnosis of Chlamydia infection requires three to five days and has a sensitivity of only 70%, while the cultural diagnosis of gonorrhea may require two to four days and has a



Senior Medical Technologist **Cristina Lenartowicz** is using the Panther instrument, a fully automated and integrated molecular testing system that detects strains of human papillomavirus (HPV) associated with cervical cancer and precancerous lesions. The Panther has demonstrated significantly improved specificity with no compromise in disease detection.

sensitivity of 90%. Most clinical microbiology laboratories, including Laboratory Alliance, use a gene amplification assay for the improved and more rapid detection of the important pathogens in genital specimens. The use of molecular assays allows for the availability of final results within 24 hours with sensitivities of greater than 95% for both organisms.

#### Human Papilloma Virus

Human papilloma virus (HPV) is the cause of cervical cancer and no cultural methods are available for its detection. Formerly, the Pap smear was the mainstay for diagnosis in which the presence of atypical cervical cells would be indicative or suggestive of cervical cancer. Unfortunately, the Pap smear has a highly variable sensitivity. Laboratory Alliance uses a reliable molecular-based assay to detect the presence of HPV in cervical specimens. Now, when atypical or suspicious cervical cells are seen on Pap smear examination, the specimen is tested specifically for the presence of HPV, indicating whether the patient has, or is at risk for, developing HPV. Test results are available within 24 to 48 hours of specimen receipt.

#### Vaginitis

Vaginitis, an inflammation of the vagina resulting in discomfort and/or a discharge, may have an infectious or non-infectious etiology. *Trichomonas vaginalis*, a protozoan, *Gardnerella vaginalis*, a bacterium, and *Candida albicans*, a yeast, represent the three most common infectious causes of vaginitis. Aside from being time-consuming (two to seven days) and labor-intensive, the cultural diagnosis for these organisms can sometimes be misleading and result in misdiagnosis because *Gardnerella* and *Candida* may reside normally in the vagina in low numbers. Microscopic examination of

*continued on page 5*

## Improved Patient Care and Reduced Hospital Costs, *continued*

*continued from page 4*

the vaginal discharge can also be used for diagnosis, but microscopy suffers by having poor sensitivity. Laboratory Alliance uses a nucleic acid probe method for the rapid simultaneous detection of these three pathogens in vaginal specimens. The DNA probe test is completed within one hour and its use is preferable over culture and microscopy. Recently, Laboratory Alliance introduced the availability of a gene amplification assay that specifically screens for *T. vaginalis*. Like all gene amplification assays, this new *T. vaginalis* test has markedly improved sensitivity over any of the other alternative methods available.

### Herpes and Zoster

Herpes is a viral infection caused by herpes simplex I (HSV-I) or herpes simplex virus II (HSV-II). HSV-I and HSV-II can cause a wide variety of cutaneous and mucocutaneous infections often involving the genitalia. Zoster is a reactivation disease in a patient who previously had chicken pox and is caused by Varicella Zoster Virus (VZV). The cultural diagnosis of HSV-I/II infection is usually completed within 24 to 72 hours and has a high sensitivity, while the cultural diagnosis for VZV infection may take several weeks and has a poor sensitivity. Often, it is difficult to distinguish clinical HSV infection from Zoster. Laboratory Alliance offers a multiplex PCR assay that simultaneously screens for HSV-I, HSV-II, and VZV in clinical specimens. This test provides results within 24 hours with a sensitivity of greater than 98%. Since Laboratory Alliance has been using this test, approximately 5% of all genital specimens submitted for analysis and clinically thought to be caused by HSV were, in fact, caused by VZV. The importance of this finding on patient care, management, and counseling are obvious.

### Proteomics

Traditional methods used for the identification of bacteria recovered from clinical specimens involve the performance of biochemical tests. Conventional biochemical test methods may require one to two days before a final identification can be made. If available, the use of automated systems can reduce this time to five to six hours which is still a time-dependent process.

Recently, matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS) has been developed

for the rapid identification of bacteria and yeast. This technology uses a laser to vaporize a bacterium that has been smeared onto a slide grid or matrix. The laser ionized protein particles are vaporized and travel over a defined distance where they are desorbed onto a capture grid. The speed at which the proteins travel is dependent on their molecular weight and ionic charge. The time of flight for each ionized protein particle is measured by a mass spectrometer to create a spectral pattern that is characteristic to the organism. Using an imaging system, the spectral pattern is then compared to a computer library of over 2,200 known bacteria and yeast to generate the identification of the organism. The use of MALDI-TOF MS for the identification of bacteria and yeast based upon the protein profiles is called proteomics. Each MALDI-TOF MS identification takes 10 to 15 seconds to complete compared to hours or several days using conventional methods.

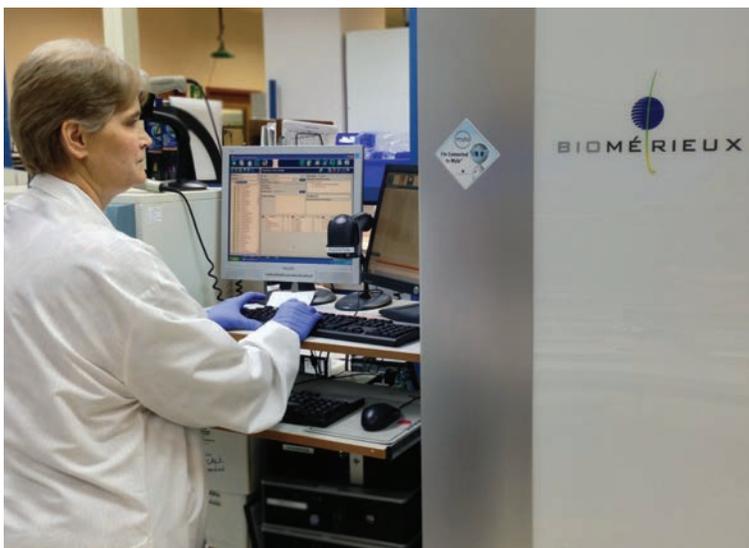
Laboratory Alliance has been using the MALDI-TOF MS for the routine identification of bacteria and yeast recovered from clinical specimens since August of 2014. The use of this technology has resulted in a much shorter time to identify a bacterium or yeast and has improved laboratory workflow. In addition, the use of this technology has resulted in the identification of microorganisms that could not be previously identified using conventional methods. In addition to these benefits, one published study has shown that the use of MALDI-TOF MS has decreased the mean length of hospital patient stay from 11.9 to 9.3 days and decreased hospital cost per patient from \$45,709 to \$26,162.

### Summary

Once restricted for use to research and reference laboratories, the availability of molecular methods for the diagnosis of infectious diseases has become more commonplace in many clinical microbiology laboratories. Laboratory Alliance has adopted the use of many of these molecular technologies as part of its routine menu of laboratory test services, thereby replacing many of its outmoded and antiquated conventional cultural methods. The 24/7 availability of many of these diagnostic molecular services has had a decidedly favorable impact on patient care and patient outcomes. The rapid availability of such reliable results guides physician choices in appropriate antibiotic that have a beneficial impact on antibiotic stewardship programs resulting in significant hospital cost savings.

The molecular assays that have been reviewed in this article represent some of today's "cutting edge" technology. However, new assays involving the use of whole genome sequencing, next generation sequencing (NGS), SmartParticles, and many others are continually being developed that offer improvements over our existing methods. These assays are constantly being evaluated for use in the Microbiology Department. The mission of Laboratory Alliance is to provide the most reliable test results in the shortest period of time so that the best interests of patient care can be served. Molecular diagnostics has certainly helped to achieve that goal.

Medical Technologist **Katrina Zeglin**, who works in the Microbiology Department at our Operations Center, is preparing a bacterial isolate for the MALDI-TOF MS identification. As explained above, matrix-assisted laser desorption/ionization time-of-flight mass spectrometry (MALDI-TOF MS) has been developed for the rapid identification of bacteria and yeast.



## In The News

**Medical Lab Management** magazine featured Laboratory Alliance's Lean projects in an article in its September issue titled "Implementing a Lean Laboratory." It was written by our Continuous Process Improvement Manager **Lonnie D. Stallcup, Jr.** Lonnie's article details the process that began in 2010 and includes photos and blueprint drawings of the laboratories at various stages of transition. He was invited to submit the article following a presentation he made at the Clinical Laboratory Management Association's (CLMA) KnowledgeLab conference in March. The article is posted on our website on the Announcements page at [laboratoryalliance.com/announcements](http://laboratoryalliance.com/announcements).

Director of Microbiology **Paul A. Granato, Ph.D.** presented two abstracts at the International Conference on Antimicrobial Agents and Chemotherapy, held Sept. 17-21 in San Diego. "Multicenter Evaluation of the Solana® Group A Streptococcus Assay: Comparison with Culture" and "Multicenter Evaluation of the Amplivue® Bordetella Assay: Comparison with Polymerase Chain Reaction" were co-authored by Dr. Granato and T. S. Uphoff, B. W. Buchan, N. Ledebouer, J. A. Daly and T. N. Marti.



Senior Executive Assistant **Joan Rusin** was recognized by the Association for Healthcare Administrative Professionals for participating in a survey that will be used to help plan education offerings in 2016 and beyond. Joan, a longtime member of the association, was one of two winners of a gift card drawing and was named in the fall 2015 newsletter, *Notations*.



Central New York's healthcare newspaper, *In Good Health*, published a story we recently sent them in its December issue. "Shortage of Skilled Workers Impacts Local Lab" runs on page 19, and includes a front-page promotional message. The article's subtitle reads: "Laboratory Alliance of CNY wants to encourage students to study medical technology, offers help with tuition, job placement." The full story and a copy of an ad that also ran in the issue is reprinted on page 8 of this issue of *LabLines*.

It's all part of a campaign to raise awareness of laboratory career opportunities with the goal of resolving the shortage of medical technicians and technologists available for hire. For more than a decade, Laboratory Alliance has been directly impacted by the scarcity of qualified New York state-licensed medical technologists and medical technicians. This trend is expected to continue with the increasing aging population and growing need for laboratory tests. Laboratory Alliance's campaign includes print advertising, radio underwriting, notices on our website and on hospital career pages, social media posts, posters, publicity and brochures targeting students and their families.

**Todd Terpening** of Fulton has worked Laboratory Alliance's Rapid Response Laboratory at St. Joseph's Hospital Health Center one weekend a month for 16 years. During this time, the medical technologist earned his teaching degree, taught sixth grade for 13 years and was recently named principal of Volney Elementary in the Fulton City School District. Todd was featured in an article in the *Valley News* in which he said he doesn't plan to give up his one-weekend-a-month job at the hospital. Todd said that the two fields have a lot of similarities — both have standards and practices that are constantly changing and evolving.



Pictured is Volney Elementary Principal Todd Terpening with students at a recent "Meet the Principal" event.  
*Nicole Shue photo*

## Thanks, Laboratory Alliance!



A Family When You Need It Most.

Laboratory Alliance employees raised over \$1,000 to benefit Francis House through raffle ticket sales and attendance at its 'No Place Like Home' annual fundraiser, reports Human Resources Assistant Marsha Herbst. Best of all, our recently retired

bookkeeper **Mary Meaker** won the two Jet Blue airline tickets, making this the second time one of our employees has won a raffle.



Laboratory Alliance supported both the U.S. Marine Corps Toys for Tots campaign and the Salvation Army Food

Drive during the holiday season. Employees and visitors to seven of our locations put unwrapped new toys and non-perishable food items into collection boxes that our couriers delivered in time to make the holidays special for our community's less fortunate families.

## LA Newsmakers

### Employee Anniversaries

**October, 5 Years**  
 Matthew Messenger  
 Gigi Sgroi  
 Nikki Zingaro

**October, 15 Years**  
 Robert Cavelli  
 Neil Wescott

**December, 5 Years**  
 Daniel Tiff

**December, 10 Years**  
 Sebby Abbate  
 Linda Ball  
 Linda Hart

**October, 10 Years**  
 Marsha Herbst  
 Daniel Ho  
 Linda Montgomery

**November, 5 Years**  
 Louis Manzietti Jr.  
 Jill Nicholas  
 Katie Raimondo

### New Employees

Please welcome our new employees

#### At our Corporate Office

Cynthia Joyner-Worthem - Accounts Payable

#### At our Operations Center

Andrea Curtis - Histotechnician  
 Alexis Dufore - Laboratory Office Assistant  
 George Gerges - Histotechnician  
 Laura Hanford - Histology Technical Assistant  
 Kenneth Jackson - Courier  
 Robert Kelly - Courier  
 Alan Mandarino - Phlebotomist  
 Bradley Mason - Materials Handler  
 Miranda Masterpol - Technical Processing Assistant  
 John McCoy - Histotechnician  
 Steven Prell - Courier  
 Corey Rivet - Technical Assistant  
 Richard Salisbury - Courier  
 Leslie Shelanskey - Laboratory Office Assistant  
 Nancy Tucci - Medical Technologist

#### At our Rapid Response Laboratory at St. Joseph's Hospital

Jessica Hogan - Laboratory Office Assistant

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

Vanessa Coates - Administrative Secretary

#### At our Rapid Response Laboratory at Upstate University Hospital Community Campus

Barbara Hannay - Medical Technologist

### Congratulations



Longtime employee **Mary Meaker** retired in October, after 17 years in Accounts Payable. Always cheerful and willing to help out, Mary was loved by her co-workers and praised by our vendors for her strong work ethic and kindness. Mary is enjoying more time with her husband, children and grandchildren.

We welcome **Cynthia Joyner-Worthem** to Accounts Payable at the Corporate Offices.

### Clambake 2015



Some of our employees participated in a group photo at the company's Clambake 2015, held on Sept. 12 at the Spinning Wheel Restaurant in North Syracuse. Employees and their guests enjoyed great food, conversation and music by DJs R Us.

## Community Connections

### Calendar of Events

**Friday, Nov. 6**

**BBANYS Annual Fall Seminar** at Laboratory Alliance's Corporate Office, Syracuse. *Laboratory Alliance was the host and a sponsor.*

**Thursday, Nov. 12 - Friday, Nov. 13**

**Clinical Laboratory Management Association and American Association for Clinical Chemistry Annual Conference and Exhibition**, Turning Stone Resort, Oneida. *Laboratory Alliance was a sponsor and exhibitor.*

**Friday, Nov. 20**

**Upstate Gala** at the Nicholas J. Pirro Convention Center, Syracuse. *Laboratory Alliance was a corporate sponsor.*



The Central New York Business Journal named Laboratory Alliance to the list of "Top 100 Private, For-Profit Companies in CNY" in August 2015.

**Medical Laboratory Technicians  
Medical Laboratory Technologists  
Cytotechnologists  
Histotechnicians**

**WE'RE HIRING  
LABORATORY  
PROFESSIONALS**



A career in laboratory medicine is a smart choice for students who enjoy science and want a strong job market upon graduation.

Talk with us about careers in laboratory medicine and visit our website to learn more at [laboratoryalliance.com/careers](http://laboratoryalliance.com/careers)

## National Shortage of Skilled Workers Impacts Local Laboratories

A career in laboratory medicine is a smart choice for students who enjoy science and want a strong job market upon graduation. For years, the jobs have outpaced the number of medical technologist and technician graduates, resulting in an alarming national shortage within the clinical and anatomic pathology workforce.

The crisis has been unfolding for several years at Laboratory Alliance, Central New York's largest clinical laboratory, and the key to resolving the shortage may be through greater awareness of laboratory career opportunities.

Laboratory testing has an estimated impact on more than 70 percent of medical decisions and is vital to the diagnosis and treatment of illness and disease. The information that a medical technologist – also known as a clinical laboratory scientist – gives to the doctor influences the medical treatment a patient will receive. Laboratory testing is projected to grow as baby boomers retire and their health needs increase.

Laboratory Alliance is telling anyone contemplating a two- or four-year degree

in science to choose medical technology and there will be a career waiting upon graduation.

For more than a decade, the company has paid tuition assistance, sign-on bonuses and incentive program fees to educate and entice those interested in a career in medical technology.

"We always have positions available for qualified New York state-licensed medical technologists and medical

technicians," Vice President of Human Resources Barbara Guiffrida said.

Laboratory Alliance employs more than 400 people and operates four laboratories, including a main lab in Liverpool, and rapid response laboratories in Crouse and St. Joseph's hospitals and Upstate University Hospital Community Campus. Also, it provides laboratory services for regional hospitals and non-hospital clients including long-term care facilities and physician offices in central and upstate New York.

The clinical laboratory worker is an important player in the health care industry, but because they work behind the scenes and not directly with the patients, it's not a top-of-mind career choice.

**"We need to spread the word that laboratory careers provide a good wage, are stimulating, and they make a positive difference in the lives of others."**

**Vice President of Human Resources Barbara Guiffrida**

Employment of medical laboratory technologists and technicians is projected to grow 22 percent from 2012 to 2022, much faster than the average for all occupations. An increase in the aging population will lead to a greater need to diagnose medical conditions through laboratory procedures.

That hits home for Laboratory Alliance. The company recruits technologists, technicians, managers, information technology and customer service representatives. Most Laboratory Alliance employees, including the CEO, got his or her start working in the laboratory. The laboratory offers opportunity, room for growth and a wide range of career paths within the company. Available positions posted on the company's website include medical technologist, medical laboratory technician and histotechnician.

For more information, visit our Careers page on our website at [laboratoryalliance.com/careers](http://laboratoryalliance.com/careers).

**LAB**lines

Comments, suggestions or inquiries should be directed to  
**Anne Marie Mullin**  
Senior Vice President  
315-461-3036, or by email to  
[annemariemullin@lacny.com](mailto:annemariemullin@lacny.com)