



## Hey, Daddy, What's Polio and the Emergence Of a New Polio-like Illness: AFM

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

### Polio

#### Introduction

Poliomyelitis, simply known as polio, is a viral infection that, in its most severe form, can cause paralysis and even death. In 1952, almost 58,000 polio cases were documented in the United States with far greater numbers recorded worldwide.

In the early 1950's, Dr. Jonas Salk, one of the foremost polio researchers, developed a vaccine whose effectiveness needed to be established by performing a large, controlled, scientific study in children. As a youngster in Mrs. Blakslee's third grade class at the now closed Salt City Grammar School located in Liverpool, N.Y., I recall being marched down to the auditorium with my classmates to receive a "shot." Once there, all students in the school were divided into two groups, assembled into two long lines, and were injected in the arm with something. I now know that one group was injected with dead polioviruses while the other group received a placebo injection containing no virus. I also now know that I was one of over 600,000 students nationwide that participated in a clinical trial sponsored by the March of Dimes to establish the efficacy of the injectable polio vaccine that Salk developed, now known as the Salk vaccine.

In 1955, the Salk vaccine was declared "a safe, effective, and potent vaccine" for preventing polio, resulting in its immediate approval for use by the federal government. This approval resulted in the subsequent widespread vaccination of children throughout the U.S. By 1961, the incidence of polio decreased 97% and today it has been virtually eliminated in the U.S.

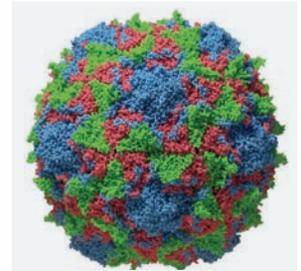
#### "Hey, Daddy"

In 2005, at a celebration marking the 50th anniversary of the licensed use of the Salk vaccine, Salk was asked how he wanted to be remembered. Dr. Salk simply and modestly responded, "I want to be there when a child in the next generation asks his father, 'Hey, Daddy, what's polio?'" In February of 2018, a physician mother announced to her young daughter that she had been selected to travel to India to administer the polio vaccine to some of the children in that country. The daughter was very excited for her mother and responded, "Mom, that's wonderful. I'm so proud of you. But, what's polio?" No doubt, that innocent question posed by

the young child fulfilled Dr. Salk's wish and would make him very proud and happy today.

#### Polioviruses

Polioviruses, the causative agent of polio, are human enteroviruses and are members of the *Picornaviridae* family. There are three serotypes of poliovirus: poliovirus type 1 (PV1), poliovirus type 2 (PV2), and poliovirus type 3 (PV3). Each virus is capable of causing polio. The polioviruses contain a small RNA genome and a protein capsid that encloses the RNA. Other closely related viruses within the *Picornaviridae* family include the coxsackieviruses, echoviruses, rhinoviruses, and well over 100 strains of enteroviruses, one of which will be discussed in greater detail later.



The polioviruses are extremely small — 30 nanometers in diameter — and have an icosahedral shape resembling a soccer ball.

#### Epidemiology

Polio mainly affects children but adults are stricken with the disease as well. In general, 1 in 200 infections lead to irreversible paralysis. Among those paralyzed, 5 to 10% may die if their diaphragm (breathing muscle) becomes paralyzed. Worldwide, death rates due to polio have decreased from an estimated 350,000 in 1988 to a reported 22 cases in 2017. As a result of the global effort to eradicate polio, more than 16 million people have been saved from paralysis.

With the development and widespread use of effective polio vaccines, polio has been eliminated as a disease worldwide with the exception of two countries: Afghanistan and Pakistan. Eliminating polio from these two countries has proven difficult. Conflict, political divide and instability, hard-to-reach populations, and poor infrastructures pose significant challenges in eradicating the disease. Despite these obstacles, efforts continue in hopes of eliminating polio in these two countries.

#### Transmission

Polioviruses only infect humans. The virus lives in an infected person's throat and intestines where the virus is shed into the environment in feces and, less frequently, in respiratory secretions.

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## Two-Day Laboratory Conference Featured Nobel Laureate Speaker

By Rita Romano, MA, MT(ASCP), Director, Operations Center and President-elect, CNY Chapter of the Clinical Laboratory Management Association

Clinical laboratory scientists rely on their microscopes for healthcare diagnoses every day, but it's only since the late 1990s that researchers can carry out detailed observations of the dangerous Zika virus, for example, and other proteins at atomic resolution.

Joachim Frank, Ph.D., a biophysicist at New York City's Columbia University, made a groundbreaking contribution to this imaging revolution for which he was recognized with the 2017 Nobel Prize in Chemistry. Dr. Frank spoke about his discoveries with upstate New York laboratory professionals on Nov. 1.

"Single-Particle Cryogenic Electron Microscopy of Biological Molecules, and Its Potential for Medicine," was the keynote address at the scientific conference hosted by the Central New York chapter of the Clinical Laboratory Management Association (CNY CLMA) and the American Association for Clinical Chemistry (AACC) of Upstate New York. The two-day conference was held at the Turning Stone Event Center in Verona, N.Y. More than 220 professionals and 65 exhibiting vendors participated, including Laboratory Alliance.

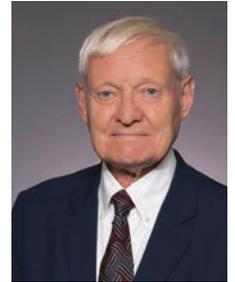
Dr. Frank previously served as a senior research scientist at the Wadsworth Center in Albany, N.Y., the public health laboratory of

the New York State Department of Health. It is here that he started working on single-particle approaches in electron microscopy.

The 2017 Nobel Prize in Chemistry was shared by three scientists. In 1990, British scientist Richard Henderson based his work on Dr. Frank's discoveries to become the first person to observe a protein at atomic resolution using an electron microscope. In 1991, Dr. Frank used the vitrification method developed by Swiss biophysicist Jacques Dubochet to achieve an additional significant increase in resolution: vitrification freezes the water in proteins in such a way that it behaves more like glass than ice – and prevents the formation of the ice crystals that would otherwise interfere with observations.

### About the Conference Sponsors

AACC is a global scientific and medical professional organization dedicated to clinical laboratory science and its application to healthcare. CNY CLMA is a local chapter of CLMA, a national professional organization that brings together clinical laboratory professionals from laboratories of all sizes. Clinical laboratory managers and leaders, clinical technicians, consultants, marketers and military staff can connect and share their collective knowledge.



Joachim Frank, Ph.D.

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Some polio patients may develop widespread degeneration of nerve axons resulting in muscle atrophy and flaccid paralysis.

Susceptible individuals most commonly acquire polio following the ingestion of fecal-contaminated food and/or water containing the virus. Though occurring less commonly, the disease can be transmitted following exposure to respiratory droplets from a sneeze or cough from a polio-infected individual. Maximum excretion of the poliovirus in feces occurs 2 to 3 days prior and several weeks after the appearance of symptoms.

### Pathogenesis

Following exposure, usually by the fecal-oral route, the poliovirus infects the tonsils, lymph nodes of the neck, and subsequently the lymphatic tissues in the small intestine. Most individuals infected with the poliovirus develop no or very mild flu-like symptoms. However, in the more severe paralytic form of the disease, the virus causes extensive damage to

the anterior horn cells of the spinal cord causing limb paralysis. The virus may also spread to other nerve centers including the brain

stem which may be fatal. Widespread degeneration of nerve axons occurs resulting in muscle atrophy and flaccid paralysis in patients. Death usually occurs in extreme cases most often due to respiratory paralysis.

### Clinical Presentation

The majority of susceptible individuals (around 95%) exposed to the poliovirus will never develop any symptoms of infection. Despite this, asymptomatic individuals still shed the virus in their feces and, as such, can serve as a reservoir of disease transmission to other susceptible people.

Polio that develops as symptomatic disease can be classified into three types of infection: abortive polio, non-paralytic polio, and paralytic polio. Abortive polio presents as a mild, viral or flu-like illness with symptoms of fever, fatigue, headache, sore throat, nausea, and diarrhea. After several days, the patients return to good health without any complications. In non-paralytic polio, individuals typically experience the same symptoms of abortive polio, but with additional neurological symptoms, such as vomiting, sensitivity to light, limb stiffness, and muscle tenderness with spasms. Paralytic polio is the most severe form of disease and occurs in less than 1% of infected individuals. Paralytic polio begins initially with symptoms of abortive polio followed by loss of superficial reflexes and the development of muscle pain or spasms. Paralysis, usually asymmetric, soon follows. In most cases of paralytic polio, the patients recover completely. However, some individuals remain paralyzed for life.

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# Laboratory Alliance Issues Biotin Technical Bulletin

By Roy Huchzermeier, Ph.D. FAACC, Director of Assay Development

The potential for biotin supplements to interfere with laboratory results has received a great deal of attention over the past year. Manufacturers of lab test kits have been increasingly utilizing biotin-containing formulations in their reagents because of the enhancement in performance that can be achieved. Although these test kits are not susceptible to interference from biotin at concentrations historically present in samples, the use of more potent biotin supplements over recent years is now resulting in higher biotin concentrations in the blood that may be high enough to interfere with some lab test results.

Late last year the Food and Drug Administration (FDA) issued a safety communication warning that biotin may interfere with lab tests. The warning was issued because of an increase in the number of reported adverse events, including one death related to biotin interference with lab tests. In this safety communication, the FDA recommended that lab personnel should “Educate healthcare providers about biotin interference with certain lab tests used in your lab”. In our Fall 2017/Winter 2018 issue of *LabLines* we included an article that discussed the potential for biotin supplements to interfere with lab results. However, at that time we did not have specific information regarding the impact of biotin on the tests that we perform.

Over the past year we have received information from the manufacturers of the test kits and instrument systems that we use at Laboratory Alliance regarding the degree of susceptibility of their products to biotin interference. Not all tests are susceptible to interference from biotin, and the degree of susceptibility varies between tests. Furthermore, high biotin levels may produce falsely elevated test results in some susceptible tests, but falsely depressed test results in other susceptible tests.

In an effort to provide our clients with specific information regarding the effect of biotin supplements on Laboratory Alliance’s test results, we have utilized the information from our test and instrument manufacturers to prepare a technical bulletin. The purpose of this bulletin is to provide our clients with a list of the tests that may be impacted by biotin supplements, as well as provide an indication of whether the biotin would cause falsely elevated or falsely depressed test results. This bulletin should be particularly helpful to providers when lab results are inconsistent with a patient’s clinical presentation, and the patient may be taking biotin supplements. This technical bulletin was sent to all Laboratory Alliance clients, and it is available on the Laboratory Alliance website at [laboratoryalliance.com](http://laboratoryalliance.com). Since new and improved test methods are continually being implemented at Laboratory Alliance, we will update and re-issue this technical bulletin as necessary.

“  
**The FDA is working with stakeholders to better understand biotin interference with laboratory tests.**  
 ”

FDA press release

## About Biotin

### From Lab Tests Online

#### What is Biotin?

Biotin, also called vitamin B7, vitamin H and Coenzyme R, is a nutrient that the body requires in small amounts. It is a coenzyme that is necessary for fat, protein, and carbohydrate metabolism—it helps turn the food you eat into energy. It also has a role in hormone production. The average daily recommended amount of biotin for healthy adults is 30 micrograms/day. Biotin is found naturally in foods such as meat, fish, eggs, seeds, nuts and certain vegetables, such as sweet potatoes, spinach, and broccoli.



### LAB TESTS ONLINE

Your Trusted Guide

Understand your tests. Empower your health.

Learn more about biotin by visiting the Lab Tests Online website at [labtestsonline.org](http://labtestsonline.org). Lab Tests Online is a health information web resource designed to help patients and caregivers understand the many lab tests that are a vital part of medical care. The site is produced by American Association for Clinical Chemistry (AACC), a not-for-profit organization.

## Biotin: Friend and Foe

### Biotin can interfere with some test results. What can you do?

- You can continue taking supplements that contain biotin. It is a nutrient your body needs.
- Tell your healthcare practitioner if you take biotin or supplements containing biotin.
- Be proactive: know exactly what is in your supplements by carefully reading all labels.
- Talk to your healthcare practitioner or pharmacist if you are not sure if something contains biotin.
- Follow instructions from your healthcare practitioner who may advise you to avoid taking biotin before a scheduled blood draw.
- Alert your health care practitioner if you forget and take biotin before a scheduled blood draw.

Watch their video “Biotin: Friend and Foe” posted at [labtestsonline.org/articles/biotin-affects-some-blood-test-results](http://labtestsonline.org/articles/biotin-affects-some-blood-test-results). Learn how a patient almost had a costly and unnecessary procedure due to test results impacted by biotin interference.

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In extreme cases of disease, the patient's diaphragm that controls breathing is paralyzed requiring that the patient be placed in an Iron Lung Machine that prolongs the patient's life by regulating breathing. Post-polio syndrome (PPS) can occur 25 to 40 years after an initial paralytic attack. In PPS, progressive muscle atrophy develops probably due to ongoing motor neuron deterioration.

### Laboratory Diagnosis

Now that polio has been eliminated in the U.S., laboratory tests are not routinely performed to detect the virus in clinical specimens. Prior to that time, however, clinical microbiology laboratories received throat and rectal swab specimens from patients suspected of infection and attempted to grow the poliovirus using special laboratory techniques. Fortunately, these methods are no longer needed.

### Treatment

Treatment is supportive. There is no curative therapy for polio.

### Prevention

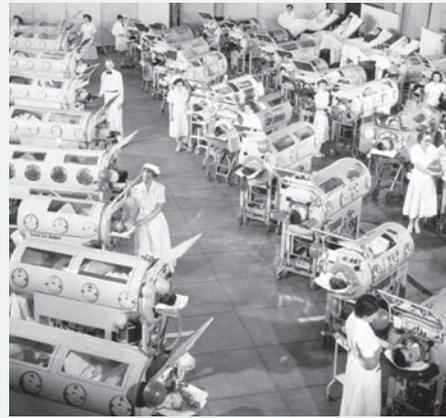
With the exception of Afghanistan and Pakistan, polio has been eliminated globally due to the widespread availability and use of two vaccines: the Salk vaccine and the Sabin vaccine. The Salk vaccine consists of the three **dead** strains of the poliovirus (PV1, PV2, and PV3) and is administered by injection. The Sabin vaccine, developed by Dr. Albert Sabin in 1961, is administered orally and consists of the three **live** strains of the polioviruses. These live polioviruses have been attenuated or modified so that they are incapable of causing symptomatic infection but are capable of stimulating a robust immune response necessary to prevent infection. Since their development, both vaccines have undergone various modifications to improve their effectiveness.



Dr. Jonas Salk (top), developer of the Salk injectable vaccine, and Dr. Albert Sabin, who developed the Sabin oral vaccine.

### Summary

We are fortunate to live in an age where scientific discovery and modern medicine have provided us with many vaccines that protect us from a growing number of infectious diseases. Vaccines not only improve the quality of life but also prolong it. Vaccines are now available to minimize the severity or prevent the diseases of pertussis (whooping cough), diphtheria, tetanus, influenza, hepatitis A, and meningococcal disease, along with many others. Perhaps no vaccine has had greater impact on global human health than the Salk and Sabin polio vaccines. It is noteworthy that despite their enormous contributions towards the worldwide elimination of polio, neither Dr. Salk nor Dr. Sabin was ever recognized for their contributions to modern medicine and human health by being awarded the Nobel Prize. This article pays small homage to these two individuals by posting their images as tribute and testimony to their great achievements.



A hospital ward in the 1940s with patients maintained on life support using Iron Lung Machines.

## Acute Flaccid Myelitis

### Background

Acute Flaccid Myelitis (AFM) is a new polio-like illness that has attracted considerable media attention over the last few months. From 2014 through Oct. 16, 2018, the Centers for Disease Control (CDC) have documented 386 cases of AFM throughout the United States. From Jan. 1, 2018 to Oct. 16, the time of this writing, 62 cases of AFM have been documented. The CDC emphasizes that AFM is a very rare condition affecting well less than one in a million people in the United States each year. Despite its infrequent occurrence, however, AFM is a serious condition that causes

weakness in the arms and legs as well as paralysis. The paralysis can be temporary or it may persist.

### Epidemiology

The CDC first began tracking AFM in 2014 when the first cases were reported. As mentioned previously, a total of 386 cases have been documented as of mid-October 2018. However, that number is probably considerably higher since AFM is not a reportable disease at this time. The exact cause of AFM is unknown but the CDC suggests that the condition may be caused by a recent viral infection, possibly due to an enterovirus or West Nile virus, or exposure to certain environmental toxins.

### Cause of AFM

At the time of this mid-October writing, the cause of AFM is unknown. However, the patient symptoms of AFM have been most similar to complications of infections caused by certain viruses, including polioviruses, non-polio enteroviruses, adenoviruses, and West Nile virus. Importantly, there is no evidence indicating that the polio-like illness of AFM is caused by any of the polioviruses or, for that matter, any other infectious agent. However, an increase of AFM cases in 2014 coincided with a national outbreak of severe respiratory illness caused by enterovirus D68 (EV-D68). EV-D68 is one of the over 100 strains of enterovirus that is closely related taxonomically to the polioviruses. Although the CDC is actively investigating EV-D68 as a possible cause of AFM, there is no convincing evidence to incriminate this virus as a cause of AFM at this time.

### Symptoms

The majority of patients (90%) that develop AFM are children under the age of 18 and have an average age of 4 years. Common symptoms include sudden weakness and loss of muscle tone in the arms and legs. These symptoms are usually temporary but may persist. In addition, individuals may experience difficulty swallowing, facial or eyelid drooping, and slurred speech. To date, one childhood AFM death occurring in 2017 has been reported.

### Treatment

Immunomodulatory therapies and other interventions have shown no effectiveness in treating AFM. Management is supportive.

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## New Analyzer in Use at the Operations Center

By Cheryl M. Haskins, MS, MT(ASCP)SC, Manager, Chemistry and Referral Testing

After a thorough search of available options to replace Laboratory Alliance's aging immunoassay equipment, a new Siemens Centaur XPT was installed at the Operations Center in April. The planned workload for the instrument was consolidation of testing from the Ortho VITROS 3600 and Beckman Coulter DXI600 as well as migration of three assays that were previously performed on the Siemens Immulite 2000 XPi.

After several months of assay validations, procedure-writing, Laboratory Information System (LIS) interface definition/

validation and process assessments, we were ready to begin the implementation plan.

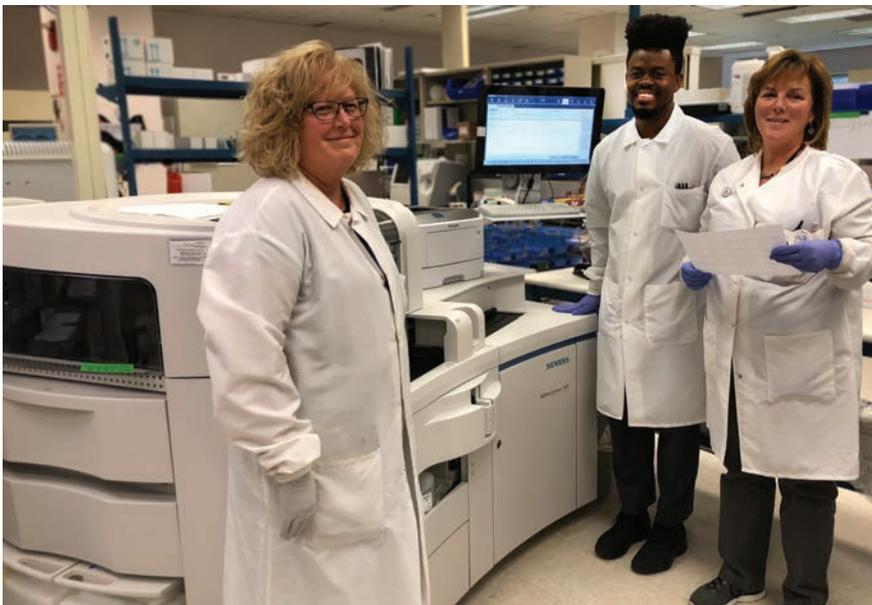
On Monday, Aug. 20, field service engineers from Ortho, DiaSorin and Siemens arrived at the Operations Center to begin moving equipment. The Ortho VITROS 3600 was decommissioned and moved out of the laboratory, the DiaSorin Liaison XL was relocated and the Siemens Centaur XPT moved into its permanent location. By late afternoon, we were up and running on the new equipment.

Over the next several weeks, we continued to fine-tune processes and work on autoverification rules in the LIS. Current status is

fully functional with approximately 350 tests resulted each weekday. The assay menu includes hepatitis and HIV serology, tumor markers and endocrine testing. Approximately 95% of the test results generated file to the patient's chart automatically based on the autoverification rules.

Following a three-month period of parallel reporting for tumor markers CEA and CA-125 in mid-October, the DXI600 was decommissioned and removed, completing the project.

The benefits realized by implementation of the new analyzer include consolidation of platforms, ease of operation, and simplification of processes. All of these enable operation on the evening shift despite the severe staffing challenges which we are currently experiencing. That, in turn, allows testing to be completed upon receipt in the laboratory, providing same-day results for some testing that was previously not available on the day of collection.



Pictured with the analyzer is, from left, **Michelle Botwinick**, evening supervisor, **Michael Adetu**, primary operator, and **Lori Martin**, chemistry supervisor.

## New Polio-like Illness: AFM

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### Summary

AFM is an uncommon polio-like illness whose cause, at this point in time, is unknown. Although the symptoms of AFM may mimic that of polio, there is no evidence incriminating the polioviruses as a cause of this disease. However, there appears to be an association between individuals with a history of EV-D68 respiratory infection and the development AFM. Once again, however, there is no convincing evidence confirming EV-D68 as the cause of AFM. In short, the CDC and public health officials have more questions about AFM than answers but are actively continuing their investigations. As more information about AFM is gathered, an updated article will be published in a future issue of *LabLines*.

## Welcome, New Clients

**Bishop Rehabilitation and Nursing Center**  
Syracuse, N.Y.

**Camillus Surgery Center**  
Camillus, N.Y.

**CNY Obstetrics and Gynecology**  
East Syracuse, N.Y.

**Groton Family Practice**  
Groton, N.Y.

**Peregrine Living at Onondaga Hill**  
Syracuse, N.Y.

**Tully Hill Alcohol and Drug Treatment Center**  
Tully, N.Y.

**United Medical House Calls**  
Syracuse, N.Y.

**WellNow Urgent Care**  
Oswego, N.Y.

**WellNow Urgent Care**  
Rome, N.Y.



The staff at **Pathology Associates of Syracuse, PC** participated in the 2018 Warrior Dash in August in Pennsylvania. The 5K obstacle course tests participants strength as they race through mud, water, fire and other tough obstacles, all while raising donations for St. Jude Children's Research Hospital. This group photo was taken after the warriors were cleaned up and back to work in their offices at Crouse Hospital. Pictured, in the front row, left to right, are Doreen Gillette, Joni Ducey, Dr. Teriza Shehatou, Dr. Rachel Elder, Dr. Shelli Bregman and Roberta Demoski. In the back row, left to right, are Sara Waldron, Pat Wojcik, Dr. David Inman, Don Massey, Dr. John Fazio, Dr. Mark Costaldi, Dan Disbrow, Vanessa Coates and Mike Sovocool.

## Publications



Microbiology Manager **Russell A. Rawling**, Medical Technologist **Katrina Zeglin**, Director of Microbiology **Paul Granato, Ph.D.** and Andrea Bertolero co-authored a publication titled "Endocarditis and Aortic Root Abscess Caused by Mycobacterium avium complex — A Case Report," published in March in *Clinical Microbiology Newsletter*.

Also, Dr. Paul Granato's article, titled "Genital Zoster - The Great Imposter," was published in the October issue of *Clinical Microbiology Newsletter*.

## Thanks, Laboratory Alliance!

Each year, Laboratory Alliance contributes a gift basket to Hospice of Central New York for the organization's premier fundraising event of the year, "September Song." Preparing the basket for delivery are Laboratory Alliance Customer Service Representatives **Jaclyn Hughes**, left, and **Melissa Belfield**.

Laboratory Alliance supported Francis House's fall fundraiser, "There's No Place Like Home." Francis House provides a home and an extended family to people with terminal illnesses so they can die with dignity and experience the unconditional love of God. In the weeks leading up to the event, Jeff Coyne, director of sales and support services, collected nearly \$500 selling raffle tickets. Several employees volunteered at and attended the event on Oct. 10 at the Fairgrounds. Attendees purchase keys hoping to pick a winner that will open the door of a miniature house to win a lovely prize.



## LA Newsmakers

### Employee Anniversaries

**September, 5 years**

Melleny Hale

**September, 10 years**

Brenda Milliman

**September, 15 years**

Kathleen Campanaro

**September, 20 years**

Joan Bonaparte

Michelle Botwinick

Josephine Gervasi

Daria Lebduška

Sue Maloney

Sister Maria Grace

Dru Ellen Neis

Debra Neverette

Heidi Jo Robinson

Alan Tucker

Olga Volyanik

**October, 20 years**

Anne Chamberlain

Shelley Murphy

Kathleen Real

Jane Roller

Katrina Zeglin

**November, 5 years**

Gregg Hamilton

**November, 20 years**

Maria Dillon

Barbara Guiffrida

Carl Huppman

Anne Marie Mullin

**December, 20 years**

Jeff Coyne

### New Employees

Please welcome our new employees

#### At our Operations Center

Nancy Albro - Courier

Robert Bloodough - Courier

Michael Gigliotti - Device Trial Specialist

Sarah Helstein - Phlebotomist

Samantha Klink - Laboratory Office Assistant

India McCarthy - Phlebotomist

Kara McMullen - Histology Technical Assistant

Robert Nicklaw - Courier

Brianna Pfaff - Phlebotomist

Alexandra Piascik - Courier

Jacqueline Porter - Phlebotomist

Alyssa Rougeau - Phlebotomist

Richard Salisbury - Courier

Amy Schiano - Phlebotomist

Cassidy Stone - Phlebotomist

Lisa Sutton - Laboratory Office Assistant

Robert Tucker - Courier

Ashley Winn - Laboratory Office Assistant

#### At our Corporate Offices

Steven Blaauboer - Information Systems Analyst

Lydia Ripke - Information Systems Analyst

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

Linda Viengvilayvong - Medical Laboratory Technician

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

Evgenija Dimova - Technical Processing Assistant

Patrick Smith - Technical Processing Assistant



### Accepting Toys for Tots and Salvation Army Donations



Laboratory Alliance will support both the **U.S. Marine Corps Toys for Tots** campaign and the **Salvation Army Food Drive** during the holiday season. Employees and visitors to several of our locations can put unwrapped new toys and non-perishable food items into collection boxes before the deadline of **Wednesday, Dec. 12**. Then, our couriers will deliver everything to our local donation centers.

Thanks for your help in making the holidays special for our community's less fortunate families! Food Drive items can include ...

- Canned or dry mix soups.
- Hamburger Helper (or similar) boxed dinners.
- Canned meats and stews: tuna, Manwich, Spam, Dinty Moore.
- Spaghetti and other pastas. (Ramen noodles, etc.).
- Canned cooking sauces such as spaghetti sauce, pasta sauces
- Pork and beans.
- Packaged dry goods: rice, stuffing, boxed potatoes, baking mixes.
- Breakfast foods: cereal, oatmeal, pancake mix, syrup.
- Juice or fruit drinks in cans or plastic containers.
- Please: No glass jars, perishable food items, produce or pet food.



**Elsie Wilson** recently retired from Laboratory Alliance's Microbiology Department following a remarkable professional career of 63 years as a medical technologist. Friends and co-workers honored Elsie at a retirement luncheon which was followed up with this cake.

## What You Should Know About the Flu

An update from the Onondaga County Health Department

### Flu and Pneumonia - Key Facts About the Flu

#### What is the Flu (influenza)?

The flu is a serious and contagious respiratory illness caused by the influenza viruses.

#### What are the Symptoms of Flu?

Symptoms of flu may include:

- Fever or feeling feverish
- Chills
- Cough
- Sore throat
- Runny or stuffy nose
- Muscle or body aches
- Headache
- Fatigue
- Occasionally vomiting and diarrhea

#### How is the flu spread?

The flu is spread by droplets made when people with the flu cough, sneeze or talk. Droplets can travel as far as six feet away. It can also spread by people touching surfaces that have flu virus on it and touching their eyes, nose, or mouth.

#### Who is at highest risk of flu complications?

- Children younger than 5, but especially children younger than 2 years old
- People 65 years of age and older
- Pregnant women
- People of any age with chronic medical conditions such as asthma and a weakened immune system
- People who live in nursing homes and other long-term care facilities

#### How Can I Prevent the Flu?

**The single best way to prevent the flu is to get a flu vaccine each season.** Everyone over 6 months of age is recommended to get a flu vaccine each year. Flu vaccines are available for persons over 6 months of age. FluMist® is available for healthy people 2-49 years of age. People should get vaccinated every year because immunity to influenza viruses decline over time and circulating strains often change from year to year.

In addition to getting the flu vaccine, take extra hygiene precautions to protect yourself and others from the flu:

- Wash your hands often with warm water and soap
- Cover your nose and mouth with a tissue or with your arm when you sneeze or cough
- Avoid close contact with anyone who is sick
- If you do get sick with the flu, stay home and away from others for at least 24 hours after your fever is gone

Call your medical provider as soon as you feel ill, especially if you have medical conditions, so that you may be prescribed antiviral medications.

#### When should I get a Flu Vaccine?

You should get your flu vaccine as soon as it becomes available each year, however, there is benefit to getting the vaccine later as long as the flu is still circulating.

#### Where can I get my flu shot?

Onondaga County Health Department offers a weekly flu vaccine clinic for the public every Wednesday, from 9 a.m. - noon in Room 30 (basement level) of the Civic Center. The clinic provides



The flu is spread by droplets made when people with the flu cough, sneeze or talk.

flu vaccine for Onondaga County residents 6 months of age and older. This is a walk-in clinic, no appointments are necessary.

#### Pneumococcal Vaccine Recommendations

The CDC recommends pneumococcal vaccine (also called the pneumonia shot) for all adults over 65, and for adults 18 – 64 with long term health problems, conditions or medications that lower the body's resistance to infection, and for those who smoke or have asthma. Adults age 65 and older should receive a series of two different types of pneumococcal vaccine. They should routinely receive PCV13 and PPSV23 at least 12 months apart.

## Calendar of Events

**Thursday, Nov. 1 - Friday, Nov. 2**

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

**Wednesday, Dec. 12**

**Donation deadline for U.S. Marine Corps Toys for Tots and Salvation Army Food Drive for the holiday season.** Drop boxes located at several Laboratory Alliance locations and throughout the community.



LabLines is published four times a year. Comments, suggestions or inquiries should be directed to **Joan Rusin**, Senior Executive Assistant, 315-461-3038, or by email to [joanrusin@lacny.com](mailto:joanrusin@lacny.com)