Consuming raw-milk products not worth the risk

Pregnant women, infants and young children should avoid raw or unpasteurized milk and milk products and consume only pasteurized products, according to a new policy statement from the American Academy of Pediatrics.

The statement’s lead author is Yvonne Maldonado, MD, professor of pediatrics at Stanford University School of Medicine, who said there is no scientific evidence that consuming raw milk provides any advantages over pasteurized milk and milk products. “Relative to the amount of raw-milk products on the market, we do see a disproportionately large number of diseases and illnesses from raw milk,” said Maldonado, an infectious disease expert and pediatrician at Lucile Packard Children’s Hospital Stanford.

Whether from cows, goats or sheep, raw milk and milk products are a continuing source of bacterial infections that are especially dangerous to pregnant women, fetuses, the elderly, young children and people with compromised immune systems, the statement says.

Between 1998 and 2009, there were 93 recorded outbreaks of disease resulting from consumption of raw milk or raw-milk products, causing 1,837 illnesses, 195 hospitalizations and two deaths.

Double Nobels
Two Stanford scientists receive top honors

Last year was a banner year for the School of Medicine, as two faculty members were honored with the 2013 Nobel Prize, medicine’s most coveted prize. Thomas Südhof, MD, professor of molecular and cellular physiology, was recognized for his research in understanding how nerve cells communicate. Michael Levitt, PhD, professor of structural biology, was honored for his work in developing sophisticated algorithms to build models of complex biological molecules. Turn to page 4 to read how the two Nobelists reflect on their work, the potential impact on medicine and their experiences receiving the prize in Stockholm in December.

See Nobel on Page 4
SoundBites

Family matters
Keeping life normal with multiple diabetes diagnoses

The New York Times
“Don’t think it makes up for a bad diet—that you can eat a lot of fast food and then take a bunch of supplements. That’s not a good idea.”
—Stephen Fortmann, MD, professor emeritus in disease prevention, describing the use of supplements and multivitamins to prevent chronic conditions as a waste of money. Dec. 16

NBC NEWS
“Men are suffering! They aren’t as resistant. Women are superior. There’s no way around it.”
—Mark M. Davis, PhD, professor of microbiology and immunology, on his finding that high testosterone levels in men may make them more prone to getting the flu. Jan. 7

REUTERS
“It’s important to look at how to increase hours of sleep among teenagers.”
—Iris Litt, MD, professor of pediatrics emerita and a specialist in adolescent medicine, on a study that found that too little sleep might be a sign of—or contribute to—emotional problems and anxiety among teens. Jan. 17

San Francisco Chronicle
“I really want to know what makes these people tick. What makes these people so special? Why are they doing this?”
—Eswar Krishnan, MD, assistant professor of medicine, on the health of ultra-runners. Jan. 22

HealthDay
“The FDA walks a tightrope, and until now we haven’t had a huge amount of information about how they’re doing that. It’s a difficult balancing act that requires constant monitoring.”
—Steven Goodman, MD, PhD, professor of medicine and of health research and policy, and associate dean for clinical and translational research, on how not all FDA-approved drugs get the same level of testing. Jan. 21

Type 1 diabetes does not put a damper on the Bergh children’s activities. From left to right are Maleki, 11; Marae, 8; Averie, 2; Jaeda, 5; and Sienna, 9. Both Maleki and Marae have the disease, and tests indicate that Jaeda is likely to develop it as well. Type 1 diabetes usually affects children and young adults, according to the American Diabetes Association, and usually runs in families. People with type 1 diabetes produce little or no insulin, a hormone that helps turn sugars into energy for the body’s cells and tissues. Without insulin, excess sugar builds up in the bloodstream and may eventually cause damage to the organs and life-threatening complications. People with type 1 diabetes must learn how to test and regulate their blood sugar.
Neuroscience building designed to transform patient services

Diagnoses, injuries and disorders of the brain and nervous system, such as Alzheimer’s, Parkinson’s disease, brain tumors, multiple sclerosis and stroke, are some of the most devastating and difficult to treat in all of medicine. The challenge is to provide integrated care that merges the expertise of neurologists—who specialize in diagnosis and treatment—with the skill of neurosurgeons and interventional radiologists who perform therapeutic procedures.

Stanford Hospital & Clinics will break ground this month for a new building that will bring under one roof key programs and services in all these subspecialties, an approach that will transform care for patients. The $79 million, 92,000-square-foot neuroscience building is the newest addition to Stanford Medicine’s Renewal Project. The four-story building (with one floor below ground), scheduled to open in late 2015, will be located next to the recently renovated Hoover Pavilion on Quarry Road.

“The neuroscience building will integrate neurology, neurosurgery and interventional neuroradiology outpatient services, along with specialized support services, in a single location, creating a superior ‘one-stop destination’ experience for our patients,” said Alison Kerr, executive director of the neurosciences service line at Stanford Hospital & Clinics. “It’s a comprehensive model that is not available anywhere else in the country.”

Coordinated care

The building has been designed with the unique needs of neurological patients in mind. For example, a dark room will be easily accessible for migraine patients who require dim light and quiet to help relieve their symptoms. Onsite infusion stations will allow people with multiple sclerosis, brain tumors or neuroendocrine disorders to see their doctors and receive treatment in one location. Exam rooms will be large enough to fit multidisciplinary care teams. Interior colors will be subdued, and all light fixtures will be dimmable to accommodate the acute sensitivity of many patients.

Labs for diagnostic tests, exam rooms, imaging technologies, treatment areas, and rehabilitation and support systems will be close by, making it easy for patients to coordinate visits for tests and visits, and for physicians to work collaboratively.

A great room on the first floor, adjacent to a gait and balance laboratory, will have a flexible floor plan so it can be adapted for movement rehabilitation sessions as well as lectures and group meetings. Clinical research facilities will be located on the top floor, so School of Medicine investigators can work closely with clinicians, while patients will have easy access to clinical trials.

“We have an unprecedented opportunity with this building to establish a collaborative approach to all aspects of care for our patients,” said Frank M. Longo, MD, PhD, chair of the Department of Neurology and Neurological Sciences and a professor of neurology at the School of Medicine. “It’s going to offer a significant way to improve efficiency and share expertise.”

Shared design process

The building’s layout and infrastructure is the result of months of planning based on the insights of the people who will be using the facility, including patients, physicians, nurses and staff.

“There was a lot of exchange between the users and the designers,” said Rachel DeGuzman, a senior project manager at Stanford Hospital & Clinics. “This collaboration helped us refine our selection of interior details and finishes that support the needs of the patients as well as the staff.”

Patient input was especially helpful, she added, because of the wide variety of neurological conditions that will be managed in the new building. The planning group solicited advice from the hospital’s neuroscience Patient Advisory Council, made up of caregivers and patients.

Council member Sondra Erickson of Palo Alto said the group focused on specific design details to accommodate patient needs. She and her fellow council members suggested that long hallways have handrails for unsteady walkers and that a spot be provided for visitors to relax while waiting during patients’ appointments.

DeGuzman and her team worked to streamline the physical flow and minimize distances to make the check-in and paperwork process easier for patients who may be physically challenged or require extra help or privacy.

“We wanted to make it run as smoothly as possible, which meant looking not just at the physical space but at how the whole system worked,” she said.

Streamlined system

One of the most significant aspects of the new building will be its patient check-in and registration system, which will be consolidated into one stop on the ground floor. Patients with several appointments will receive a same-day itinerary and be able to move from floor to floor without additional check-ins.

“Our neurology, neurosurgery and neuroscience clinical services currently are scattered around different parts of the hospital, so patients often need to check in multiple times and schedule multiple visits,” Kerr said. “The new building puts the patient in the center and focuses on making it simple, streamlined and logical to check in.”

Another unique aspect is how neurology, neurosurgery, interventional radiology and rehabilitation services will be clustered to streamline teamwork. Exam rooms will include integrated consultation space, while patients will benefit from a multidisciplinary approach in which specialists will meet to discuss each individual’s treatment.

“The building will integrate the synergies of how we practice medicine and create a huge advantage for patients,” said Gary Steinberg, MD, PhD, chair of the Department of Neurosurgery and professor of neurosurgery at the School of Medicine. “It will be a place dedicated to restoring neurologic function and improving quality of life.”

The new neuroscience building will consolidate key programs in neurology, imaging and neurosurgery under one roof.
Thomas Südhof, MD

Insights in cellular communication

Your focus is on basic science, but what you learn in the lab could be very important to helping understand and treat diseases of the brain. Your research related to autism is a good example. Please tell us more about your work in this area.

We identified a series of genes that enable the communications of neurons with each other at synapses, which are the connections between neurons that allow them to talk to each other. It turned out that these genes were mutated in autism, providing an unplanned serendipitous insight into autism. Among others, this led to my friendship with a Massachusetts family with two sons with autism caused by mutations in one of the genes we identified, motivating me to think more deeply about the relation of our work to autism. Currently this is the most active part of our work, and we are enthusiastic about the possibility—remote as it may be—that we can contribute to a better understanding of how an impairment of the communication between neurons may produce autism.

How will your research on synapses help us understand disorders such as Alzheimer’s and Parkinson’s?

Synapses are the most important attributes of a neuron. They connect neurons to networks and circuits, and represent not only the point at which neurons communicate with each other but also the most fundamental information-processing unit in the brain.

Enormous advances in human genetics over the last decade have given us tremendous information on what gene mutations predispose to these diseases, but we do not know why. There are many very expensive clinical trials being conducted based on hunches, on wishful thinking. These trials will cost more than the basic research that prompted it and do not have a very high chance of succeeding. People are going to ask themselves, “Why are we doing this?”

This is where synapses come in: From the little we know about these diseases, synapses are centrally involved. But we do not really understand synapses, and we certainly do not understand what happens to synaptic function in these diseases that may produce symptoms. We need to invest in the fundamental biology of the brain, in understanding how the

Michael Levitt, PhD

Merging biology and computation

“Enormous advances in human genetics over the last decade have given us tremendous information on what gene mutations predispose to these diseases, but we do not know why.”

—Thomas Südhof, MD

Early on, you helped bring together the worlds of computation and biology. Why is this marriage important, and how has it advanced the learning curve in biomedicine?

Computers have become essential aids to help understand, predict, modify and design complicated systems. Proper understanding and manipulation of biomedically important proteins and large nucleic acid molecules responsible for the intricate working of life cannot rely simply on experimental work. Increasingly scientists must use computer simulations like those we pioneered from 1967 to 1976.

Key to our work was the design of multiscale models for biological macromolecules. These models were simple enough to enable calculations on machines 10 million times less powerful than today’s computers yet not so simple that they missed the essential details. Somewhat surprisingly, the same models have endured over the past 46 years and are still used in the most advanced simulations today.

Your work has enabled scientists to make computer models of molecules and molecular processes. How might that help in understanding disease?

Diseases and their treatment all depend on the physical and chemical properties of molecules. Any method to improve models of these molecules has huge implications for biomedical science in general and for human health in particular. Drugs will increasingly be designed by computer methods.

One example in my own work involves the use of antibodies to treat cancer. An obvious way to treat cancer would be to inject cancer cells into a healthy patient, harvest the antibodies made against these disease cells and then inject the purified antibodies into the patient. This is clearly out of the question for ethical reasons. Instead, anti-cancer antibodies are raised in mice. The antibody recognizes the cancer cells but is seen as foreign by human cells and is rejected. The computer must model the mouse antibody and then change it to be more like a human antibody (a process called humanization).

Shortly after joining Stanford in 1987, I consulted for a local startup and modeled antibodies for them on the computer. This led to a key paper in 1989 and a patent issued that same year.
iddhartha Mukherjee, MD, PhD, a graduate of Stanford University, is a cancer physician and researcher, and author of the acclaimed book The Emperor of All Maladies, often referred to as a “biography” of cancer. He is an assistant professor of medicine at Columbia University and treats patients at the Columbia University Medical Center. He will be the featured speaker at Stanford Medicine’s Health Matters program on May 10.

We often refer to the “war on cancer,” implying that this is a fight that is winnable. Is that a fallacy?
I think the word war complicates the matter. It implies there is a pitched battle, and for some patients it feels like that. But cancer is a puzzle, and you solve puzzles, which is in some ways a better metaphor. You don’t solve wars. I think it’s a very complex, very human puzzle. It’s not just a scientific puzzle. This is a profound struggle, a profound puzzle, and I think that metaphor is more appropriate.

You have described cancer as a “corruption” of the genes. Can you explain?
The word I often use is “distortion.” Cancer is unlike many diseases in that the very genes that allow cells to grow, if you distort those genes, you unleash cancer. Even cancers caused by viruses and environmentally caused cancers ultimately change the genes that control cell division. So that is the final common pathway.

Some of these genes seem to control control processes that are more mysterious than we originally thought. Some of them control metabolism. They control how cells handle metabolic compounds. They handle how DNA is regulated. There is an air of mystery that remains unsolved about the link between these genes and cancer. Some of the burning questions now in cancer involve these genes.

We often refer to cancer as a universal disease, but is that really the case?
Cancer is not one disease but many diseases. Even with breast cancer, for instance, there is such a fundamental difference between breast cancer that is hormone-receptor positive and hormone-receptor negative. They really behave as fundamentally different diseases.

What important things have you learned from your patients?
It’s not as if I’ve finished the learning process. I think the lesson you learn from patients is to listen and to listen with humility—to have a conversation. People think about medicine as a one-way conversation. There’s also an idea that there are two one-way conversations, one with doctor to patient and one with patient to doctor. But there is no reality to that. I’ve written that hope is negotiated and that our understanding of cancer and its outcomes is negotiated. Decisions about what to do are negotiated. There is a space between the total autonomy of the patient and the total paternalism of the physician, which is the space where real medicine happens.

What are the most promising new directions in cancer therapy?
There are hundreds of promising directions. I’m excited about the ideas of targeting cancer, either the genes or pathways or at the organism level using the immune system. I think it’s incredibly important to talk about prevention—from primary prevention (preventing cancers from arising in the first place) to tertiary prevention (preventing relapse or second cancers). The bottom line is there are many exciting things in terms of new directions.
Non-Pharmacological Treatment of Pain

**Speaker:** Ravi Prasad, PhD  
Clinical Associate Professor, Anesthesiology  
**Date:** Thursday, Feb. 27, 7 pm  
**Location:** Stanford Hospital Health Library, Hoover Pavilion, 211 Quarry Road, Palo Alto  
Registration is required; space is limited.  
To register, call 650-498-7826.

Grandparents Seminar

**Date:** Monday, March 3 or April 7, 6 pm  
**Location:** Community Programs Classroom, 4100 Bohannon Drive, Menlo Park  
Fee. Register online at calendar.lpch.org.

CPR & Child Safety

**Date:** Saturday, March 8, 9 am  
**Location:** Community Programs Classroom, 4100 Bohannon Drive, Menlo Park  
Fee. Register online at calendar.lpch.org.

Heart-to-Heart Seminars

**For Boys Only:** Mondays, March 10 and 17; March 31 and April 7, 6:30 pm  
**For Girls Only:** Wednesdays, March 12 and 19; Thursdays, March 20 and 27, 6:30 pm  
**Location:** Packard Children’s Auditorium, 725 Welch Road, Palo Alto  
Fee. Register online at calendar.lpch.org.

Chronic Sinusitis

**Speaker:** Jennifer Lee, MD  
Clinical Assistant Professor, Otolaryngology  
**Date:** Thursday, March 13, 7 pm  
**Location:** Stanford Hospital Health Library, Hoover Pavilion, 211 Quarry Road, Palo Alto  
Registration is required; space is limited.  
To register, call 650-498-7826.

Bowed Legs, Knock Knees and Pigeon Toes in Children: What’s Normal and What’s Not

**Speaker:** Jeffrey Young, MD  
Clinical Assistant Professor, Orthopedic Surgery  
**Date:** Thursday, March 20, 7 pm  
**Location:** Stanford Hospital Health Library, Hoover Pavilion, 211 Quarry Road, Palo Alto  
Registration is required; space is limited.  
To register, call 650-498-7826.

Healthful Properties of Spices and How to Add Them to Your Diet

**Speaker:** Sangeeta Agarwal, MS, RN  
**Date:** Thursday, March 27, 6:30 pm  
**Location:** Stanford Hospital Health Library, Hoover Pavilion, 211 Quarry Road, Palo Alto  
Registration is required; space is limited.  
To register, call 650-498-7826.

---

**SUDHOFF FROM PAGE 4**

brain works and how synapses work, in order to understand how the function of the brain and of synapses goes awry in neurodegenerative diseases and in order to develop rational drug targets. I hope our work, among those of many others, can contribute to such an understanding that is a prerequisite for developing therapies.

**This is painstaking research, but you have said you are convinced it will eventually lead to new therapies. What makes you so confident that will be the case?**

I am optimistic because this is a model that has worked in other diseases. Treating hypercholesterolemia (high cholesterol) with statins has revolutionized cardiovascular medicine—it was entirely based on the non-translational, curiosity-driven research of scientists trying to understand cholesterol biosynthesis. Similarly, unraveling the genetic pathways of cancer has led to the first rational therapies.

This is the way to go: First figure out the biology, then design treatments. I am optimistic that the same can be done for brain diseases.

**Why is basic science important, and how can we help build support for it?**

Without curiosity-driven work that aims to understand a biological question, we will not understand how the process addressed by the question becomes impaired in a disease. In terms of helping to build support for investing in knowledge, I think we scientists have to start with reforming ourselves. We need to be more honest about what we do, exaggerate less and most of all clean house. We need to ensure that the work which is published is actually true and not just a hyped piece of complex experimentation that in the end means nothing, and we need to pay more attention to being held accountable to what we do is solid and reproducible, instead of sexy and fashionable.

If we as scientists want to espouse the value of truth—which is the ultimate measure of all scientific activity—we have to make sure that this is the value we reward and promote.

In the end, scientists are responsible not just for producing scientific literature but for producing literature that is correct and reproducible—a responsibility that we have often recently failed to fulfill.

**Is there one vivid memory that stands out from the Nobel ceremony in Stockholm?**

The most vivid memory from the Nobel ceremony for me was walking onto the stage, the assembled audience in the theater but also the previous laureates who had been invited as well as the representatives from the various Nobel committees and the royal family. A very moving moment indeed!

---

**LEVITT FROM PAGE 4**

The method was effective in designing an antibody that was both effective against the cancer cells and well tolerated by the patient. It led to an industry with annual sales of many billions of dollars and annual company royalties of $400 million. The patent expires in one year, but this story indicates how calculations, together with protection of intellectual property, years of manufacturing efforts and marketing skills, can lead to massive advances.

We have entered the era of so-called big data, in which scientists can use vast repositories of biomedical data to develop innovative approaches to treatment. What will be the impact of big data?

The phenomenon of big data is both an opportunity and a threat. In the past, data accumulated slowly, which allowed the data to be examined manually, and the brain was used to find underlying patterns. It is key that the patterns be based on some understanding of the system, such as physical laws. Today big data is often approached by statistical methods and computer machine-learning techniques that look for correlations without understanding the physical basis for such effects. This is easily done but may lead to misleading conclusions.

**Can you compare the computers you used in the early days of your**
Sports concussion symptoms vary for boys and girls

Ava James was picking up a ball at soccer practice when another player’s shot smacked the side of her head, slamming it against the goalpost. Dizzy and a little nauseous—classic concussion symptoms—Ava, 13, sat down. Fifteen minutes later, feeling better, she resumed play.

After practice, her head began hurting again. When the pain persisted through the next few days, Ava’s pediatrician referred her to Paul Fisher, MD, chief of pediatric neurology at Lucile Packard Children’s Hospital Stanford and professor of neuro- oncology at the School of Medicine.

Fisher confirmed that Ava had suffered a concussion, a head injury causing temporary impairment of normal brain function, such as loss of awareness or alertness.

As soccer, lacrosse and other sports have boomed, so has the concussion rate for girls, rising 21 percent annually over 11 years. For boys, the increase was 14 percent annually.

Boys often report symptoms that are fairly severe—confusion, bad headaches, forgetfulness—while girls may report milder symptoms, such as drowsiness, malaise or noise sensitivity, said Fisher. But that doesn’t mean a girl’s concussion is any less severe.

He said one of the problems in organized sports is that when girls report milder symptoms to a male coach—and many coaches in girls’ sports are male—the concussion may be missed, as the coach may not be alert to the differences in how boys and girls report symptoms.

Fisher said the best way to reduce the effects of concussions is to spot them early. “Everyone should know the symptoms. Having coaches and parents keeping an eye out isn’t enough; players need to watch out for each other,” he said.

It’s important for children who’ve had a concussion to sit out from sports for a while to keep from getting a second injury before the first one has healed. It’s also important to reduce mental activity.

“After some initial rest, it’s OK to stimulate kids’ brains, but it should be in short pulses—no more than 30 minutes of any particular activity, so their brain doesn’t get fatigued. That applies to watching TV, playing video games, reading and schoolwork,” said neurosurgeon Gerald Grant, MD, associate professor of neurosurgery at the School of Medicine.

Grant said it may be wise to gradually work back to a full school day, as the classroom may be difficult for a student recovering from concussion. The child may have trouble listening, may lack stamina and may suffer memory lapses that affect his or her ability to function effectively in a classroom setting.

Most kids can transition back to a normal level of activity within one to three weeks after a concussion, Fisher said. Those involved in sports should get a doctor’s clearance before getting back on the field.

When Ava saw Fisher two weeks after her concussion, she hadn’t played soccer in a week and a half and had taken a few days off from school. After evaluation, Fisher concluded that she had recovered to the point where she could resume normal activities.

Grant said the key is in managing concussions to make sure everyone involved is on the same page.

“Coaches, parents and players all need to recognize concussion symptoms, and girls should be evaluated if there is any concern,” he said.
Volunteer cuddlers offer comfort to infants and parents

During 16 years of volunteering to cuddle babies in the intensive-care nurseries at Lucile Packard Children’s Hospital Stanford, husband-and-wife psychologists Pat Rice and Claire Fitzgerald have developed a few trade secrets for calming fussy infants.

Rice favors a foghorn imitation. “Boo booooooo,” he demonstrated, his low voice rumbling beautifully. “The resonance and low tone seem to have a positive effect,” he said. Rice also sings quietly to the babies he’s holding—usually “When You’re Smiling, the Whole World Smiles with You”—which once prompted a person across the room to ask, “Is someone playing a tuba in here?”

The hospital’s baby cuddlers provide extra pairs of loving arms for sick infants, reducing the strain of long hospitalizations on both the infants and their families.

“The baby cuddler program has tremendous value,” said neonatologist David Stevenson, MD, director of the hospital’s Johnson Center for Pregnancy and Newborn Services. Parents with hospitalized infants must sometimes be away from the bedside, and physicians and nurses are focused on their patients’ essential medical needs, which sometimes limits their time to attend to more personal needs, said Stevenson, a professor of pediatrics at the School of Medicine.

“The cuddlers are volunteers who address the personal needs of another small human being, holding and talking to them when their parents can’t be present,” he said. “The cuddlers become a part of the health-care team.”

Many years ago, Fitzgerald was in the shoes of the worried parents whose babies she now comforts. When her son was 3 months old, he was hospitalized with a suspected brain tumor at what was then Stanford Children’s Hospital. Fortunately, he was found not to have a tumor and is now the father of three daughters. But the experience left its mark on the young mother.

“People were so fabulous to me,” Fitzgerald said. “I thought, ‘When my hair turns gray, I’m going to come back and say thank you.’” Years later, she began volunteering at Lucile Packard Children’s Hospital Stanford in patient relations, soon adding baby cuddling to her commitments and persuading her husband to join her. “I came home and said, ‘They need some men doing this, too.’”

Most of the cuddlers are women, but Rice would like to see more men volunteer because of the reassurance their example can offer to anxious new fathers. “Some of them are tentative, and I think it helps them to see me,” he said.

Fitzgerald recently received the President’s Volunteer Service Award, honoring her for more than 4,000 volunteer hours at the hospital. She now trains new cuddler volunteers.

Among the couple’s favorite patients was an infant born 14 weeks early. At first, the tiny girl was too small to be held, but as she grew and gained strength, Fitzgerald and Rice cuddled her and cheered for her development, rejoicing when she went home.

Eight years later, they were at a soccer match for one of their granddaughters when the coach invited them to meet his daughter. “I thought it was nice that he was introducing us to the team,” Fitzgerald said. “And then this beautiful little girl came up and said, ‘May I hug you? My mommy says you held me when I was just a little baby.’” It was the same girl, grown into a healthy child who loves to play soccer and ride horses.

Fitzgerald and Rice are grateful that cuddling allows them to make a difference in the world. “When you hold these little babies and see their heart rate get back to normal, you know you’re doing something important,” Fitzgerald said.

“It’s become a major focus of our lives,” Rice added. “It’s an opportunity to extend something we both treasure—to help create an environment that’s conducive to the growth and healing of these babies.”

To learn more about volunteering, please call 650-497-8696 or visit lpch.org/jobsVolunteering/Volunteering/index.html.