

SCOPE

The Magazine of Loma Linda University Health

FALL 2013

Vol. 48, No. 1

How do you **LIVE IT?**

MANY STRENGTHS. ONE MISSION.

A Seventh-day Adventist Organization



LOMA LINDA
UNIVERSITY
HEALTH

There's a new name for the future of healthcare.

LOMA LINDA UNIVERSITY HEALTH

Research, education, and clinical care unite in a common purpose at Loma Linda University Health's eight professional schools, six hospitals, and numerous physician groups: to share our message of healthy living with the world.

Rooted in faith and guided by our mission, our new name reaffirms our commitment to promoting health and transforming lives. At Loma Linda University Health, this is more than something we believe—it's *something we live*.

Live It

Loma Linda University Health's commitment to improve health is lived out through clinical care, education, research, and our message of wellness. Our outreach efforts tie all these together as we strive to help local and international communities experience healthier, fuller lives. This issue of *Scope* brings you stories of our efforts in these areas. Our first story is about a walking example of our new Live It campaign, which encourages our employees and students to practice what we preach and then share it with others.

The stories that follow will bring to life ways in which Loma Linda University Health is practicing clinical care, education, and research in order to transform lives—whether in Thailand or San Bernardino, whether through revealing the health benefits of vegetarianism or advancing cardiac care, whether through offering new degrees or winning Fulbright awards to advance scholarship.

Please enjoy these stories and let them inspire you to *Live It*.

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On the front cover
Pamela Diaz and her daughter, Sybela, pick out some juicy peaches during a visit to the Loma Linda Farmer's Market, which takes place every Tuesday night in front of the LLU Councilors Student Pavilion.

On the back cover
The Tuesday night Farmer's Market has increased engagement by students, staff, and community.

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Andrejs enjoys any type of hiking. However, an experience of winter hiking in the White Mountains of New Hampshire stands out as a highlight.

Live It campaign highlights individuals who live the Loma Linda University Health message

By Larry Kidder

The Live It campaign, recently rolled out by Loma Linda University Health to share a lifestyle of wellness, features a number of faculty, employees, patients, and students who are dedicated to living out the principles of wellness and wholeness.

Andrejs Galeniks, MPH, was the subject of a recent Live It ad, and for good reason. An avid hiker, mountain biker, and runner, Andrejs spends as much time outdoors as he can. While he's out and about, he likes to record the beauty and grandeur around him through the lens of his camera.

"I'm out in the hills and local mountains every chance I get," he says.

Not only does he enjoy the outdoors personally, but he has made it his mission to influence his community to become more friendly to health and wellness.

Andrejs graduated in June of 2013 with his master's of public health degree in health policy and leadership from LLU School of Public Health. For his MPH internship, he worked with the City of Loma Linda to create and put in motion the Healthy Loma Linda Initiative. Toward the end of 2012 and into early 2013, Andrejs led community workshops in which residents were asked to help develop plans to make Loma Linda more encouraging to wellness activities.

"An outcome of our workshops is the new Tuesday night Farmer's Market,"

Andrejs reveals. "We started during the summer with good results. Now that the school year has begun, we're hoping the Farmer's Market will grow in popularity."

In addition to his personal running and biking, Andrejs is a triathlete, adding swimming to his list of activities. This past Labor Day, he took part in the 48th annual "Run to the Top" of nearby Mount Baldy.

"It was my first time at this event," he confesses. "As part of my training regimen, I temporarily became a vegan." Normally, he classifies himself as a lacto-ovo-vegetarian, following a diet that allows some eggs and dairy products.

Another memory is that of going from rim to rim to rim of the Grand Canyon

ACTIVE LIVE IT

ANDREJS: OUTDOOR ENTHUSIAST, VOLUNTEER,
GRADUATE STUDENT

As a Health Policy and Leadership student at Loma Linda University Health, Andrejs is learning how to develop important resources that will help others access the things they need to improve their lives. From designing community outreach programs to volunteering at his church's after-school program, he's passionate about working with people and showing them new pathways to healthier living.

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in November of 2012. "That's crossing the Grand Canyon two times," he explains. "I was somewhat sore after that experience."

Andrejs also enjoys winter trekking. "I've hiked the presidential trail in the White Mountains of New Hampshire, ending up at the peak of Mount Washington," he remembers. "The winter weather on that trail can be brutal."

Now that school is finished, Andrejs has joined the Loma Linda University Institute for Health Policy and Leadership, under the direction of Gerald Winslow, PhD, senior vice president for mission and culture at Loma Linda University Medical Center.

With the passage of the Patient Protection and Affordable Care Act, the State

of California has chosen to set up its own health care exchange. Titled Covered California, the state-run program has allocated \$990,000 to Loma Linda University Health to develop and conduct outreach and education activities on how, beginning in 2014, Californians can access affordable health care coverage under the new legislation.

Loma Linda University Health, in partnership with the Community Clinic Association of San Bernardino County, is one of 48 lead organizations receiving grants totaling \$37 million from Covered California.

Andrejs is working to set up outreach and education opportunities for residents of San Bernardino and Riverside Counties.

In the meantime, he will continue his

Andrejs, a recent LLU graduate and new Loma Linda University Health employee, is pictured in an ad for the "Live It" campaign with his friend, Jaecelle Guadiz, a member of the LLU School of Medicine class of 2013.

passions of mountain biking, running, and photography. "Personal wholeness is not merely eating healthy twice a week or focusing on exercise alone," he emphasizes. "To me, it's a concept where I strive to balance physical, spiritual, and social health altogether."

He adds, "I also believe that the concept of 'making man whole' can further be expanded to the community level and the environment that shapes it." ❖

Students partner with Hispanic community to address issues of obesity and being overweight

“One cannot expect positive results from an educational ... program which fails to respect the particular view of the world held by the people. Such a program constitutes cultural invasion, good intentions notwithstanding.” – Paulo Freire

By Heather Reifsnyder

Academicians possess knowledge and theory, but in order for that to benefit others, scientists and scholars must engage the expertise of an intended specific population before change can happen.

That’s the theory behind a new curriculum developed by LLU School of Public Health students, in partnership with members of the Hispanic community in San Bernardino, that will empower members of this population to reduce their incidence of obesity and being overweight.

These students recently published the curriculum in a peer-reviewed online forum, *CES4Health.info*, devoted to disseminating community-engaged scholarship—insights created in partnership with the people they affect—through formats other than traditional journal articles.

The students—Biblia Kim, Mercy Mui-gai, Kristen Gunther, Mayra Barcnas, and David Busolo—chose to make the curriculum available to others in this manner, free of charge, above what was required by their coursework. They continued this work even after graduating and relocating to different parts of the globe.

“This became more than an assignment,” says Ms. Kim, lead author. “The experience brought life and shape to our reasons for studying public health.”

The curriculum was also written by three leaders of the El Sol Neighborhood Educational Center in San Bernardino: Angelica Alvarez, Lupita Mendez, and

Alexander Fajardo. El Sol is the first organization to use the curriculum. School of Public Health faculty Eddy Jara, DrPH, and Juan Carlos Belliard, PhD, MPH, served as advisers.

Solution to weighty problem

Why the urgency to put this out there? In the County of San Bernardino, California, 42 percent of all deaths are related to obesity—and 76 percent of Hispanic residents in the county are categorized as overweight or obese, according to data from the U.S. Census Bureau and Healthy San Bernardino.

These members of the community are disproportionately affected by this problem that is linked to illnesses including hypertension, diabetes, diseases of the cardiovascular system, stroke, and some cancers.

The participation of El Sol Neighborhood Educational Center and other community members has ensured that the curriculum breaks down barriers of culture, language, and stigma.

This is further ensured because the people who will share this knowledge with the community are Hispanics reaching out to their families, neighbors, and friends. The curriculum trains these ordinary community members, known in Spanish as *promotores de salud*, to be agents for change for better health.

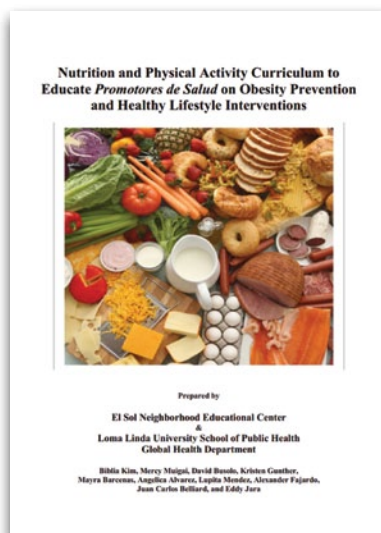
The educational model of using *promotores* is based on the idea of the late Paulo Freire—a Brazilian educator and philosopher who revolutionized theories of pedagogy for marginalized peoples—that adults can be empowered by their life experiences to solve their own problems.

The teaching sessions are designed to be interactive. El Sol uses an educational model in which knowledge is exchanged when both teacher and student learn from each other.

“The *promotores* we’ve worked with are so eager to learn and serve their communities,” says Dr. Jara. “It is inspiring to see them master the content and translate it culturally.”

Ms. Kim feels the same way.

“It was great working with El Sol,” she says. “Many of the *promotores* are pas-



The team prepared a curriculum for the *promotores de salud* to equip them with tools to help educate their communities.



LIVE IT: The curriculum encourages families to exercise more to maintain a healthy weight.

sionate about nutrition, physical activity, and health—not for the sake of the topics themselves, but because they’ve seen the struggles and obstacles that being overweight or obese often places in their own, or their loved ones’, lives.”

Ejercicio y comida saludable

The curriculum was piloted at El Sol to train 20 promotores. Preliminary results showed that 100 percent of the promotores developed a greater understanding of the material and intended to use it to teach others.

Pre- and post-surveys also showed a significantly higher understanding of the

One way the team from LLU and El Sol tested the success of the curriculum was having participants create a *dibujo-voz* (picture voice) about how the training impacted them. The picture below shows one woman’s perception of her transformation to becoming slimmer through exercise and better diet.

benefits of exercise, as well as how to grocery shop, cook, dine out, and read food labels with health in mind.

Participants further reported an increase in their own capacity to exercise more, consume fewer sugary drinks, eat more fruits and vegetables, and prepare healthful snacks for their children.

“I try to get my children and myself outdoors playing and exercising as much as possible,” one says. “We also enjoy eating

healthy snacks and making healthy meals together. I have lost a total of 128 pounds in the last five years, and I feel much better. My four children have also lost weight and gained healthiness along with me.”

As a result of the initial success of this program, El Sol has successfully sought funding from multiple agencies to do trainings in area communities including Perris and Rubidoux.

“Thousands of people have been reached,” says Dr. Jara.

The curriculum has filled a gap in health programs in Hispanic communities using promotores. According to a literature review done by the students, while such programs existed for topics including mental health, breast and cervical cancer, or diabetes, none specifically addressed the vast issue of obesity in adults.

The curriculum is free to any community.

Of the five Loma Linda students who wrote the curriculum, four are now employed in public health roles. Ms. Kim works for the office of public health practice at LLU; Mayra Barcenas spent two years in the Peace Corps and now works at El Sol; Mercy Muigai serves at World Vision; and Kristen Gunther is with Samaritan’s Purse.

The fifth, David Busolo, is now a doctoral student studying cancer control. ✦





Teaching teachers: nursing educators from fifteen countries earn MS degree from LLU

By Nancy Yuen

Alwin Muse, from Atoifi College of Nursing, carefully unwrapped a package to reveal a miniature war canoe. The layers of wrapping had protected the intricately carved canoe during the 4,418-mile journey from his home in the Solomon Islands to Thailand.

Atoifi College is so remote that it had taken Mr. Muse two weeks to travel to the site of Loma Linda University's off-campus master of science degree in nursing program at Asia-Pacific International University (APIU) in Thailand. Every year for three years, he had joined students from 15 countries meeting in face-to-face course sessions with LLU faculty.

As Mr. Muse presented the canoe to Edelweiss Ramal, PhD, coordinator of the MS degree program, he said, "In the Solomon Islands, these canoes were originally paddled to other islands to collect heads for worship. When the first

nurse came to the islands, the very same canoes were used to save lives, transporting medicine to those islands." Mr. Muse thanked faculty and administration from Loma Linda University. "Earning a Loma Linda master's degree," he said, "is an opportunity we never thought would be available to nurses in the Solomon Islands."

On July 29, 2013, wearing academic regalia, 25 students proudly followed Ronald Carter, PhD, provost, LLU; and Marilyn Herrmann, PhD, RN, dean, School of Nursing, into the church on the campus of APIU. The occasion was a joyful recognition ceremony celebrating completion of the fourth and final session of the LLU off-campus MS degree program for cohort three.

"We began to develop the program 10 years ago," says Pat Jones, PhD, director of the school's office of global nursing, "because we were receiving requests from nursing colleagues outside North America asking if LLU could help them acquire a master's degree in nursing." Programs either were not available in their countries, or if they were, students would need to leave their families and jobs for extended periods

of time. And courses were often taught on Sabbath. Church and university administrators also requested, "Can LLU help us develop qualified faculty?"

"Distance education was already happening successfully at LLU," says Elizabeth Bossert, DNS, associate dean of the School of Nursing. "However, this was the first LLU degree in nursing to be offered internationally. Offering clinical classes in an off-campus setting required permission from our accrediting agencies." The program had the potential to be helpful to students and Adventist institutions around the world. It was crucial that the students remained embedded in their respective institutions while studying for the degree, maintaining their commitment to nursing education in their home countries.

"While in the program," says Dr. Ramal, "students continue to work in their home institutions. Each year they travel to Thailand to attend courses for one month, completing pre- and post-term assignments." According to Dr. Herrmann, the curriculum is identical to that taught for nurse educators on the LLU campus.

Students are charged a flat fee which

← Alwin Muse from Atoifi College of Nursing, Solomon Islands, presented a decorative *subi* to Joan Hilde. The *subi* represents a sword; it is a sign of protection and defense against the enemy. Mr. Muse chose it as a gift for Ms. Hilde because she is seen as the students' protector and defender by helping to make the program possible. Also pictured is Edelweiss Ramal, PhD, coordinator of the off-campus MS degree program.

goes toward the cost of travel, accommodations, food, and textbooks (often subsidized by their Seventh-day Adventist Church employers and divisions). Operating costs are covered in part by donors.

The first two cohorts, from 2005 to 2008, were offered simultaneously—the first in Thailand and the second in South America. Forty-two students graduated from these two groups.

Dr. and Mrs. Jack and Joan Hilde have supported the second and third cohorts. "The program," says Mrs. Hilde, "has the potential to change the world. I like its scope; it doesn't end when a class graduates. Each person passes on knowledge. They are teachers who continue to teach. Many graduates have told me that this master's degree program is the first time teachers have shown that they care about them as individuals as well as students. They are determined to bring this to their own classrooms. When Dr. Jones told me about the program, I knew I wanted to support it."

Dr. Ramal explains how this transformation is possible. "The faculty members," she says, "strive to reflect Christ's teaching methods. After experiencing caring, competent teaching from LLU faculty, students tell us that they are no longer the same. Not only have they grown professionally, they have changed as persons."

According to Dr. Herrmann, "the off-campus program is a rare opportunity for LLU to develop qualified faculty from the Adventist perspective for sister denominational schools of nursing globally. By 2013, 67 alumni outside of North America are reflecting and sharing the values of LLU School of Nursing through nursing education." ✦



Global Partnerships in Nursing Conference: the future of nursing—global Adventist perspectives

Nurses from 12 countries representing seven divisions of the Seventh-day Adventist Church recently gathered in Bali, Indonesia, to attend the 10th Global Partnerships in Nursing Conference. Attendees included staff nurses, faculty members, and administrators from hospitals and schools of nursing.

Held July 31 to August 5, the conference was organized by the LLU School of Nursing office of international nursing.

Presenters shared updates about Adventist nursing in their countries. Other sessions addressed effective leadership, patient safety, and the nurse's role in healing and wholeness.

Attendees met in working sessions each day, answering challenging questions. These included identifying the core elements of Adventist nursing, and the common threads that can enrich existing and new programs so they will be uniquely Seventh-day Adventist.

Fifteen years ago, Dr. Jones approached Dr. Ralph and Mrs. Carolyn Thompson with a proposal. Mrs. Thompson, an alumna of the School of Nursing, had shared that one of her dreams was to help promote continuing education for Adventist nurses globally. Dr. Jones envisioned regional and global meetings whereby nurses around the world would gather to network and learn from one another. Mrs. Thompson was delighted with the plan; she and Dr.

Thompson agreed to provide financial support for the project.

That was in 1998. Just one year later, the result was the first Global Partnerships in Nursing Conference, held in Thailand. The next year, in 2000, a second conference was held in Brazil. Over the years, conferences have been held in several other countries including China, England, Malawi, Romania, South Africa, and Switzerland.

Adventist nursing shares a history dating back to the late 1800s, and the Church has built a network that is globally recognized as outstanding in practice, education, and administration.

"My challenge to the group in Indonesia," says Dr. Jones, "was to ask if we are simply a beautiful diverse network, or a powerful force for change. Are we ready to acknowledge the two constituencies to which we belong—the global network of Seventh-day Adventist nurses and nursing faculty, and our fellow human beings who need a higher level of well-being? If we accept our responsibility to serve both, we must become globally connected and function as a dynamic, interactive system."

Dr. Jones left the group with a call to action: to demonstrate courage, innovation, passion, and commitment to strengthen Adventist nursing education and practice globally, thereby impacting health and saving lives. ✦



Pat Jones, PhD, director, office of international nursing, School of Nursing, and associate director for nursing, department of health ministries, General Conference of Seventh-day Adventists, challenged nursing administrators and educators from 12 countries to work together to make the Adventist Church's network of universities and health care institutions a powerful force for change, functioning as a dynamic, interactive system.

Loma Linda University Health K-9 units: helping to make the community safer

By Nancy Yuen

It's 6:30 p.m. at San Bernardino City yard. The area is deserted; dusk is less than two hours away. A vehicle emblazoned with the words "San Bernardino SWAT team" enters the yard. A few minutes later San Bernardino and Colton police department units arrive, followed by a vehicle driven by an officer from Union Pacific Railroad.

Loma Linda University Health security officers Corporal Dwayne Symonett and Sergeant Doug Welch join the others next to an abandoned office building. Each officer leads a K-9 unit; their four-legged partners wait in their patrol cars.

Led by a trainer, the teams take turns practicing scenarios designed to prepare officer and dog for searches. Corporal Symonett and Ki, a German shepherd, search an alley. Corporal Symonett commands Ki to "sit," then calls out: "Atten-

tion! This is a Loma Linda K-9 team. If anyone is in the area, come out and make yourself known or we will send a patrol dog to find you. He may bite you." He commands Ki to bark. Ki's attention is on the search area; he's tense, ready. Then Ki pulls at his leash, running, sniffing the air, the ground, a doorway. He alerts when he identifies human scent coming from a dumpster. The suspect raises the lid of the dumpster, his hands in the air. Next, Sergeant Welch and Cam take their turns.

"It's a game for the dogs," says Lieutenant John Marshall. "They're not vicious." Sergeant Welch agrees. "As a reward for completing the task," he says, "we give them their favorite toy and they know the exercise is over." Lieutenant Marshall recently was named interim director, Loma Linda University Health security, when Suzy Douma retired.

It's dark as the teams continue training, locating and apprehending two prowlers

in an abandoned building. Later, the dogs jump inside a pickup truck on command, holding the suspect's arm in their mouth, until the suspect gives himself up.

The officers train four hours every week, sometimes in pouring rain, with the partnership benefiting local cities and Loma Linda University Health. "Our K-9 units are on call 24 hours a day, both for our campus and if needed, neighboring cities," says Lieutenant Marshall. "When police dogs are out because of an injury our officers are available to fill in. During training, our officers learn new skills and techniques."

According to Sergeant Welch, Loma Linda University Health security officers are not armed. Their German shepherd and Belgian Malinois partners provide an extra element of security as they respond to calls, including alarms. "The dogs do the work of six people," says Sergeant Welch. "They make it easier for us to make sure that the buildings are secure—they walk

Loma Linda University Health K-9 unit staff (pictured, from left): Corporal Dwayne Symonett, interim security department director Lieutenant John Marshall, and Sergeant Doug Welch, with their four-legged partners: Ki, Cam, and Chase.





the circumference of the building and using their sense of smell, alert if anyone has broken into the building.”

According to Lieutenant Marshall, Loma Linda University Health began assigning patrol dogs to officers in the late 1970s. The dogs are certified and go through the same training as police dogs used in state and federal agencies. An iconic part of the campus, Cam, Chase, and Ki and their handlers greet thousands of visi-

tors from toddlers to seniors.

The dogs are so good-natured that children often ask to pet them. Lieutenant Marshall recalls one instance when a young patient, who hadn’t spoken since brain surgery, petted Chase and greeted him as he jumped on her bed.

“Everyone was in tears,” he remembers. “It was a thrilling moment for her family, and for Children’s Hospital staff.” ✦

✦ Sergeant Welch prepares to send in a K-9 dog to search the premises.

↑ Loma Linda University Health K-9 officers are on call 24 hours a day to assist local law enforcement agencies. In a K-9 training scenario night has fallen; two suspects have taken refuge in a building in the San Bernardino City yard. Sergeant Doug Welch (left) and Corporal Dwayne Symonett (far right) observe while awaiting their turn to participate.



A pediatric patient in LLU Children’s Hospital enjoys a visit from Cam, K-9 partner for Lieutenant John Marshall.



U.S. News & World Report recognizes excellence at LLU Medical Center

By Herbert Atienza

The department of gynecology at Loma Linda University Medical Center ranks in the top 50 among all such specialty programs in the country, according to *U.S. News & World Report's* annual survey of approximately 5,000 U.S. hospitals.

LLU Medical Center also ranked, for the fourth consecutive year, at No. 1 out of 44 hospitals surveyed in the Inland Empire. Among hospitals statewide, the Medical Center moved up to No. 13 from last year's position of 18.

The annual *U.S. News Best Hospitals* rankings, now in their 24th year, recognize hospitals that excel in treating the most challenging patients.

CEO Ruthita Fike, MA, says "These

honors are very much valued by our organization because they reflect the commitment, hard work, and clinical expertise of thousands of physicians, nurses, and staff, all dedicated to upholding our mission of 'continuing the teaching and healing ministry of Jesus Christ.'"

Only about 15 percent of hospitals are recognized for their high performance as among their region's best. Just 3 percent of all hospitals earn a national ranking in any of the 16 considered specialties, according to Avery Comarow, *U.S. News* health rankings editor.

"We are deeply honored to be nationally ranked for the provision of high-quality gynecologic care," says Ron Swensen, MD, chair of the department of gynecology and obstetrics.

"This reflects the expertise of the entire team: doctors, nurses and ancillary personnel, all working toward a superior patient experience," he adds. "We thank our patients for their trust in us."

Aside from giving gynecology national ranking, *U.S. News* cited the following "high performing" specialties at Loma Linda: cancer; cardiology and heart surgery; diabetes and endocrinology; ear, nose and throat; gastroenterology and GI surgery; geriatrics; nephrology; orthopedics; pulmonology; and urology.

The rankings have been published at <http://health.usnews.com/best-hospitals> and will appear in print in the *U.S. News Best Hospitals 2014 Guidebook*. ☩

Ranked No. 1 in Region

Women's Cancer & Surgical Oncology Center helps women cope with every aspect of cancer treatment

By Larry Kidder

The benefits of the new Women's Cancer & Surgical Oncology Center, located just across from the Loma Linda University Cancer Center in Schuman Pavilion, are many, but two in particular stand out.

For patients, the concept of one-stop treatment and a multidisciplinary team managing their case is unbeatable. For the team, the process of interacting across many disciplines to form a consensus for care is equally valuable.

"We've done everything we can to remove as many barriers for our patients as possible," explains Judy Chatigny, MSN, executive director of LLU Cancer Center. "It's difficult enough that they've received such a devastating diagnosis. We help them navigate the waters of cancer treatment."

When a woman becomes a patient at the center, her interdisciplinary team includes a navigator—an individual whose only role is to help coordinate her care, educate her about her treatment plan, and address obstacles along the way.

"Our navigators are there to serve our patients," Ms. Chatigny continues. "They work on the details—they know how to help overcome the roadblocks and relieve the stress and anxiety so many of our patients experience."

The interdisciplinary team literally works side by side, sitting around a table



in a room intentionally designed for that purpose, as well as occupying offices that are adjacent to each other. In addition to medical, surgical and radiation oncologists, nurses, and other clinicians, teams typically include a psychologist, social worker, nutritionist, and appearance consultant.

"Our patients are more than a diagnosis," Ms. Chatigny insists. "In order to restore them to health, we address all of their needs."

The Appearance Center is a vital component of the Women's Cancer Center. Complimentary wigs, scarves, turbans, and other accessories are provided to patients.

"Through the generosity of a number of organizations—including some area churches—we are able to provide our pa-

tients with wigs and other accessories to aid them in dealing with hair loss," Ms. Chatigny says. "We also help them with skin care and other ways to help manage treatment side effects and look their best."

The Resource Center enables patients and families to learn as much as possible about their cancer, as well as how best to deal with the effects of their treatment.

The planners and designers of the Women's Cancer Center have gone out of their way to make the entire LLU Cancer Center area patient-friendly and inviting. Taking the elevator down one floor, patients and their families will know they have arrived at a destination, designed in every aspect to put them at ease and make their cancer treatment as convenient and stress-free as possible. ☼



↑ Hand-blown and colored glass art pieces adorn the walls of the new LLU Women's Cancer & Surgical Oncology Center. In addition to the artistic accents and designs, the center is warm and welcoming to patients and their families.

← Tamie Vasquez, coordinator for the Cancer Resource Center, works with an individual to fit a wig. Generous individuals and organizations donate scarves, turbans, wigs, makeup, and other accessories to the Women's Cancer Center to help cancer patients feel attractive even when treatment has affected their appearance.

LLU Children's Hospital to benefit from \$2.5 million for pediatric MS research

By Briana Pastorino

The Pediatric Multiple Sclerosis Center at Loma Linda University Children's Hospital has been named one of three newly funded pediatric multiple sclerosis (MS) centers by the National Multiple Sclerosis Society.

The clinic will receive a three-year funding commitment of \$2.5 million for the Network of Pediatric MS Centers, which includes nine centers across the United States. The money allows the centers to facilitate research, including searching for the cause of MS, by studying risk factors for the disease in children close to the time of exposure.

Gregory Aaen, MD, director of the Pediatric Multiple Sclerosis Center, is thrilled that LLU Children's Hospital was recognized.

"This is a true testament to the care we provide to our MS patients," he says. "The most common questions I get from my

patients and their families are 'why did my child get MS?' and 'what can we expect in the future?'

"With this funding, we are hoping to be able to provide more answers," he explains. "This grant will further support research projects of the Pediatric MS Center at Loma Linda University Health with the hope of helping children with MS live longer, fuller, and very productive lives."

One Children's Hospital patient who is hoping for a cure one day is 16-year-old Chloe McCabe, who was diagnosed with MS just three years ago. "We were referred to Loma Linda after she had her first attack," says Chloe's mom, Cynthia. "We were in shock when we found out she had MS."

Chloe reports, however, that with the exception of occasional blurred vision or tingling in her arms and legs, she feels like any normal teenager. "Luckily with the help

of Dr. Aaen, I don't really have any symptoms of MS," she says.

Dr. Aaen is thankful for the National MS Society for putting LLU Children's Hospital on the map as a nationally recognized center. "When a child is suspected to have MS, we want the public to think of Loma Linda University Children's Hospital as a vital local resource."

Multiple sclerosis is more common in adults but affects 8,000 to 10,000 children in the United States, according to the National Multiple Sclerosis Society.

The inflammatory disease affects the nerve cells in the brain and spinal cord, disrupting parts of the nervous system and potentially affecting a person's physical and mental abilities. Visual, sensory, and motor problems are the most common symptoms of MS. [+](#)



"Luckily with the help of Dr. Aaen, I don't really have any symptoms of MS," Chloe says.

Sixteen-year-old Chloe McCabe visits the Pediatric MS Center for her routine check-up with Dr. Gregory Aaen on Tuesday, July 16. He is performing the Romberg test, which assesses her balance while her eyes are closed.

LOMA LINDA UNIVERSITY HEALTH

Loma Linda University Health innovates, reaches milestones, and receives accreditation in heart care

By Larry Kidder and Briana Pastorino

The summer of 2013 has been marked by innovation, milestones, and program accreditations for members of the Loma Linda University Health family.

In June, Loma Linda University Medical Center became the first in the nation to use the LVAD HeartMate II for a patient with only one lung.

Designed by Thoratec—headquartered in Pleasanton, California—the HeartMate II improves survival and quality of life for patients who need assistance with left ventricular function.

Also in June, heart surgeons at LLUMC–Murrieta performed their 100th open-heart surgery.

The hospital, which serves Murrieta and surrounding communities, became a licensed provider of interventional cardiology at the same time it opened its doors back in April of 2012. To date, more than 120 open-heart procedures have been performed there.

In August, LLUMC–Murrieta earned

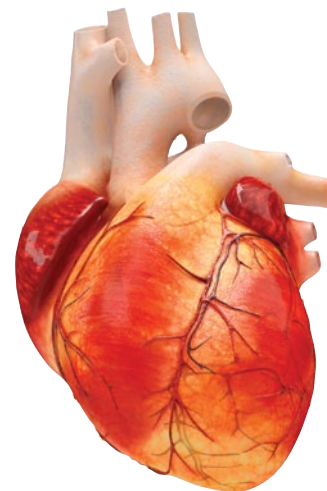
accreditation as a STEMI receiving center from Riverside County Emergency Medical Services Agency—the first and only hospital in the Murrieta area with a designation of this kind.

According to LLUMC–Murrieta CEO Richard Rawson, MBA, the STEMI accreditation will likely result in 20 to 30 additional cardiac transports each month. “Obtaining accreditation as a STEMI receiving center is a vital step for our growth as a cardiac provider,” says Mr. Rawson.

STEMI stands for ST-segment Elevated Myocardial Infarction and represents the most deadly form of heart attack.

The condition results from partial interruption of blood supply to a part of the heart muscle, damaging heart cells. The resulting oxygen shortage can cause the heart muscle to die.

Patients experiencing a STEMI are at risk for developing sudden cardiac arrest and need to be transported immediately to a facility that provides interventional care, stents, angioplasty, or even open-heart surgery.



“Simply stated, this means more lives saved in the Murrieta Valley,” attests Fire Chief Matt Shobert, Murrieta Fire Department. “We congratulate Loma Linda University Medical Center–Murrieta for this important milestone and are delighted to have been working with them. We look forward to an ongoing partnership with the hospital to continue saving lives in our community.”



Sanjay Bjohrah, MD, medical director, LLU International Heart Institute, speaks during a press conference at LLUMC–Murrieta on August 28 announcing the STEMI accreditation. With him is Kathryn Stiles, director of marketing and communications.



Surgeons Alfredo Rasi, MD (left), and Nahid Hasaniya, MD, PhD, celebrate LLUMC–Murrieta's milestone with a cake.



Biospecimen laboratory helps bring more predictability to cancer treatment

By Larry Kidder

Oncologists at the Loma Linda University Cancer Center now have an additional weapon at their disposal in the quest to better understand and defeat cancer.

Now in its third year, the LLU Cancer Center Biospecimen Laboratory allows

oncologists to compare thousands of tissue samples collected over the past three years with the outcomes for the patients who donated them. Cancer Center leaders believe the lab will help improve cancer treatment in the future.

A major gift of \$1.5 million by San Manuel Band of Serrano Mission Indians

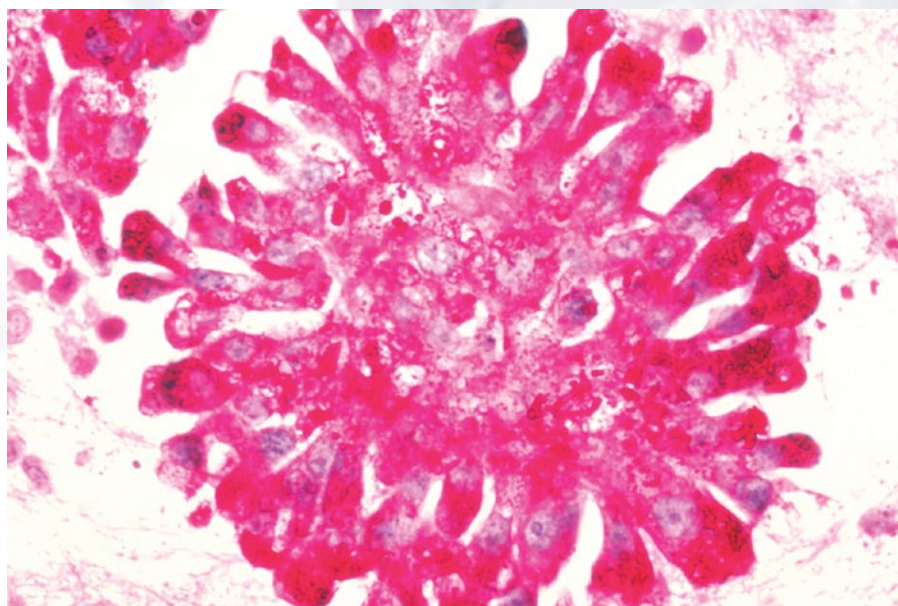
provided funding for building out the laboratory space. The San Manuel Band also donated \$1.5 million toward the medical oncology center, bringing their total gift to \$3 million.

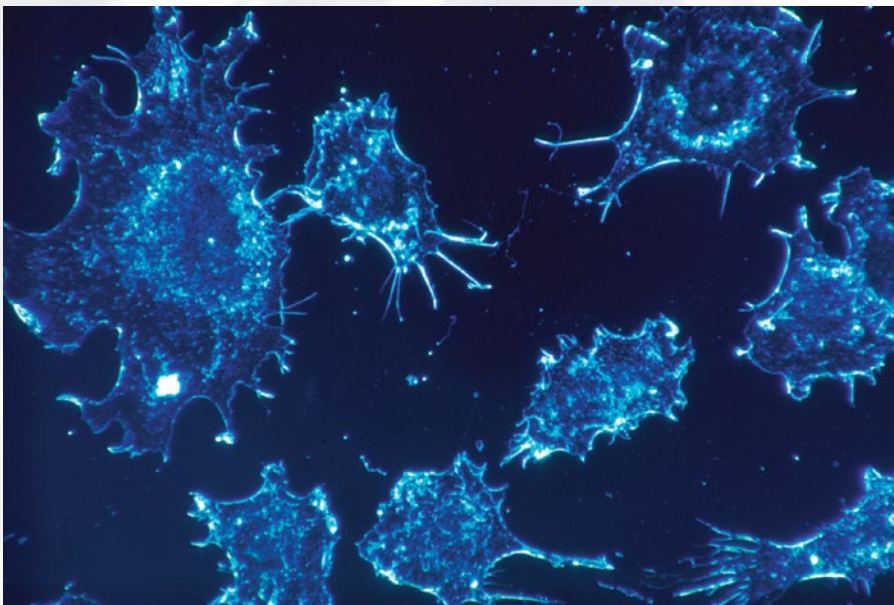
“These tissues would normally be discarded following surgery,” explains Mark Reeves, MD, PhD, director of the LLU Cancer Center. “Patients give their written consent for the tissues to be saved and frozen in liquid nitrogen, preserving them for later examination.”

The collection of tissue samples is nothing new. However, these samples were previously preserved in formaldehyde and other fluids. The nucleic materials—DNA and RNA in particular—were

↑ Saied Mirshahidi, PhD, research scientist in the biospecimen laboratory, readies a specimen and special kit for delivery to the pathologist, where the specimen will be read, then quickly frozen, limiting exposure and degradation of the tissue.

← Brilliantly stained cancer cells take on artistic and abstract forms.





degraded and unstable.

“We now have freezers full of specimens frozen with liquid nitrogen,” Dr. Reeves reports, “preserving the proteins and nucleic acids for long periods of time.”

The biospecimen laboratory is unique worldwide for three primary reasons: first, the laboratory represents a long-term institution-wide commitment. Many other biobanks exist, but most are typically connected with specific research. When the research concludes, the biobank goes away.

Second, careful standard operating procedures are followed for all tissue samples. Tumors and surrounding normal tissues are collected, brought to the biospecimen lab and labeled, taken to the pathologist to read, and then immediately frozen in liquid nitrogen. At that point, they are returned to the biospecimen lab and placed in nitrogen freezers.

Third, careful electronic records are maintained, linking the tissue to a patient whose future progress is followed and documented, increasing the predictability of success for others down the road and allowing oncologists to personalize treatment.

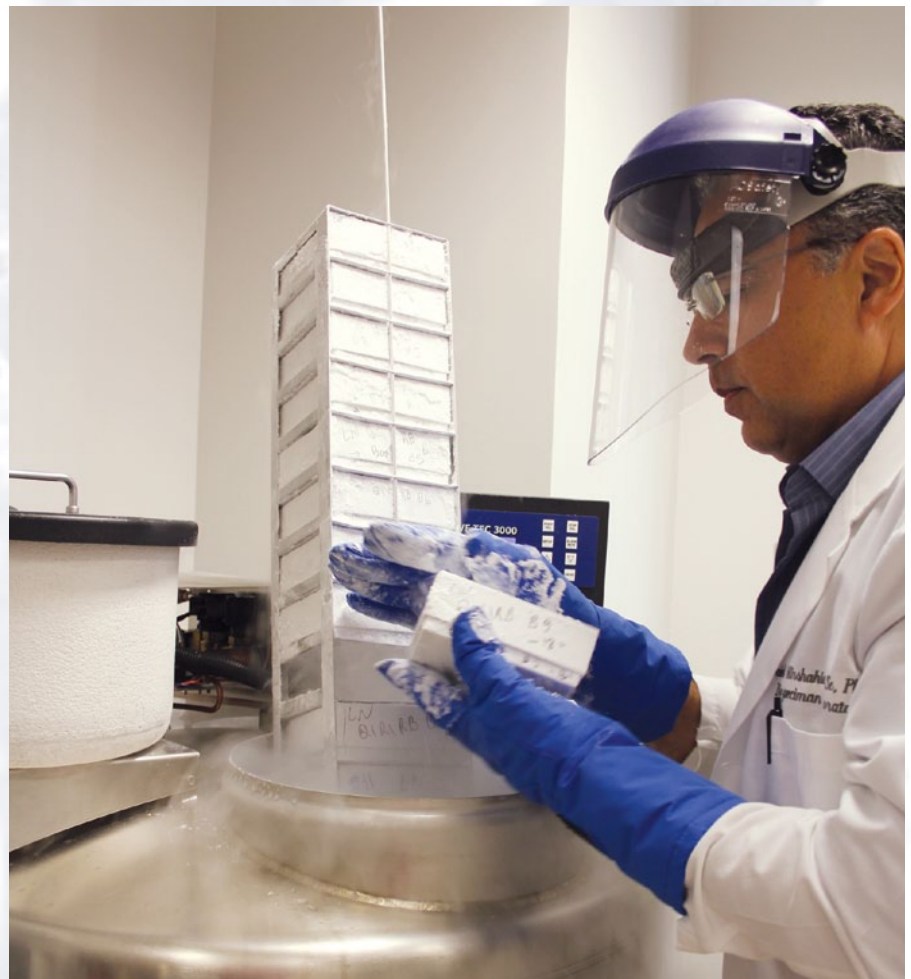
“Each tumor is different,” Dr. Reeves explains. “For instance, colon cancer cells are different from cancer to cancer, from

patient to patient.”

He continues, “By studying the actual tumor cells—down to the molecular level—we are better able to predict a tumor’s characteristics and level of aggressiveness, as well as what treatments will actually impact it.”

The donation of their tissues by cancer patients provides no real personal benefit to the donor. “Once we’ve treated our patients for their cancer, we hope we don’t see them very much in the future, aside from routine check-ups to be sure they remain cancer-free,” Dr. Reeves points out. “By donating their tissues, they are helping future cancer patients receive more effective and personalized treatment.”

Dr. Reeves is quick to add that the donation of cancer tissue could prove useful for an individual if his or her cancer returns. However, for most, there is no personal benefit to donation. He shares, “Our patients are happy to ‘pay it forward’ for those who will follow.” ☩



Dr. Mirshahidi removes a specimen container from the liquid nitrogen, preparing to add a new specimen to one of the boxes. The specimens—including all of the proteins and nucleic materials—are preserved indefinitely.

Newly accredited bariatric surgery programs help patients restore their health

By Larry Kidder, Herbert Atienza, and Briana Pastorino

Individuals battling obesity in the Inland Empire and Murrieta areas now have an option for bariatric surgery at Loma Linda University Health facilities.

Both Loma Linda University Medical Center and Loma Linda University Medical Center–Murrieta have recently received accreditation for their bariatric surgery programs.

In mid-July, LLUMC–Murrieta learned its bariatric surgery program had been granted full approval as an ACS Level 2 accredited bariatric center by the American College of Surgeons.

“We’re very pleased to reach this important milestone so early in our growth as a hospital,” says LLUMC–Murrieta CEO Richard Rawson, MBA. The hospital opened its door on April 15, 2011.

Loma Linda University Health metabolic and bariatric surgery team members, pictured here in front of LLU Heart & Surgical Hospital, are committed to providing the best care for their patients’ health and well-being. The program recently received accreditation as a Level 2 center by the American College of Surgeons.

“Weight loss surgery is an important service that we believe helps us fulfill our mission to ‘continue the teaching and healing ministry of Jesus Christ.’”

Mr. Rawson continues, “Patients who receive this lifesaving procedure can see their diabetes reversed, and their risk of heart disease and cancer dramatically decline.”

More recently, team members of the LLUMC metabolic and bariatric surgery center learned their program had also received ACS Level 2 accreditation. In addition, the LLUMC program, headquartered at LLU Heart & Surgical Hospital, received designation as a Bariatric Surgery Center Network accredited program because it demonstrates a “commitment to delivering the highest quality care for its bariatric surgery patients.”

“Receiving ACS accreditation is a reflection of the quality outcomes and patient care provided by our bariatric surgery team at LLUMC,” shares LLUMC CEO Ruthita Fike, MA. “Weight loss surgery is a vital procedure to offer our community as we lead the way in health and wellness.”

Patients at LLUMC–Murrieta have the treatment options of sleeve gastrectomy,



This model illustrates gastric banding, a process where the capacity of the stomach to hold food is reduced.

gastric banding, or gastric bypass surgeries. At LLUMC, patients have these options of adjustable banding as well as laparoscopic bypass, robotic-assisted laparoscopic gastric bypass, laparoscopic gastric sleeve surgery, and minimally invasive and endoluminal revision surgery.

Approximately 15 million people suffer from severe obesity in the U.S., and the number continues to rise. Obesity increases the risks for illness and death, and it is commonly associated with chronic diseases such as Type 2 diabetes, hypertension, and heart disease. ☩



School of Pharmacy alumnus leads new pediatric pharmacy residency program

By Stephen Vodhanel

A brand-new pediatric pharmacy residency program, only the third such program in the state of California, began in July 2013. The new residency program was made possible through a \$20,000 grant from Cardinal Health.

Leading the new residency program is Nancy Chang, PharmD, a 2006 graduate of the Loma Linda University School of Pharmacy.

Participation in the new residency program takes place during the second post-graduate year (PGY2) for pharmacy students and is centered at Loma Linda University Children's Hospital.

Efforts to establish a PGY2 pediatric residency were the brainchild of the dean of the School of Pharmacy, Billy Hughes, PhD, as well as Paul Norris, PharmD, and Norm Hamada, PharmD, of LLU Medical Center.

The new pediatric residency program was promoted during the California Society of Health-System Pharmacists seminar, held in Las Vegas in the fall of 2012, as well as the American Society of Health-System Pharmacists midyear meetings, also in Las Vegas in December of 2012.

Adding a PGY2 pediatric residency program was the natural next step for the School of Pharmacy. Drs. Norris and Hamada have been maturing the level of pharmacy services in both the pediatric intensive care unit (PICU) and the neonatal intensive care unit (NICU), and for several years pharmacy students have

been completing clinical rotations in these specialties. Bill Brown, PharmD, has already been providing pediatric oncology pharmacy services at LLU Children's Hospital for more than 10 years.

As a member of the inaugural School of Pharmacy class of 2006, Dr. Chang was chosen as director for the PGY2 pediatric residency program for a variety of reasons. First and foremost, she experienced pediatric pharmacy as a resident pharmacist as well as a clinical pharmacist at LLUMC.

Dr. Chang has served as a clinical pharmacist at LLU Children's Hospital, specializing in the PICU. She also has vast experience working together with a large multidisciplinary team, drawing upon the skills and knowledge of a variety of health care professionals throughout LLUMC.

For Dr. Chang, the role of director of the pediatric residency is both challenging and rewarding. "We need to always work toward being part of a multidisciplinary team that values pharmacists managing the drug treatment for our patients," she says. "And it is so very rewarding to see the kids transfer out of the PICU and then become well enough to be discharged home."

Accepting the position as director of the pediatric residency also comes with great responsibilities. "The most challenging aspect of being the director at this time is taking on the big roles of establishing a new program," she continues. "We must

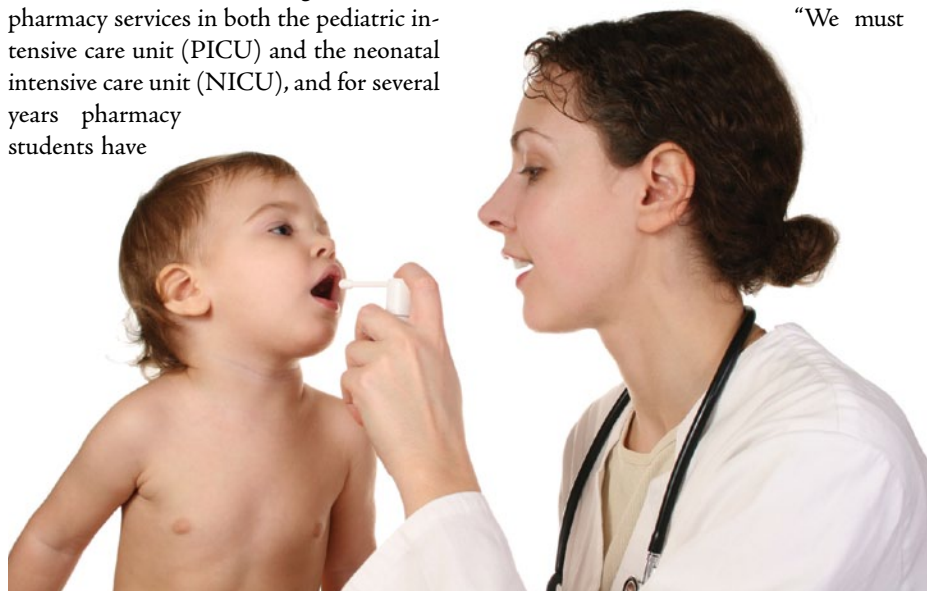


Nancy Chang, PharmD, a 2006 graduate of the LLU School of Pharmacy, will head up the new pediatric residency program for PharmD students in their second post-graduate year (PGY2). The new residency program was made possible through a \$20,000 grant from Cardinal Health.

explore new areas where pharmacists can be effectively involved in the multidisciplinary medical team dealing with patient care."

She predicts, "It will be important to provide opportunities for our resident pharmacists to network professionally across the Medical Center in a manner that emphasizes quality care. We have to do this and much more, while all the time staying focused on the mission of the Medical Center and the lives of the people we serve."

LLU Children's Hospital has pharmacy specialists in the NICU, PICU, cardiac transplant, and pediatric hematology/oncology areas. Pediatric pharmacy residents can expect to work closely with experienced pharmacists and other health care professionals within these pediatric specialty areas, as well as with a variety of specialties both in the inpatient and outpatient care settings. ☪





LIVE IT

Study attracts international attention, demonstrating vegetarians enjoy longevity advantage

By James Ponder

The Adventist Health Study at Loma Linda University recently attracted a flurry of international media attention after an article in *JAMA Internal Medicine*, a publication of the American Medical Association, reported a link between vegetarian nutrition and increased longevity.

According to Michael J. Orlich, MD, a researcher at Loma Linda University School of Public Health and lead author of the article, the findings confirm the potential advantages of vegetarian nutrition.

The study, which evaluated dietary habits and mortality patterns among 73,308 members of the Seventh-day Adventist Church in the United States and Canada, found that vegetarians experienced 12 percent fewer deaths during the six-year course of the investigation than their peers who ate meat.

The story generated an international media buzz. Within two weeks, it was published in 86 media outlets including *TIME.com*, *Wall Street Journal*, *Reuters*, *Bloomberg News*, *Yahoo! News*, and the *Daily Express* of London, England.

Adventists were selected for the NIH-funded study because the Church has historically placed a high emphasis on vegetarianism. However, not all members are vegetarians.

In fact, 35,358 of the study participants regularly ate meat and another 4,031 ate meat, poultry, and fish on an infrequent basis. Together, the two meat-eating groups represented approximately 54 percent of study participants.

Vegetarians were divided into three categories: 5,548 were vegans who ate only plant-based foods; 21,177 were lacto-ovo vegetarians who supplemented their vegetarian diet with dairy products and eggs; and 7,194 were pesco-vegetarians who ate fish, but no other meats. Together, the three vegetarian groups represent approximately 46 percent of study participants.

According to Gary Fraser, MD, PhD, director of the Adventist Health Study and professor at the LLU Schools of Medicine and Public Health, similar studies are being conducted at Oxford University, Harvard University, University of Southern California, and Vanderbilt University.

"The Adventist Health Study-2 is one of the largest long-term, multi-decadal studies currently underway examining the interface between dietary patterns and various types of disease processes," Dr. Fraser reports.

In 2011, the study received its tenth

major award, a \$5 million grant from the National Institutes of Health's National Cancer Institute. The funding will support the continuing exploration of the relationship between dietary habits and incidence of cancer among various populations of Seventh-day Adventists for five more years.

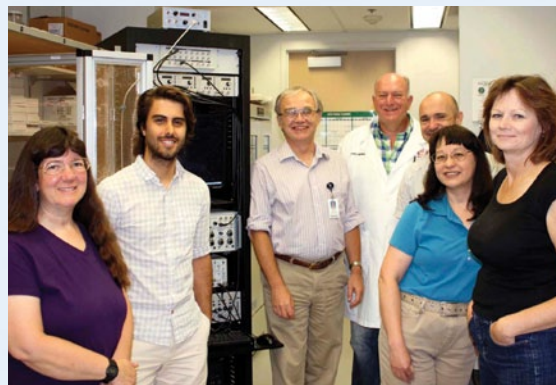
The Adventist Health Study (AHS) has been gathering long-term, or longitudinal, data on the dietary and lifestyle habits and health status and outcomes of Adventists in the United States and Canada since 1974. Dr. Fraser says individuals who share their personal health information with AHS researchers are crucial to its success. He urges study participants to update their contact information with AHS researchers every two years. ✦

Michael J. Orlich, MD, a researcher with Loma Linda University School of Public Health, says findings of the Adventist Health Study confirm an important benefit of vegetarian nutrition: increased longevity.



LOMA LINDA UNIVERSITY HEALTH

NASA grants launch medical research far into space



By James Ponder

A group of earthbound scientists in the radiation medicine lab at Loma Linda University School of Medicine spends most of its time in outer space.

Not literally, of course. There isn't a spacesuit among them but thanks to a long-running series of tests funded by the National Aeronautics and Space Administration, members of the team are metaphorically in space every day.

"The purpose of the NASA grants is to determine the health risks to astronauts on long-term space missions," explains Gregory Nelson, PhD, professor of basic sciences and radiation medicine at the school.

"An unavoidable complication of space travel is exposure to proton and high-charge, high-energy particle radiation," notes Roman Vlkolinsky, PhD, assistant research professor. Dr. Vlkolinsky adds that cosmic rays trigger oxidative stress, neuroinflammation, and synaptic changes in the central nervous system similar to the effects of Alzheimer's disease.

NASA established cooperative research activities with Loma Linda University Medical Center in the early 1990s and has been conducting or sponsoring research on campus ever since. The center was selected because it is one of the few sites in the world with a proton synchrotron, which can be used to simulate the types of radiation found in space.

"Currently, there are four NASA stud-

ies within the department of basic sciences," Dr. Nelson reports. Two of the four studies are scheduled to end in 2014. The other two will conclude in 2016. Together, they are valued at more than \$10 million.

The titles of the four studies suggest they might not be intended for casual reading:

- ☆ "Functional decline in mice with Alzheimer's-type neurodegeneration is accelerated by charged-particle radiation;"
- ☆ "Charged particle radiation and resultant oxidative stress elicit deleterious functional changes in the central nervous system;"
- ☆ "Role of oxidative stress in mediating the effects of combined exposure to simulated microgravity and radiation on neurovascular remodeling in mice;" and
- ☆ "Impact of spaceflight on primary and secondary antibody responses."

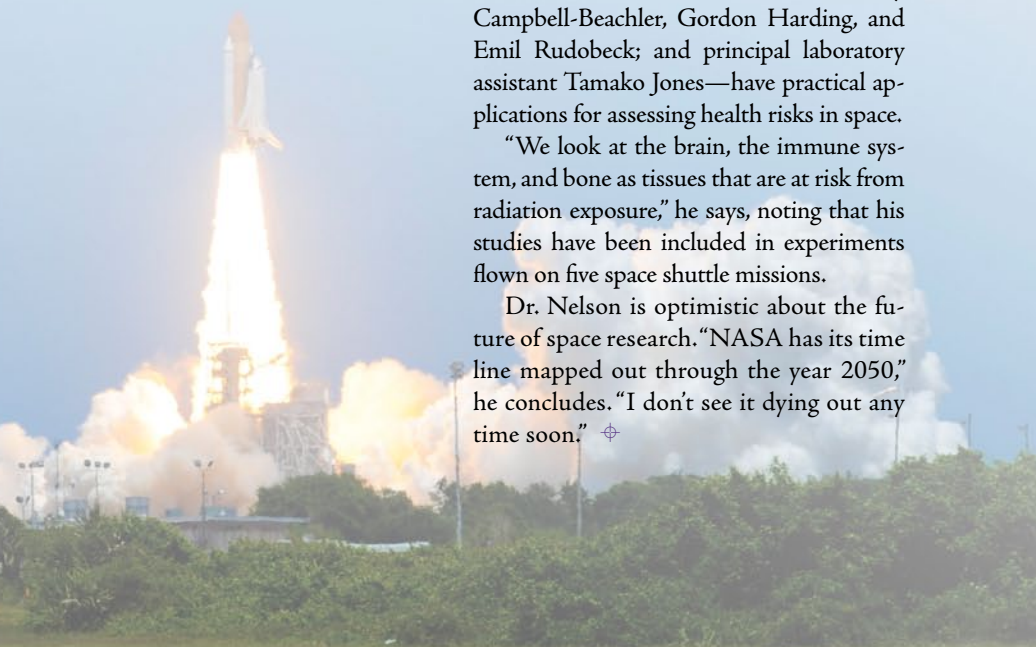
Space researchers at LLU School of Medicine (from left): Mary Campbell-Beachler, research assistant; Emil Rudobeck, research assistant; Gregory Nelson, PhD, professor of basic sciences and radiation medicine; Gordon Harding, research assistant; Roman Vlkolinsky, PhD, assistant professor of basic sciences and radiation medicine; Tamako Jones, principal laboratory assistant; and Irina Sokolova, PhD, postdoctoral fellow in basic sciences.

Dr. Vlkolinsky is principal investigator for the first study; Dr. Nelson for the second; and "Vivien" Xiao Mao, MD, assistant research professor, and Michael Pecaut, PhD, associate research professor, for the third and fourth studies, respectively.

Dr. Nelson maintains that the studies he and Dr. Vlkolinsky are conducting with their colleagues—postdoctoral fellow Irina Sokolova, PhD; research assistants Mary Campbell-Beachler, Gordon Harding, and Emil Rudobeck; and principal laboratory assistant Tamako Jones—have practical applications for assessing health risks in space.

"We look at the brain, the immune system, and bone as tissues that are at risk from radiation exposure," he says, noting that his studies have been included in experiments flown on five space shuttle missions.

Dr. Nelson is optimistic about the future of space research. "NASA has its time line mapped out through the year 2050," he concludes. "I don't see it dying out any time soon." ☉



LLU neuroscientist awarded \$1.9 million NIH grant to develop new lifesaving treatment for deadly form of stroke

By James Ponder

ALoma Linda University School of Medicine researcher recently received a \$1.9 million grant from the National Institutes of Health to develop a new lifesaving treatment for a deadly form of stroke.

It is the second NIH five-year grant received by John H. Zhang, MD, PhD, professor of neuroscience and physiology, to study subarachnoid hemorrhage, or bleeding between membranes of the brain.

“Women get it more often than men,” he says, “at a ratio of about two to one in many countries, most often in the range of 20 to 50 years of age.”

Caused by an aneurysm, or ruptured blood vessel, subarachnoid hemorrhage—which accounts for 20 percent of stroke cases—is deadlier than ischemic stroke. Approximately 15 percent of people who experience it die before reaching the hospital. Another 50 percent die within 30 days. By comparison, 10 percent of people with ischemic stroke die.

“The main symptom is extreme headache,” Dr. Zhang notes.

Current treatments do little to prevent post-occurrence injury.

The first, or conservative, treatment is

prescribed when age or health concerns preclude surgery. Doctors merely stabilize the patient and monitor vital signs. It succeeds about half the time.

The second treatment presents two choices: clipping and coiling. “The first involves clipping off the neck of the aneurysm to prevent further bleeding,” he notes. “The second involves inserting a catheter into the patient’s brain and inserting small coils into the site of the aneurysm.”

A third alternative—opening the skull and inserting a needle loaded with the human gene protein Osteopontin—is rarely used.

In their earlier study, Dr. Zhang and associates discovered a fourth option, a pre-clinical procedure for administering Osteopontin to the brain via a nasal spray. Aside from being more effective, it is also non-invasive and painless.

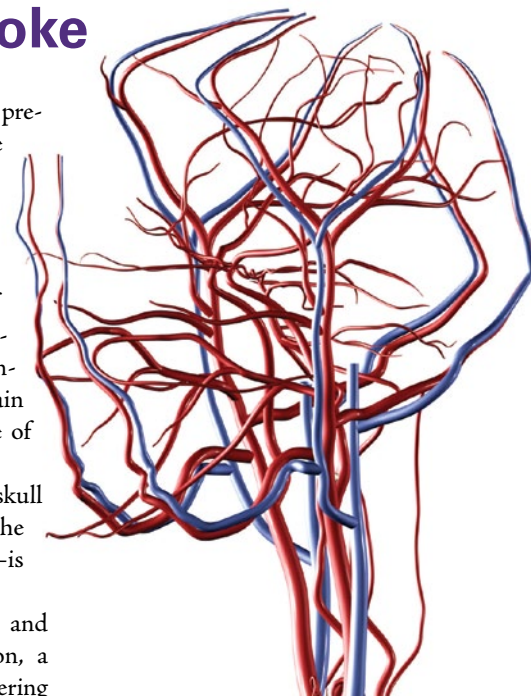
“In experimental models, it was found to reduce cell death, protect the blood-brain barrier, reduce brain edema, and improve neurological functions,” he reports.

This second study will refine the method of delivering Osteopontin via a nasal spray.

“Although the nasal admission of Osteopontin has been used for other conditions, we are the first to propose that it be employed as a treatment for subarachnoid hemorrhage,” Dr. Zhang notes. “With the nasal application, we can bypass the blood-brain barrier and get straight into the brain.

← John Zhang, MD, PhD

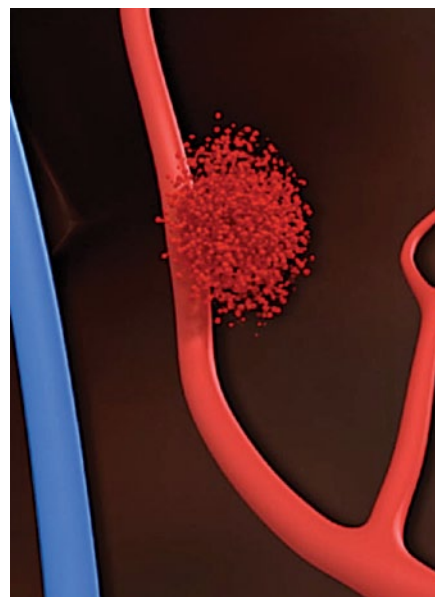
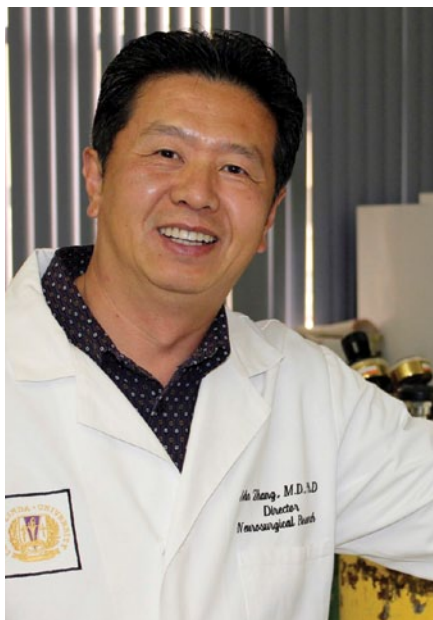
→ An illustration of a brain hemorrhage shows the failure of a blood vessel. Subsequent bleeding between the membranes or into the subarachnoid space is considered more lethal than an ischemic stroke, where a blocked blood vessel starves brain tissue of oxygen and other vital nutrients. © 2013 National Stroke Association. Content provided by permission of National Stroke Association. Please visit www.stroke.org for stroke education resources.



Vascular system for the human brain

It will be absorbed into the frontal lobe, and from there, into the cerebrospinal fluid to protect the brain.”

Hopefully, the result will be a rapidly adaptable protocol. “We’re trying to be as translational as possible,” he concludes, referring to research that moves rapidly from the laboratory to clinical applications. ✦



Proton clinical trials search for better health for people with cancer

By James Ponder

Proton clinical trials are integral to the search for promising new cancer treatments at the James M. Slater, MD Proton Treatment and Research Center at Loma Linda University Medical Center.

According to Jerry Slater, MD, director of clinical affairs, the trials—research studies involving human participants eager to help scientists discover new treatments or improve existing ones—began within two years of the center’s 1990 opening. Dr. Slater says the center currently hosts between three to ten trials at any given time, focusing on breast, esophageal, head and neck, liver, lung, pancreatic, prostate, and sarcomatous cancer.

An early proton trial for prostate cancer conducted by the James M. Slater, MD Proton Treatment and Research Center along with Massachusetts General Hospital established the value of proton therapy.

“It was the first study to show that by increasing the dose in low- and intermediate-risk patients you can increase the bio-chemical disease-free survival rate,” Dr. Slater observes.

Buoyed by their success, researchers conducted another trial to find out what side effects of proton treatment, if any, might impact patients’ quality of life.

“We found there is no decrease in quality of life with proton therapy,” he notes. “These two studies validated the idea that increasing proton doses to the patient improves disease-free survival without a hike in side effects.”

Center researchers are currently investigating whether treatment times can be safely reduced for patients with breast, head and neck, liver, lung, and prostate cancer.

“We’re reducing treatment times from five to nine weeks down to two to four weeks,” he reports.

One benefit of proton treatment is its ability to target diseased areas while avoiding surrounding healthy tissues and organs.

“Preliminary results appear to show that with early-stage lung cancer, we can treat the lesion with proton in just two weeks with no increase in side effects,” he says. “We’re also finding that early-stage breast cancer can be successfully treated in two weeks.”

That’s good news: treatment will take less time and patients will encounter fewer side effects than with conventional radiation therapy. “In the treatment of early-stage lung cancer, conventional radiation treatments usually diminish breathing,” he notes, “but our studies have shown that protons do not.”

“These trials are needed to show the role and efficacy of proton therapy in cancer treatment,” Dr. Slater concludes. “They’ve never been done anywhere before. Because of our results, most major academic centers in this country are following the lead of Loma Linda University Medical Center in offering proton treatment to their patients.” ✦



↑ Jerry Slater, MD, director of clinical affairs for the James M. Slater, MD Proton Treatment and Research Center at Loma Linda University Medical Center, says clinical trials conducted by members of the staff establish the value of proton therapy in treating a variety of cancers.

↓ A patient receives proton radiation in one of the treatment gantries.



New academic programs expand options for students

By Heather Reifsnnyder

Loma Linda University draws students from across the nation and more than 80 countries. More than 4,000 of them attend LLU every year. Several new degrees have recently been added to their options for study in the Schools of Religion, Nursing, and Allied Health Professions.

Master of science in orthotics and prosthetics

The first group of 18 students in the newest academic program in the School of Allied Health Professions—an entry-level master of science degree in orthotics and prosthetics—will graduate in June 2014.

Hans Schaepper, MDiv, program director and board-certified prosthetist-orthotist, created and instituted the program, which began in 2011.

The School of Allied Health Professions began offering a post-professional master's degree in orthotics and prosthetics in 2007, which allows practicing ortho-prosthetists with a bachelor's degree and a certificate in the field to advance their training to a graduate level.

Since January 2012, the National Commission on Orthotics and Prosthetics Education is no longer accrediting new bachelor's or certificate programs—meaning that

all future ortho-prosthetists must complete a master's degree and residency, as well as pass the American national board exam in order to practice independently. Some states require their own licensure, as well.

The 10-quarter entry-level master's degree is LLU's solution for those newly entering the profession.

LLU is one of 13 institutions offering master's training in orthotics and prosthetics, and one of only two that accommodates students who have yet to earn a bachelor's degree. Once prerequisites are completed, a student can enter the program and leave with both a bachelor's and master's degree.

Students who choose Loma Linda University for their education in orthotics and prosthetics will be earning a degree that not only gives them biomechanical interventional skills, but a degree that helps them understand the psychosocial aspect of treating patients with rehabilitation needs.

“Our focus is on creating a culture of service through our students and graduates,” says Mr. Schaepper. “They will provide state-of-the-art care in harmony with the needs of their patients, whilst understanding how to successfully function within the present health care delivery systems.”

Master of science in chaplaincy

As the profession of chaplaincy has evolved during the past few years, Loma Linda University has ensured that it continues to train students to current stan-

dards by developing a new MS degree for chaplains in the School of Religion. This degree replaces the MA in clinical ministry.

“This program is the first of its kind in North America,” says Jon Paulien, PhD, dean of the School of Religion. “It is also unique in that it involves significant clinical training in the art of patient care—something that in the past has had to be learned on the job.”

The first cohort of 10 students will graduate in 2014.

“Their level of engagement and reflection is very promising as we look to their future careers in chaplaincy,” says Siroj Sorajjakool, PhD, program director and creator.

Unlike degrees such as a master of divinity or a master of art in religion, this MS program gives students a direct path into a chaplaincy career at the associate level.

“Loma Linda University Health is one of the few places in North America where all the health care disciplines are found on one campus,” Dr. Paulien says. “So we have a unique opportunity to provide training in health care teamwork. Chaplains are an increasingly important part of the health care team.”

While the degree takes Adventist mission seriously, it is open to and inclusive of students of other Christian traditions.

Chaplains who want to advance to full board-certified status will be able to do so through the new doctor of science in religion and health degree, in addition to required work experience and endorsement from their faith group.



Doctor of science in religion and health

While the new DSc degree was initially crafted to help associate chaplains or those with MDiv degrees seeking full board certification in chaplaincy, planners soon realized it can play a larger role in the emerging scholarly field of religion and health.

The degree is not only the School of Religion's first doctorate, but it is also the first doctoral degree in religion and health nationwide. The Board of Trustees approved it in August of this year.

"The integration of faith and health provides the foundation for all education at Loma Linda University," says Carla Gober-Park, PhD, MS, MPH, program director. "This degree is a culmination of our belief that faith and health go hand in hand."

In addition to aspiring chaplains, others encouraged to enter the doctoral program include those with a master's degree in religion and theology or individuals with master's training in a health-related field.

Students may choose their concentrations in either an area of religion such as bioethics, or a health concentration in collaboration with other schools on campus.

Master of arts in religion and society

Another religion degree just approved by the Board in August is a master of arts in religion and society. This is an expansion of the master's program in religion and the sciences. The new degree will integrate the study of religion with other academic and professional specialties in order to equip laity for more effective service.

"The calling of Loma Linda University to help students who will not be clergy to

integrate their Christian views and values with their academic and professional lives is an abiding commitment," says David Larson, PhD, DMin, program director.

Like the MA in religion and the sciences, this new degree will continue to offer individual areas of emphasis, but it will also involve more students and faculty while providing additional individually personalized opportunities.

Students will be able to choose up to one-third of their classes from other LLU schools. The result will not be joint degrees but a single School of Religion degree that will integrate for each student the study of religion with his or her own academic or professional specialty.

"This new degree will respond positively to the many calls for more interdisciplinary collaboration in higher education, and it will do so in a way that embodies and expresses the university's commitment 'to make man whole,'" Dr. Larson says.

Doctor of nursing practice

This past June, the School of Nursing sent the first 12 graduates of the doctor of nursing practice degree into the work world. These graduates are prepared to serve in independent leadership roles in health care.

"Professionally," says Susan Lloyd, PhD, associate professor and director of the program, "DNP graduates transition to more advanced practice roles, such as directors of clinical services, education, or research."

The graduates of this MS to DNP degree are equipped to increase health access

and quality outcomes, as well as to decrease patient care costs. They have skills to work in interdisciplinary teams and improve or develop health care systems.

The program addresses and meets the American Association of Colleges of Nursing recommendation that advanced practice specialty areas be staffed by doctorally qualified nurses by 2015.

It is taught in a hybrid distance education format combining online learning with face-to-face meetings one week per quarter.

New graduate Joseph Hacinas was so eager to join the program that "I was the first to apply and the first person accepted." He completed the degree while working as a full-time Navy nurse in San Diego.

"My DNP degree," he says, "will allow me to be a strong voice and advocate for both patients and nurses. I will feel comfortable sharing. 'I'm a doctor, too—let's work together as a team to provide the best care for our patients.'"

During a visit from accreditors last year, "Site visitors stated they were very impressed with the program and had no recommendations for change. In fact, they stated they would take some of our ideas with them to present as suggestions for other schools," says Marilyn Herrmann, PhD, dean, School of Nursing. ✦



Fifty years of earth and biological sciences at Loma Linda University

By Nancy Yuen
and Heather Reifsnnyder

In April, the department of earth and biological sciences celebrated its 50th anniversary. The department dates to 1961 when biologists and basic science faculty in the School of Medicine proposed a doctoral program in biology.

It would prepare science teachers trained with a biblical world view for Adventist schools, develop a better understanding of the relationship between faith and science, and provide new avenues of research for basic science faculty.

Board approval for the department was granted in December 1961, and students began classes in 1962. The department's name was later changed from biology to earth and biological sciences.

Today, faculty research focuses on sea turtles, rattlesnakes and venoms, and a variety of geology and paleontology topics.

"LLU is the only place where a Christian can earn a doctorate in biology or geology, studying under faculty who accept the teachings of the Bible," says Leonard Brand, PhD, chair. "We're a creationist faculty; students learn our viewpoint as well as secular viewpoints."

To mark the anniversary, the department hosted field trips, a wild animal vespers, and discussions on both creation and environmental stewardship.

Guests attending the "Entrusted: Chris-

tians and environmental care" symposium paused to meet Zorro, a black leopard, and hold a brightly colored Amazon parrot while friends captured their enchantment on camera.

The two-day symposium was sponsored by the department of earth and biological sciences and LLU Center for Biodiversity and Conservation Studies.

"To draw a wider audience we felt it was appropriate to invite external speakers," says William K. Hayes, PhD, professor of biology. "We wanted a treatise of what the Bible has to say about creation care, and no one is better suited for that than Jo Ann Davidson at Andrews University."

He continues, "We knew of a geologist in Colorado, Steven Smith, who gives an outstanding lecture on mineral and resource use. We had recently learned of Marianne Thieme, parliamentary leader of the Party for the Animals of Netherlands. Ms. Thieme converted to the Adventist faith after learning about our position on vegetarianism and concerns regarding humane care of animals.

"Our department has a history of contributions to the relationship between faith and science," Dr. Hayes adds. "In addition to serving as the concluding portion of the department's anniversary celebration, the symposium represented the second and more recent thrust of our department: environmental care and biodiversity conservation.

Dr. Hayes concludes, "We need to val-

ue all of the creation—wholeness encompasses more than mind, body, and spirit; it includes the environment. Healthy humans need healthy environments." ✦

↑ Students take turns being photographed with an Amazon parrot, featured at the "Entrusted—Christians and environmental care" symposium sponsored by LLU department of earth and biological sciences and LLU Center for Biodiversity and Conservation Studies.

↓ Marianne Thieme, parliamentary leader of the Party for the Animals of Netherlands, was a guest speaker during the event. Ms. Thieme converted to Adventism after learning about vegetarianism and the denomination's position toward the humane care of animals.



LOMA LINDA UNIVERSITY HEALTH

Loma Linda University School of Dentistry welcomes new dean and associate dean

By Douglas Hackleman

Ronald Dailey, PhD, was appointed dean of Loma Linda University School of Dentistry, effective July 1, following the retirement of Charles J. Goodacre, DDS, MSD, who had served in that position since 1994.

Robert Handsides, DDS, associate professor and chair of the department of endodontics, now serves as associate dean for academic affairs.

Prior to his new appointment, Dr. Dailey held the position of executive associate dean at the School of Dentistry since 2009, following 15 years before that as associate dean for academic affairs.

Dr. Dailey joined the School of Dentistry in 1975 as an instructor in the department of preventive and community dentistry. He was promoted a number of times through the years, first to assistant professor and director of admissions and student affairs in 1978.

In 1986, he became assistant dean for admissions and student affairs. On September 30, 1993, he was appointed associate dean for academic affairs—the same year he successfully defended his doctoral dissertation, which focused on a re-analysis of the relationship of psychomotor and perceptual skills to student

performance in dental school.

With the acquisition of his PhD in higher and professional education from the University of Southern California in 1994, Dr. Dailey was promoted to associate professor, department of dental educational services.

A year later, in September of 1995, he was named acting chair of the department, a position he maintains.

On June 1, 2009, after 15 years as associate dean for academic affairs, Dr. Dailey was named executive associate dean—a position that reflected the growing list of duties he was already performing.

Dr. Dailey joins a limited fraternity of dental school deans who are not trained as dentists. Among them is John Featherstone, PhD, MSc, current School of Dentistry dean at the University of California, San Francisco.

“Dr. Dailey’s long track record makes him an obvious choice for dean,” says Richard Hart, MD, DrPH, president of Loma Linda University Health.

Dr. Dailey is married to Karen Winston, MD, a Loma Linda University pe-

diatrician, and has three adult children—Casey, Colin, and Katie.

Dr. Handsides graduated with his doctor of dental surgery degree from LLU School of Dentistry in the class of 1993. He remained at the school for a short period of time in the department of oral surgery before returning to his homeland of Canada to establish a solo practice in Kingston, Ontario, which he maintained for five years.

He came back to Loma Linda University in 1999 to earn a certificate in endodontics, which he completed in 2001. Dr. Handsides says the return to academic life resurrected a passion for education. He served the department of endodontics in a variety of roles: course director, lecturer, clinical educator, and researcher. In 2003, he became director of the LLU Faculty Endodontics practice, where he maintains a busy presence.

In 2007, Dr. Handsides joined the LLU Faculty of Graduate Studies as an associate professor, and in 2008, he was promoted to associate professor of endodontics and also became board certified in endodontics. The following year, he became department chair.

Dr. Handsides has authored or co-authored a number of peer-reviewed articles and textbook chapters in endodontics and dental education. He has also presented numerous continuing education seminars both nationally and internationally, enjoying the various cultures and customs of the places he visited.

Dr. Handsides and his wife, Minnie, have three daughters: Alison, a 7th grader; Carina, a high school sophomore; and Nicole, a college freshman. ☎



Ronald Dailey, PhD



Robert Handsides, DDS

Little-known LLU lab studies culture and health, fuels international collaboration

By Heather Reifsnnyder

Even a top health care provider like Loma Linda cannot help people who do not seek treatment. And that is where the culture and behavior laboratory at LLU comes in, led by Hector Betancourt, PhD.

Among other topics related to cultural psychology, the lab, based in the School of Behavioral Health, studies why or why not people seek health care services, or follow treatment recommendations, based on cultural differences.

Grants from the National Institutes of Health and the American Cancer Society, for example, have allowed lab researchers to study how culture and related psychological factors affect whether Anglo versus Latina American women avail themselves of cancer screening—and why women who do come for screening may stop doing so if the clinical encounter is unsuccessful due to cultural difference between patient and provider.

Dr. Betancourt and Patricia Flynn, PhD, MPH, have conducted the research along with LLU doctoral students and investigators in Chile and Mexico.

“Within the context of a culturally diverse society and interdependent world, understanding the role of socially shared beliefs, values, and norms that influence health behavior and health care encounters is key

to global health,” says Dr. Betancourt, who established the culture and behavior laboratory in 1998.

Cross-cultural exchange is paramount to the success of the lab, which over the last six years has established a mutually beneficial relationship with Universidad de La Frontera in Temuco, Chile—the country’s most culturally diverse region.

Dr. Betancourt helped the Chilean university create, and receive accreditation for, its doctoral program in cultural psychology—one of just a few such programs internationally. He also helped them create a research program on type II diabetes funded by the Chilean government.

Research collaboration between the two universities will benefit both the people of Chile and students at Loma Linda University.

The first co-project studies the rise of diabetes in Chile, where cultural changes in the shape of economic development, nutrition, and lifestyle have led to a sharp increase in the disease—even among the

native Mapuche population of Chile, which historically experienced one of the lowest incidences of it in the world.

Loma Linda University graduate students are helping analyze the data, and some are using it for their theses and dissertations.

Currently investigators from the two universities are collaborating on developing manuscripts to publish the findings. This initial project has led to other ideas for further research, both in Chile and the United States.

A number of LLU students working in the lab have coauthored some of the lab’s pioneer publications on cultural health psychology, with some receiving recognition at national and regional science conferences in the U.S., including Gregory Regts, Sonika Ung, and Daniel Northington.

Students from Chile have also benefited from the international collaboration, such as María José Baeza Rivera and Natalia Salinas Oñate, doctoral candidates from the Chilean PhD program.

They came to Loma Linda University earlier this year to work with Drs. Betancourt and Flynn in the culture and behavior lab and receive help preparing their dissertation proposals on cultural health psychology.

“We’ve never been in a lab like this before because we’re just starting out with this discipline in Temuco, Chile, so it’s interesting to see how the lab operates,” says Ms. Salinas. “It’s like seeing the future for us—someday we will have this at home, too.”

Ms. Baeza adds, “The most valuable thing is the exchange of experiences, because the culture and behavior lab in Loma Linda understands the research, while we have knowledge of a different cultural reality—for example, the indigenous Mapuche people.”



Two students from Chile came to Loma Linda to study and develop research in the culture and behavior laboratory: María José Baeza Rivera (left) and Natalia Salinas Oñate.

Professor awarded Fulbright scholarship to conduct research in United Kingdom

By Heather Reifsnnyder

The U.S. Department of State and the J. William Fulbright Foreign Scholarship Board have named Steven M. Yellon, PhD, professor of basic sciences and gynecology & obstetrics in the LLU School of Medicine, a Fulbright Scholar.

Dr. Yellon is doing research at the Queen's Medical Research Institute's Center for Reproductive Health at the University of Edinburgh in Scotland, United Kingdom, during the 2013–2014 academic year. Fulbright scholar awards to the United Kingdom in the All Disciplines category are among the most competitive for applicants.

Dr. Yellon hopes his research may lead to knowledge that could someday reduce premature births and other complications of labor.

"An alarming increase in pre-term births and difficulties with labor require medical interventions in more than 40 percent of births in the United States and other developed countries, and the problem is of even greater concern in developing nations," he says.

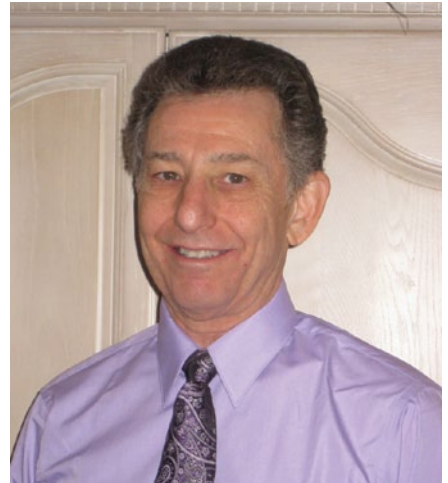
Dr. Yellon's research specifically centers on changes in the cervix that can advance or impede the birth process. He will collaborate with Professor Jane E. Norman, MD, director of the Tommy's Centre for Maternal and Fetal Research, in basic and translational studies of the inflammatory mechanism that remodels the cervix during pregnancy.

Dr. Yellon is one of only about 25 U.S. faculty and professionals working in the United Kingdom as Fulbright scholars, and his award is also a rare distinction among faculty members throughout Loma Linda University's 108-year history.

Besides the direct findings of his research, Dr. Yellon believes that the exchange year will result in lasting benefits to students of Loma Linda University and the University of Edinburgh.

"I hope to build a network of understanding among world-class basic and clinical researchers and their trainees," he says, "as well as to serve the mission of LLU by representing the highest qualities of scholarship during my time at the University of Edinburgh.

"It is my goal," he adds, "to bring back insights about research infrastructure, medical education, and clinical programs to further my contribution to the academic environment at LLU."



Steven M. Yellon, PhD

Specifically, he hopes the collaboration with British researchers will enhance Loma Linda University's reach through goals such as starting a maternal/fetal medicine research fellowship, establishing a tissue bank for research at the Perinatal Institute, and developing a research division in the LLU Center for Perinatal Biology.

Dr. Yellon sees the opportunity as a cross-cultural pollination of varied academic traditions.

Such exchange is the mission of the Fulbright Program, which is designed to increase mutual understanding between the peoples of the United States and other countries while contributing to solutions to shared international concerns. In addition to this, Dr. Yellon hopes to be an ambassador of Loma Linda University's values and mission.

Since its establishment in 1946 under legislation introduced by the late U.S. Senator J. William Fulbright of Arkansas, the Fulbright Program has given approximately 310,000 students, scholars, teachers, artists, and scientists this opportunity. ✦

Dr. Yellon hopes his research may lead to knowledge that could someday reduce premature births and other complications of labor.



Loma Linda University Health tradition of service inspires couple to find true fulfillment and give back

By James Ponder

Donating to help the Loma Linda University School of Dentistry inspire future generations of dental professionals to devote their lives to mission service just feels right to Dr. Quint and Norene Nicola.

“God has been good to us,” Dr. Nicola says, “and because Loma Linda University School of Dentistry gave us a heart for service as well as an excellent education, it was an easy decision.”

When Dr. Nicola received his DDS degree in 1969, he and Norene were dreaming of the good life.

“I was planning on associating with my father at his dental practice in Redlands,” Dr. Nicola shares, “and joining the upwardly mobile treadmill—the rat race.

“We bought a couple of cars,” he remembers, “a boat, a dune buggy, and a motorcycle. We were starting to buy a house when a missionary friend came back and showed us slides of what he had been doing in the Philippines.”

The heartwarming images and the mission’s passion for healing in the name of Christ touched the couple deeply. Suddenly, the emphasis on service that had been so strongly accented during his student years became an irresistible force.

“It was the challenge of helping people who would not otherwise receive care,” Dr. Nicola attests. “We just realized if we didn’t

go help them, it wouldn’t get done.”

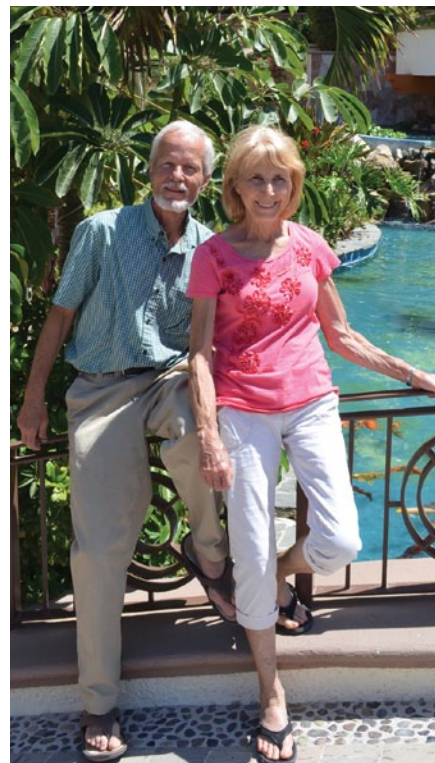
In 1971, the couple left the fast lane and headed to Pakistan where Dr. Nicola worked as a missionary dentist. Norene, meanwhile, gave birth to their son, Royce, in 1972. They stayed until 1975 when they moved to Monument Valley, Utah. Dr. Nicola served the dental needs of American Indians until 1980, and Norene brought daughter Caroline into the world in 1976. They returned to Pakistan in 1981, and remained there until 1986.

In the late 1980s, Dr. Nicola joined the faculty of the School of Dentistry part-time. In 2001, he was appointed dental secretary of the General Conference of Seventh-day Adventists and helped students commit to overseas service through the deferred mission appointee program. He retired in 2011.

Dr. Nicola credits the Loma Linda University Health office of planned giving with designing the perfect annuity to meet their needs.

“The proceeds will go to the School of Dentistry and to Adventist Health International,” Dr. Nicola reports. “It lets the school continue to do what it’s doing and allows us to survive retirement.

“Loma Linda University gave me the best professional education I could possibly have gotten,” he concludes. “Along with the emphasis on service, that’s what motivates us to give back.” ✦



Helping Loma Linda University School of Dentistry educate future generations of dental professionals through an annuity is a natural extension of Dr. Quint and Mrs. Norene Nicola’s interest in mission service. The couple served the people of Pakistan and the Navajo Nation in the 1970s and 1980s.

Unique path to Loma Linda leads proton patient and wife to better life and opportunity to pay it forward

By James Ponder

After reading an article in the August 2013 edition of *BOB Tales*, a proton patient newsletter, about Ron and Karen Hendricks, a Washington State couple who remembered the James M. Slater, MD Proton Treatment and Research Center in their estate plan, a husband and wife from Orange County decided to do the same thing.

Frank and Sirpa Lee’s proton journey began in March of this year when Frank’s urologist called with alarming news: “Hey

Frank, you have cancer.”

After his initial shock at both the news and his doctor’s abrupt delivery, Frank thought he remembered seeing a copy of Robert J. Marckini’s book—*You Can Beat Prostate Cancer and You Don’t Need Surgery to Do It*—on his bookshelf. Mr. Marckini, a former Loma Linda proton patient himself, is perhaps the world’s biggest advocate of proton treatment for prostate cancer.

“Sirpa had a friend from Finland,” he explains, “who had advanced prostate can-

cer. The friend asked us to contact Loma Linda for him. They sent us a copy of Bob’s book and I kept it since the friend doesn’t speak English.”

To Frank’s amazement, the book was right where he had left it seven years earlier. “It never occurred to me I might need it someday,” he says. “I call it a miracle. Bob Marckini says it was divine intervention.”

The urologist was not pleased when Frank asked about proton therapy. “Mr. Lee,” the doctor asked, “have you been reading?”

Frank had, of course, and he was con-



LIVE IT: Whether traveling the world or visiting friends at the James M. Slater, MD Proton Treatment and Research Center at Loma Linda University Medical Center, Frank and Sirpa Lee always manage to have a good time. After Mr. Lee was successfully treated for prostate cancer, the couple decided to foster the cause of proton research and therapy through their estate plans.

vinced that proton treatment is safer, more effective, and less damaging to surrounding tissues than conventional radiation therapy. The urologist, however, favored surgery.

“I asked if there were other options,” Frank recalls, “and he said, ‘Yeah, robotic surgery.’”

Frank was surprised when the surgeon compared robotic surgery to handling chopsticks. “I can’t even pick up food with chopsticks,” Frank replied.

Next, the urologist sent Frank to a radiologist. “He wanted to treat me with IMRT radiation with seeds implanted in me. He also required me to have a CT scan after every three or four treatments to make sure the radiation had hit the target. I knew it would subject me to more radiation exposure.”

That’s when Frank decided in favor of proton therapy at Loma Linda University

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What’s Your Plan?

MANY STRENGTHS.
ONE MISSION.

The Heritage Society honors those who have provided for the work of Loma Linda University, Medical Center and/or Children’s Hospital through a planned gift such as a will, trust, gift annuity, charitable remainder trust, life insurance policy or retirement plan.

To join, visit hs.llulegacy.org or call the Office of Planned Giving to request a membership form.

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“We are pleased to have created an endowed scholarship in Religion to help Loma Linda University students.”

— David L. Taylor, PhD and Maxine J. Taylor, EdD



LOMA LINDA UNIVERSITY
HEALTH

Baseball Hall of Fame honors alumnus Dr. Frank Jobe, who ‘changed the face of baseball’

“Sports medicine now includes the work of the physicians and surgeons, trainers, physical therapists, dietitians, psychologists, and more. Together, they all help players get well from injury and maintain strength and conditioning to avoid re-injury. And yes, sports medicine at its best also requires input from one other very important person ... the athlete himself.”

– Excerpt, Dr. Frank Jobe’s speech, July 27, 2013, Baseball Hall of Fame

By Nancy Yuen

Baseball pitcher Tommy John’s problems began at an early age.

“I first hurt my elbow at 13 years of age in Little League,” Tommy John told a videographer for an ESPN short film. As the pitcher’s career progressed to the Minors and then to the Major Leagues, he continued to experience pain in his elbow. “Back then, you didn’t say to anybody ‘my elbow hurts.’”

Tommy John continued pitching in the mid 1970s, wearing Dodger Blue and enduring increasing pain. Once, after pitching a shutout, he couldn’t move his arm. In order to brush his teeth, he held the brush in his hand and moved his head.

Then in 1974, while playing against the Montreal Expos, he felt horrendous pain in his elbow as he was beginning a pitch. He relived the moment for the videographer: “It’s a pain like I’ve never had in my life. I shake my arm, get the ball back, and throw again. I feel the same pain and the ball falls weakly over home plate.”

The interview continued as Tommy Lasorda recalled what happened next: “I saw him walk off the pitching mound and go into the clubhouse. I didn’t know what was wrong with him.”

Tommy Lasorda hurried to investigate. When he found Mr. John, “His first words to me were: ‘Get Dr. Jobe.’”

Frank Jobe, MD, was the team doctor for the Dodgers. “In the 1970s,” says Dr. Jobe, “there were no CT scans, no MRIs. There were X-rays. Tommy John’s X-rays revealed that the bone was intact; there were no

chips.” As he examined Mr. John’s arm, his forearm bent far to the side. “Tommy had torn the stabilizing forces on the inside of his elbow; it was a career-ending injury.”

Dr. Jobe knew that neither surgery nor rehabilitation would help. “I did the only thing that surgeons could do at the time—encourage the athlete to try to get a good job when he returned home.” Tommy John responded, “I’m not going to do that. I want you to fix it.”

As he wrestled with the dilemma, Dr. Jobe remembered that hand surgeons were successfully using tendons to reconstruct fingers. After consulting Herb Stark, MD, a respected hand surgeon in the Los Angeles area and faculty member at Univer-

sity of Southern California, he thought the technique just might work. “The chances of the surgery working are 1 in 100,” he told Tommy John. “I can tell you, though, that if you don’t have the surgery there is a 100 percent chance you will never pitch Major League Baseball again.” After taking time to decide, “He came to my office,” says Dr. Jobe, “and said the magic words. ‘Let’s do it.’”

In surgical textbooks, the procedure is known as “graft reconstruction of the ulnar collateral ligament of the elbow.” The 20 syllables proved so cumbersome during interviews that Dr. Jobe began calling it the “Tommy John surgery.” When asked why he didn’t do research on the technique before trying it on a person, Dr. Jobe replied,

Unique path to Loma Linda leads proton patient ...

Continued from page 29

Medical Center. He’s very glad he did.

“I had the best-ever team at Loma Linda,” he shares. “Everyone from Unique, Laura, and Jennifer at the front desk to the technicians—Vicki, Jan, Michelle, Kyle, Tim, Louis, Ben, Kimberly, and Savet—and of course, Amy Austin, Victoria Serrano, and Dr. Lynn Martell. These people do their absolute best to take care of the patients. I salute them!”

Forty-five treatments later, Frank and Sirpa marvel at the changes he continues to experience.

“He walks three miles every day now and works out at the gym,” Sirpa says. “The treatment hasn’t slowed him down a bit.”

“I’m the poster child for proton,” Frank beams. “I had zero side effects. Proton was the right answer for me.”

Portions of the Lees’ future estate will support proton research and call attention to the benefits of proton treatment compared to surgery or conventional radiation therapy.

“We remembered Loma Linda in our estate plan because we want to help others receive the help we got,” Frank explains.

For more information about how to include Loma Linda in your estate plans, contact the Loma Linda University Health office of planned giving at (909) 558-4553 or visit www.llu.legacy.org. ☪

“animals don’t throw baseballs!”

Tommy John’s rehabilitation took 12 months; one year and one day after the surgery he pitched his first game. He went on to play 14 additional years without missing a start and won 164 additional games. In 1976, Dr. Jobe performed the second Tommy John surgery, and 124 Major League pitchers since have had their careers extended because of the procedure.

According to an ESPN report, there are 366 pitchers among all players on active 40-man rosters in Major League Baseball. If it weren’t for Dr. Jobe, the number would be reduced by about 25 percent. Coaches, team owners, players, and sportswriters alike agree that Dr. Jobe has done the most of any doctor to change the face of baseball.

Kerlan-Jobe Orthopaedics, cofounded by Dr. Jobe, remains a world leader in the diagnosis and treatment of orthopedic and sports medicine injuries and illnesses. In 1973, an orthopedic and sports medicine fellowship program was established at Kerlan-Jobe. Approximately 50 percent of professional teams have physicians who trained at Kerlan-Jobe.

While professional athletes travel to the clinic from as far away as Japan, the same



care is given to the aerospace engineer injured on the job or the teen who has broken her ankle skateboarding. “At Kerlan-Jobe,” insists Dr. Jobe, “everyone receives the same level of care; everyone is treated the same.”

Tommy John was present to celebrate with Dr. Jobe during the awards ceremony. He spoke fondly of his friend. “People have asked me if I think Frank Jobe should be

in the Hall of Fame. I certainly do because what he did medically changed the face of baseball. There is no person on the earth more deserving of an honor than Dr. Frank Wilson Jobe.”

Frank Jobe, MD, School of Medicine class of 1956: his story

Dr. Frank Jobe stood on the stage of Baseball Hall of Fame’s Doubleday Field to accept his award for creating what is known as the Tommy John surgery, a procedure that has extended the careers of many baseball pitchers.

“I’d known that friends were campaigning to get me recognized by the Hall of Fame,” he says, “but I never thought it would happen.”

Those friends include baseball luminaries Oral Hershiser, Tommy John, Sandy Koufax, Tommy Lasorda, Peter O’Malley and Vin Scully. What can happen when living legends band together, determined that someone they consider a hero be recognized? The story is captivating.

In his office and later, over a sandwich at his favorite diner, Dr. Jobe reminisces. Before being drafted and joining the 326th Airborne Medical Company, 101st Airborne Division in 1943, the recent high school graduate had never seriously considered becoming a physician. “I started as a medical records clerk counting bandages,” he says, “and was later promoted, placed in charge of medical supplies.”

Members of the 101st Airborne Divi-

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↑ Tommy John (left) was one of the legends who tirelessly campaigned until the Baseball Hall of Fame honored his friend and surgeon, Dr. Frank Jobe. Dr. Jobe created the procedure that enabled Mr. John to play professional baseball for an additional 14 years after injuring his elbow. He would go on to win 164 more games.

➤ Sports legends, actors, and past presidents—friends of Loma Linda University alumnus Frank Jobe, MD (School of Medicine, class of 1956)—have presented him with signed portraits and memorabilia, displayed in his office. There is even a framed Trivial Pursuit game card, a gift from a past patient with a question about the procedure Dr. Jobe created that changed the face of baseball—the Tommy John surgery.

Baseball Hall of Fame honors alumnus Dr. Frank Jobe ...

Continued from page 31

sion used parachutes to transport equipment behind enemy lines. Dr. Jobe made the perilous early-morning journeys aboard gliders that were towed into the combat zone. The surgeons worked as the war raged outside the walls of the tents they were operating in. When the division was given time out to rest, the doctors questioned the promising 18-year-old. “Frank, what are you going to do when you get out? You have to have a plan.” They encouraged him to become a doctor.

By the time he returned home in 1946, he had lived through two of the historic battles of World War II: the Battle of the Bulge in Belgium and the Battle of Arnhem (Operation Market Garden), in Holland. During Operation Market Garden, the 101st Airborne Division was ordered to seize key bridges. Dr. Jobe’s unit successfully held a bridge until the British advanced. For his service, he was awarded a Bronze Star, a Combat Medic Badge, and a Glider Badge.

A few years later, after completing studies at La Sierra University, he began working at White Memorial Hospital in Los Angeles, assisting with autopsies. The doc-

tors who worked closely with him encouraged him to pursue his goal; they relayed their endorsement to his medical school of choice and he was accepted to the School of Medicine at Loma Linda University.

After earning his MD degree in 1956, Dr. Jobe was determined to repay his loans. While working as a general practice physician, he became friends with local orthopedic surgeons. “They let me assist,” he recalls. It was a good fit and he applied to an orthopedic surgery residency, which he completed at Los Angeles County Hospital. While he didn’t consider it at the time, he’s incredulous as he reminisces. “There were 75 applicants that year,” he says. “And they chose me.”

Dr. Jobe approached his residency with the mind set he brings to all of life. “You show up,” he says. “You work hard. You want to learn.”

One day, Dr. Jobe was presenting a case to Dr. Robert K. Kerlan, chief of service at the time. He recalls, “Dr. Kerlan whispered to me, ‘Come and see me in my office.’ When he asked me to join his practice, I thought ‘Dr. Kerlan, who works with the Dodgers, wants to work with me?’” Their agreement was sealed with a handshake.

While Dr. Jobe remains humble about his talent, Clayton Patchett, an orthopedic surgeon from Pasadena, shares his insight.

“I have watched him in surgery. He can do amazing things with his hands that other surgeons just cannot do. Dr. Jobe is a truly a gifted surgeon.”

The Baseball Hall of Fame award is displayed in Dr. Jobe’s office, the Tiffany sparkling among autographed pictures of presidents and sports figures, actors and actresses. The world is intrigued by this legend; he answered hundreds of reporters’ questions in the weeks leading up to the 2013 Induction Weekend, and he continues to respond to interview requests.

In his acceptance speech at Doubleday Field, Dr. Jobe gave his definition of sports medicine. “Sports medicine includes the work of the physicians and surgeons, trainers, physical therapists, dieticians, psychologists, and more. Together, they help players get well from injury and maintain strength and conditioning to avoid re-injury. And yes, sports medicine at its best also requires input from one other very important person—the athlete himself.”

On Dr. Jobe’s 88th birthday, the conference room at Kerlan-Jobe clinic fills with group after group of colleagues and staff celebrating with him. Among the surgeons, physical therapists, and receptionists, a student volunteering in the physical therapy department shyly approaches. “Dr. Jobe, I didn’t know who you were until a few days ago. I want to wish you a happy birthday.” Dr. Jobe shakes the young man’s hand and asks about his plans. “I’ve applied to PT school,” says the young man. He pauses. “But there are hundreds of applicants.”

Physical therapy is an extremely competitive field, Dr. Jobe explains after the young man leaves. “I think I’ll check on his work with us,” he says. “If he has done well here, I will write a good recommendation for him.”

Will Dr. Jobe’s endorsement change this young man’s fate? He can’t say for certain but the possibility delights him. He smiles; he’s reminded of people who noticed his talents and encouraged him, acting on his behalf when he was too young to know what he would, or could be. He expressed this understanding of humanity, and its connection with the healing arts, in his Hall of Fame speech on Doubleday Field, paraphrasing John Donne’s quote: “No man is an island unto himself; every man is part of the whole.” ✦



During the 2013 Baseball Hall of Fame Induction Weekend, Frank Jobe, MD, receives an award for developing the Tommy John surgery which has extended the careers of many pitchers. Making the presentation is Jane Forbes Clark, board of directors, National Baseball Hall of Fame (NBHF) and Museum. Tommy John stands to Dr. Jobe’s left while Jeff Idelson, Hall of Fame president, looks on. *Photo by Milo Stewart Jr., NBHF.*

Physical therapy alumna and former Olympian remembers 1964 games

By Darcie Moningka

A girl from Germany had just exited the pool when it was time for Linda Cooper to take the steps up to the platform. She slid both hands slowly across the cold metal rails as she reached the top. She paused for a moment, took a deep breath, and reached down to run her fingers along the platform. It did not feel any different from others she had dived from before.

Remain steady.

She looked down at her feet as she walked toward the water. The rest of the U.S. Olympic Diving Team waited below. Her heart pounded as she tried to calm herself once more.

Remain steady.

After adjusting the straps of her swimsuit, Linda took a few long seconds staring straight ahead to compose herself. Only a year had passed since she won the gold

medal at the 1963 Pan American Games in São Paulo, Brazil. She was ready for this.

Remain steady.

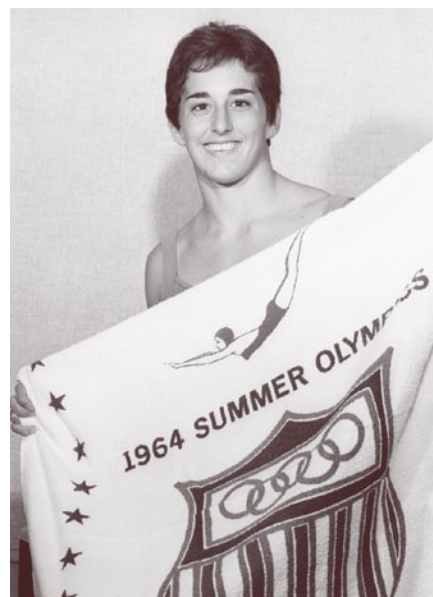
Just the night before, one of the Japanese divers had hit his head on the platform during his dive, causing serious injury. It was all Linda could do to not worry if that would happen to her as well. "I felt confident, but as I got ready for the last dive, the image flashed in my mind, and that is not the best focus for any diver," recalls Linda.

She took a few steps forward and turned so her back faced the pool. As she cautiously moved backward, she extended her arms in front of her for balance. Her toes were the only body parts keeping her on the platform. Linda placed her arms by her sides.

Remain steady. With God, all things are possible.

She took a deep breath and jumped.

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↑ Linda Cooper holds her U.S. team towel from the 1964 Olympic games, which took place in Tokyo, Japan.

↓ The camera catches Linda at the height of a dive, her gaze concentrated on the water below, where she will make as little a splash as possible.



LLU alumna and former Olympian remembers 1964 games ...

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"I was nine years old when I knew I loved diving," says Linda, "and it was my mother's dream for me to compete in the Olympics. With her vision and my dedication, we made a good team."

Linda began her pursuit to be on the U.S. Olympic Diving Team when she moved from her home in San Bernardino, California, to Anaheim, California, at the age of 15. There, she received training from former Olympic gold medalist Sammy Lee and coaches Glenn McCormick and Jack Roth.

Determined, Linda trained for five years until she was ready for the 1964 Olympic Trials in New York. "I knew my responsibilities and I was a committed individual," she says. Then, at age 20, it was not a surprise to Linda when she was chosen to compete in the 1964 Olympic games in Tokyo, Japan.

When she entered the Olympic Village in Tokyo, Linda felt patriotic. "I was incredibly excited to represent the U.S. that year," she recalls. "However, there was very little

Linda Cooper (center, sitting on stool) is surrounded by her family in Coeur d'Alene, Idaho, on a winter's day.

interaction between the athletes. There were some really amazing people that I never had the chance to meet."

As she watched her competitors and the male divers before her, Linda noticed the different body forms of each athlete. "I liked watching my competitors. The German and Russian athletes had especially good bodies for diving; they were beautiful," she says. "And as I watched, I never wanted to 'best out' another person. I just desired to 'perform my best.'"

The thought of competitors slid from her mind as she jumped into an inward two-and-a-half somersault, tuck position. Linda moved her body into several turns until only the splash of water could be heard as she dove in. When she came up for air, applause filled the arena.

Immediately, she swam to the edge of the pool to push herself out. As she walked across the concrete adjusting her swimsuit straps, she turned around to see her scores. She paused in anticipation. Deep breaths. By the smallest margins, Linda had come in fourth place.

"We hugged," she says of her teammates, "confident that we all had competed to the very best of our abilities. And I

cried, but it was out of total relief that I could go on with my life from the many years of hard work and dedication."

When she returned to her home in San Bernardino, Linda applied to the physical therapy program at Loma Linda University School of Allied Health Professions, after being inspired by a physical therapist she met in Tokyo. "This was the perfect profession for me," she recalls.

After starting the program in 1965, she married Lieutenant Bill Tiger from Norton Air Force Base, and graduated in 1967. Linda practiced physical therapy for 14 years and had three children: Julie, Heather, and Jeffrey.

Today, Linda lives in Coeur d'Alene, Idaho. She and Bill are both retired. The kids are grown, and writing is one of her main hobbies. Loma Linda University Children's Hospital purchased her book, *A Touch of Prayer*, in 2007.

There was a time when Linda considered competing in the Olympics again. With the help of her husband, she tried to resume training. Yet, as time passed and busy schedules conflicted, she realized she was content with the way her life was going.

"I have never regretted not going back," she says. ✦



Campus renewal links past to present, north to south, and symbolism to reality

By Heather Reifsnnyder

Out of temporary interruption, a new contiguous campus will arise when workers finish the final touch on a renovation of the north end of the campus that has been under way for several years.

The renewal project, which begins with the Centennial Complex, will unite the campus from this point in a straight line south to the Medical Center, both physically and with symbolic recognition to Loma Linda University Health's history and commitment to service. "This part of campus accentuates all we are and do," says President Richard Hart, MD, DrPH.

A person looking south from atop the Centennial Complex would see construction to lower Stewart Street below ground level by about 15 feet and place a pedestrian walkway over it. From there, the

view extends south through the Centennial Pathway, the Mission Globe, Founders Plaza, the Good Samaritan Sculpture, and the Medical Center.

The Stewart Street crossing presented a pedestrian safety hazard. Scheduled for completion in summer 2014, a new wheelchair-accessible bridge will safely carry pedestrians over the lowered street.

The Centennial Pathway will span the bridge. This pathway features colored brick pavers commemorating significant dates in the institution's history. Originally planned to stop at 100 years (2005), the walkway will now extend to the year 2056.

The pathway starts with the year 1905 at the Founders Plaza next to Magan Hall. The plaza, completed in 2012, recognizes the institution's beginnings. The Mission Globe, about halfway down the path, is a 26-foot stainless steel representation of

the earth's spherical lines arising out of a reflection pool and completed in 2011. The granite base surrounding the pool features names of alumni and staff who have served a year or more in mission overseas.

Visitors who approach the Centennial Complex from its north-facing parking lot are greeted with a sculpture titled "Who Touched Me?" by Alan Collins, unveiled in 2010. The sculpture brings to life the story told in the Gospels about the bleeding woman who was healed by simply touching the fringe of Jesus' garment. ✚

Campus parking gets a boost

By Heather Reifsnnyder

Parking availability will be increased by 1,200 spaces this year. A new parking structure is nearing completion on Campus Street between West Hall and the

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Looking south from the top of the Centennial Complex, the concrete has been laid for the new pedestrian bridge, which will unite the campus north and south. Stewart Street will be widened and will run below the bridge.





Parking availability gets a boost ...

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existing parking garage. When finished in November, the new garage will bring the total number of parking spaces on campus to nearly 9,000.

The new structure will offer safety features including glass-walled elevators and staircases, as well as state-of-the-art surveillance systems and motion-detecting lighting. Entry and exit to the new parking structure will be controlled by license plate recognition.

“This structure will go a long way toward easing parking congestion on campus,” says Steve Hertel, executive director of parking and traffic services.

The department of parking and traffic services has also entered into the planning stages of a second parking structure of approximately 750 spaces, slated to open by 2015 at the northeast corner of Barton Road and Campus Street.

The almost-finished new structure will be Loma Linda University Health’s first parking area that is controlled through license plate recognition. This feature is part of the institution’s internally developed parking management system.

This online system is the most advanced in the country and is being marketed to other universities throughout the U.S., according to Mr. Hertel.

Future plans include opening the online parking management system, currently only accessible via campus intranet, to the Internet so that users may access their accounts from home or their wireless devices.

Additionally, an app is in the final process of development, from which users can manage their parking accounts, receive



↑ The new parking structure, located across from the emergency room at Loma Linda University Medical Center, is nearly complete and will add 1,200 parking spaces.

↔ The elevators and staircases for the parking structure will be glassed in.

↓ Shryock Hall has been fully renovated and now houses the School of Pharmacy.

traffic information, and see parking updates on their phones.

In efforts to further improve security, the department of parking and traffic has begun exploring the conversion of the existing lots to the parking management system, with the added feature of new light-

ing, cameras, and security fencing.

Steve Hertel states, “We want our students, employees, and visitors to feel as safe as possible while using the parking lots on campus. We will send a clear message that Loma Linda is not the place to be if you intend to break the law.”

New home for LLU School of Pharmacy in Shryock Hall

By Stephen Vodhanel

Shryock Hall was completely upgraded to become the new home of the School of Pharmacy in fall 2012. Previously spread across campus in three buildings, the school consolidated most of its operations into the renovated Shryock.

“The remodeled building exceeded our expectations,” says Billy Hughes, PhD, dean of pharmacy. “Additionally, having most of our

faculty, staff, and students in one building has created an atmosphere ideal for learning and collaboration.

“We are thrilled to be located in the center of campus,” he concludes.

Some of the amenities at Shryock Hall include a large amphitheater, expanded room for the division of experiential education, the CVS Student Lounge, the Walgreens Pharmacy Laboratory, and a student collaboration center.



Breakthroughs in plant-based diet research headline Congress on Vegetarian Nutrition

By Herbert Atienza

Loma Linda was the epicenter of all major scientific-based research on plant-based diets and nutrition earlier this year as more than 800 of the world's leading scientists, researchers, and advocates gathered for the 6th International Congress on Vegetarian Nutrition, hosted by Loma Linda University Health in February.

Presenters discussed links between diet and longevity, how plant-based diets can help prevent and treat major chronic diseases, and the sustainability of plant-based diet lifestyles.

"It's a real privilege for Loma Linda to be identified with this congress, which is the premier international conference for research in plant-based diets," said Richard Hart, MD, DrPH, president of Loma Linda University Health, during his welcome. "Loma Linda has pioneered efforts that

now allow us to gather here. Vegetarianism is no longer an Adventist thing or a novelty. It has become a science-based way of life for many people."

"Vegetarian nutrition is a stalwart research theme of our school," says Tricia Pennicook, MD, MPH, dean of the School of Public Health. "During the congress scientists, practitioners, academicians, students, and the community learned more about how a vegetarian lifestyle can be taught and implemented."

Major research findings were unveiled at the congress, including the results of the Spanish study PREDIMED, which revealed that plant-based Mediterranean diets are better at reducing heart disease risks than a low-fat diet. Miguel Angel Martinez, MD, MPH, PhD, lead investigator, says the congress was a good place to unveil the study's findings because they stand on groundbreaking research conducted at LLU,

including the Adventist Health Study and a study on walnuts and heart disease.

"It's a good opportunity to celebrate the findings from these studies from two decades ago; it's like closing the loop," says Dr. Martinez. "Our findings are very supportive of the research of those pioneering studies at Loma Linda."

The congress is organized every five years by the School of Public Health and chaired by Joan Sabaté, MD, DrPH, who notes the event grows each time it is held.

"The interest from both the Adventist community and the scientific community is increasing," he says. ✦

In February 2013, more than 800 delegates attended the 6th International Congress on Vegetarian Nutrition, held at Loma Linda University Health.





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