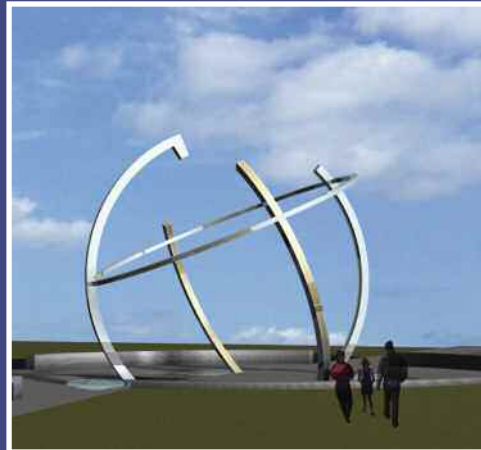


LOMA LINDA UNIVERSITY & MEDICAL CENTER

SCOPE



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A mother and her child in Cameroon pose for a picture in front of her new bed net, which helps combat malaria. The bed net was provided by SIMS on a recent trip.

On the front cover:

Top left: An artist's rendering of the Centennial Globe that will serve as one of the highlights of the Centennial Pathway leading to the new Centennial Complex. Top right: Mount St. Helens-like, the top of Gentry Gymnasium has already disappeared in this photo taken on February 10, 2006. Bottom: An architect's rear-view rendering of the Centennial Complex, prepared by Tom Elander, senior associate with Cannon Design in Los Angeles, California.

On the back cover:

Top left: Students for International Mission Service (SIMS) hosted a health fair in Cameroon in December. Special fairgrounds were constructed from palm fronds by the local Pathfinder club. Top right: Loma Linda centenarian Marge Hodge Jetton stays in shape with a daily workout regimen and keeping involved in community projects. Center: Leonard L. Bailey, MD, poses for a picture with his infant heart transplant patients. Bottom: Since Grover Wilcox was diagnosed with Wegener's in 1995, he frequents LLUMC both as a patient and as a visitor sharing God's love to others who suffer.

SCOPE

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Continuing the vision

CONSTRUCTION SOON TO BEGIN
ON MAJOR NEW CAMPUS LANDMARK

BY KEN MCFARLAND

Something extraordinary is about to happen at the north end of Loma Linda's campus. Where Gentry Gym now stands, a stunning new multistory building—the Centennial Complex—is soon to rise as a major hub of teaching and learning.

As what will become one of the most enduring legacies to mark Loma Linda's centennial year—spanning 2005 and 2006—the Centennial Complex will provide urgently needed classrooms, laboratories, faculty offices, and other state-of-the-art educational facilities for students in all schools of Loma Linda University.

Loma Linda's growth momentum—realistic estimates are that by 2010, university enrollment will pass 5,000 students—has outpaced its resources and infrastructure. The new facility will help meet a critical need. But the Centennial Complex will be far more than just bricks and mortar, steel, and glass. It will have a profound and transforming effect on how the University's students learn, how its faculty teaches, and how Loma Linda fulfills its twin teaching and healing missions into its second century.

An artist's rendering of the Centennial Complex from a southwest view. The complex will reside on the north end of campus.

Key elements of the new complex will include:

- **Classrooms and laboratories.**

Unlike any previous classrooms and labs on campus, these new “smart” classrooms and labs will be leading edge—built for the high-tech present and future. Students will have full wireless Internet connectivity. Faculty presentations will be broadcast by satellite or Internet to locations around the globe or distributed on DVD or CD-ROM.

- **Anatomy pavilion.** The present 1936 anatomy facility was built to accommodate only 100 students. Today, hundreds of students study anatomy in the various schools of the University. The new pavilion will offer 100 workstations, each accommodating three to six students. Students will use computer screens to display high-res images of anatomical structures and dissection techniques.

- **Educational technology center.** The “nerve center” of the complex, this center will house the various technologies—computer, audio, video, and robotics—connecting students and faculty both on-campus, regionally, and worldwide. As technology advances, the center will make possible such innovations as telemedicine consultations, remote learning, worldwide continuing medical education, and surgery demonstrations.

- **Skills and assessment center.** In this center, students will practice and learn from simulated interaction with trained, “stan-

dardized” patients. In real exam rooms, they will practice their diagnostic and treatment skills and receive immediate feedback from qualified observers as well as the trained patients. Built-in audio, video, and computer equipment in each room will make possible student self-evaluation. Students can review their interactions as many times as desired to identify their clinical and relational strengths and weaknesses or to consider other possible approaches.

- **Amphitheater center.** Two large amphitheatres—one seating 250 students, the other 350—will be located adjacent to the classrooms and laboratories. Uses will include regularly scheduled classes, continuing education courses, seminars, and other programs. Linked to the complex's educational technology center, these amphitheatres will offer full multimedia capability. The smaller of the two amphitheatres will feature conference-style seating. The larger amphitheater will be the largest such facility on campus, making possible the meeting together of multiple classes and groups.

A campaign to raise \$40 million to fund the Centennial Complex was announced in February of 2005. In upcoming issues, this column will report on the progress of this campaign and introduce its leadership. As of this issue, however, those involved in this challenge are pleased to report that \$30.9 million of the total has been given or pledged.



Mount St. Helens-like, the top of Gentry Gymnasium has already disappeared in this photo taken on February 10, 2006. For a current real-time view of dismantling progress check the Internet live-cam site at <www.llu.edu/centennial/complex/construction.html>.

Interested readers may wish to visit the Centennial Complex website at <www.llu.edu/centennial/complex>. Click on the “Construction Live Cam” link to see a real-time view of the removal of Gentry Gym (to be reconstructed on property owned by the Loma Linda Spanish Church on New Jersey Street) and the construction of the new complex.

Behind the decision to build the Centennial Complex

At Loma Linda, every building on campus was built for a reason. Each decision to build was in the service of meeting a need. And the decision to build the Centennial Complex also has its reasons. Perhaps those reasons can be summarized in three compelling imperatives: Growth, innovation, and globalization.

In a joint statement, B. Lyn Behrens, MBBS, LLUAHSC’s president—and Richard H. Hart, MD, DrPH, University chancellor—stress the importance of these three imperatives:

“For many institutions, the first two themes of growth and innovation are ‘engines’ of progress and serve to help define success. From our beginnings in the early 1900s and throughout our one-

hundred-year commitment to excellence in education and health care, we at Loma Linda have striven to create an institution with the added dimension of worldwide influence. Our vision has always included ideas, concerns, and activities with globe-encircling aspects.”

Growth: meeting the challenge of rapid enrollment expansion

At more than 8 million residents, New York City is the most populous city in the United States. But at some time in long-ago history, the first human beings found their way to Manhattan Island and decided to call it home.

At 275 feet tall and 30 feet in diameter at its base, the General Sherman Tree in California’s Sequoia National Park is the world’s largest. Yet at some point more than 2,000 years ago, this forest giant was a single seed.

At around 4,000 students, Loma Linda University is a thriving educational center on its way to an estimated 5,000 students by 2010. Yet a hundred years ago, a handful of nursing students sat down in a primitive Loma Linda classroom for their first day of school.

Healthy, living things grow. And as enrollment at Loma Linda University has

expanded over the past century, so has growth in faculty, in curriculum, and in infrastructure.

Today, as the pace of growth accelerates into the future, the need for new facilities becomes increasingly urgent. Older buildings no longer have room to accommodate present-day classes; laboratories built decades ago are no longer adequate to serve the needs of the thousands of students attending LLU in the 21st century.

Clearly, one compelling consideration in the decision to build the Centennial Complex is the need to replace outdated facilities with an educational center offering not only greatly needed new classroom and lab space but the latest in teaching and learning aids.

Innovation: providing the best tools for teachers and students

Cell phones. Giant-screen plasma TVs. The Internet. Blackberrys and iPods. X-Boxes and wireless computing and dashboard GPS guidance systems.

Today’s students have grown up in an era of phenomenal technological advancement. What those of a certain age see as breathtaking marvels, university students today take for granted. And these new

technologies continue to change every aspect of life: communication, entertainment, commerce, travel, and of course, education.

As a result, students now take in and process information—they learn—in entirely new ways. They are accustomed to accessing information through multiple communication and sensory pathways: visual, auditory, tactile, and others.

In the Centennial Complex, teaching and learning will take full advantage of cutting-edge multimedia technologies. Students in the “smart” classrooms of the complex will be connected to the Internet via wireless laptop computers throughout the facility. Teachers will be able to broadcast lectures and other presentations via satellite or the Internet to locations around the globe. They can also distribute information on DVDs or CDs and utilize the latest in multimedia presentations in the classroom.

Students will have the ability to review and critique on media their own progress as they simulate experiences they are likely to encounter in their future work.

The Centennial Complex will not only provide an immediate quantum leap forward in educational innovation, it will create an environment in which future technological advances can be readily implemented.

Globalization: reaching out to serve the world

From the first, Loma Linda’s mission has been to carry out the healing and teaching ministries of Jesus Christ. And from the first, those ministries were not viewed as local or even national—but global.

As a Seventh-day Adventist institution, Loma Linda bases its mission on Christ’s commission to “go into all the world.”

A major impetus driving the decision to construct the Centennial Complex is Loma Linda’s need and desire to provide the best possible tools for its students and

graduates in their worldwide service.

The challenge is clear. Even with the University’s rapidly expanding enrollment, how can it produce a sufficient number of health care professionals to reach a world population of six-and-a-half billion, growing at nearly 75 million people per year? Until recently, to serve those in need required that health care professionals—wherever on earth they might be located—be physically present to treat their patients.

But the proliferation in recent years of new technologies makes possible a “virtual presence” that exponentially increases the possibilities for serving those in need. The ideal, of course, is direct, in-person relationships between patients and their health care professionals. And while that ideal may in many settings remain practicable, it imposes limits on how many who need help can have access to it. The technological progress of recent years now makes possible an amazing expansion of communication and possibilities for remote treatment. And as these technologies become more sophisticated and available, the scope of what can be achieved globally broadens significantly.

The Centennial Complex will take full advantage of leading-edge technologies to equip students to far more effectively carry out the University’s mission to the world.

The statement issued by Drs. Behrens and Hart concludes with these words:

“The Centennial Complex enhances value for our students, faculty, and graduates. Technologically, its reach will be extensive, and it will become a powerful tool to fulfill both the educational and service dimensions of our University.”

University mission to guide design and use of new complex

Vital to the growth and development of any university are new, well-designed buildings to keep pace with the needs of an expanding enrollment—and the use of new technologies to improve the teaching-learning process.

But Loma Linda is not just “any university.” It is a center of education with a unique and driving purpose: to prepare healing professionals who will “go into all the world” and “make man whole.” In fact, amazingly enough, the Loma Linda University School of Medicine is the only medical school in the United States that



A front-view rendering of the architect’s plan for the Centennial Complex, located on the north end of campus, as prepared by Tom Elander, a senior associate with Cannon Design in Los Angeles, California.

has any mention of Christ or Christianity in its mission statement.

Because of Loma Linda's chosen mission—to continue the healing and teaching ministry of Jesus Christ—the construction of a new facility such as the Centennial Complex is based on additional considerations. Among these are:

The Teaching/Learning Equation

Both sides of the teacher-student interchange are important. But Loma Linda University nurtures a special commitment to the learning component of the teaching/learning equation. This does not suggest a reduced emphasis on quality instruction and teaching excellence but does acknowledge that too often, the learning aspect of this relationship is left to stand in the shadows.

Emerging as key factors at Loma Linda in determining how the educational process should work—and how to build and operate the facilities used for learning—are such considerations as the following:

- Individual learning styles.
- Development of learning skills.
- The experiential and interactive aspects of learning.



Raye McAnally Lofgren and Carlton Lofgren, DDS

- Student participation in “reciprocal learning exchanges.”

This last factor focuses on how students can at times become teachers—contributors, themselves in the learning process.

Dimensions of Spiritual Growth

As Loma Linda University begins its second century, it continues to hold true to its unique identity as a Christ-centered institution. Spiritual growth and development is not just an add-on—one academic component of many. It is integral to curriculum, student life, and teaching. This spiritual emphasis is embraced, appreciated, and fostered by both faculty and students.



Patti Shryock Wallace and Carleton Wallace, MD

This fundamental University value, however, is incomplete without personal engagement. Health professionals spend much of their practice time dealing with tragedy and loss, sometimes on a very personal level, and occasionally on a grand scale—as in the tsunami devastation of southern Asia or the aftermath of Hurricane Katrina.

As the Centennial Complex and its component resources are developed, special consideration is focusing on how best to prepare students to support patients and families in times of distress, grief, and loss. Ministry and mission are not peripheral or tertiary aspects of either the design or intended use of the complex—they are, and will be, central.

Adding to the Body of Knowledge

Research—adding to the sum total of knowledge in a given area—has always been a defining component of learning at any university. Clinical research and an emphasis on basic science, long an important fundamental at Loma Linda, are becoming increasingly prominent as the University grows.

Training students to conduct careful research—and providing them with the best technology both to carry out that research and to exchange information globally via a host of media—will be a key consideration in the design and function of the Centennial Complex.

Campaign co-chairs share their dream

Co-chairing the funding campaign for the Centennial Complex are two couples:



An architect's rear-view rendering of the Centennial Complex, prepared by Tom Elander, senior associate with Cannon Design in Los Angeles, California.

Raye McAnally Lofgren and Carlton Lofgren, DDS, and Patti Shryock Wallace and Carleton Wallace, MD.

For the vision of this vital, much-needed new facility to become reality—for this important center to benefit students, faculty, alumni, and patients—will require abundant and generous philanthropic support.

Under the leadership of the co-chairs, alumni from various regions of the country have formed the campaign committee to raise the needed funds.

Noting that John Burden, who a century ago played a leading role in Loma Linda's purchase and founding, was driven by a vivid dream of mission and service, the campaign committee co-chairs released a statement of their own aspirations for the new complex.

“We, too, are driven by a dream for Loma Linda. As 21st-century technology merges into the glass-and-steel superstructure of the Centennial Complex, there are certain to be ‘oohs and ah’s.’ It will be a remarkable building.

“Still, it is our hope that the dream that inspires the most, and that influences decisions of support, is the prospect of preparing graduates of superb character and highly developed professional skills—graduates who will serve with grace and compassion, who will do a superb job of extending health, healing, wholeness, and hope, in all of their dimensions, around the world.”

In addition to the co-chairs, members of the Centennial Complex campaign include: Helen and Andrew Boskind, Madison, Tennessee; Geri and Elvin Gaines, Simi Valley, California; Jackie and Ted Hamilton, Winter Park, Florida; Mary Ann and Ladon Homer, Fort Worth, Texas; Judy and John Jacobson, Deer Park, California; Linda and Ted Mackett, Oregon City, Oregon; Noni Patchett, Los Angeles, California; Annie and Gene Rathbun, Dana Point, California; Janet and Naor Stoehr, Silver Spring, Maryland; and Delmar Tonge, Modesto, California.



Richard H. Hart, MD, DrPH (left), thanks Ruthita Fike, MA (right), for support for the Centennial Complex. Participating in the presentation is B. Lyn Behrens, MBBS.

Medical Center pledges \$600,000

During the Loma Linda University Adventist Health Sciences Center president's council held Tuesday, January 24, LLUMC chief executive officer Ruthita Fike, MA, presented LLU chancellor Richard H. Hart, MD, DrPH, with a proclamation pledging \$600,000 for the Centennial Complex. The proclamation reads:

“Whereas, Loma Linda University Medical Center recognizes the unique history of Loma Linda University and the tradition of service to the local, national, and international community;

“Whereas, Loma Linda University Medical Center commemorates Loma Linda University as an institution of higher learning and its contributions to medical science that make Loma Linda University exemplary among not only Adventist institutions, but all institutions of higher learning in the United States;

“Whereas, Loma Linda University Medical Center acknowledges Loma Linda University as an institution devoted to the physical, intellectual, and spiritual well-being of all people;

“Whereas, Loma Linda University Medical Center supports the need for the Centennial Complex to further the mission and work of Loma Linda University so the complex may support the tradition of teaching excellence, whereby providing the faculty and students with access to the latest teaching technology;

“Whereas, Loma Linda University Medical Center commits \$600,000 to commemorate the one-hundred student amphitheater in the Centennial Complex;

“Whereas, Loma Linda University Medical Center requests the amphitheater be named the Loma Linda University Medical Center Amphitheater in order to signify the synergistic relationship between the sister institutions as the two entities continue to work together to further the healing ministry of Jesus Christ by meeting the physical and spiritual needs of all people;

“Whereas, the Loma Linda University Medical Center executive team pledges one-hundred percent support through personal contributions;

“Whereas, this pledge will be made manifest with approval by Loma Linda University Medical Center Board of Trustees;

“Whereas, this support and subsequent naming of the amphitheater will demonstrate, in a tangible way, the common mission of the sister institutions;

“Be it resolved that, the Loma Linda University Medical Center executive team pledges support to the future of Loma Linda University by offering this contribution, which demonstrates support for the Centennial Complex in order to continue serving all neighbors—local, national, and international—with the effort ‘to make man whole.’”



Cameroon odyssey

SIMS STUDENTS PARTICIPATE IN FIRST COMMUNITY HEALTH FAIR SPONSORED BY BATOURI ADVENTIST HOSPITAL

BY RICHARD W. WEISMEYER, MA

This trip has really made a difference in my life. I feel that we were able to do great things using the Lord's strength," says Dane McClurg, a first-year School of Dentistry student.

"This trip really has been life-changing for me because it enabled me to broaden my horizons to include different people, lifestyles, and cultures," says Sarah K. Beauchemin, a School of Allied Health Professions physical therapy student.

These comments echoed the sentiments of students and staff who trained in a Students for International Mission Service (SIMS) trip to the West African country of Cameroon during Christmas vacation, 2005.

Nearly 30 students, staff, and friends of Loma Linda University participated in the Christmas vacation project organized by Martine Polycarpe, MPH, SIMS director.

SIMS, organized in the 1960s, is a Loma Linda University service organization providing cross-cultural learning and spiritual growth through experiences in health care delivery and community development in the United States and abroad.

"We selected Batouri Adventist Hospital as the site for our annual year-end trip

A mother comforts her child while he receives a preventive injection at the health fair organized by Students for International Mission Service (SIMS) students.

because of its service and health care opportunities."

During a site visit to Batouri in September, 2005, Ms. Polycarpe and the medical staff at Batouri Adventist Hospital, headed by Andre Nda'a, MD, decided that presenting a health fair would reach and impact the greatest amount of the local population in the short time that the SIMS group could spend in Cameroon.

The primary purpose of the trip was to provide health education information in a variety of areas with a special focus on malaria prevention.

"Malaria is the number one health problem in our region," Dr. Nda'a says, "followed by respiratory infections, and parasitic problems due to water."

With that in mind, Ms. Polycarpe and the SIMS group decided to focus on malaria prevention.

"There are two effective ways of combatting malaria. One is by spraying, and the other is by having people sleep under insecticide-treated mosquito nets," Ms. Polycarpe says.

Mosquito nets cost between \$5 and \$6 each. "But the tragedy is that most of the people who live in the area where Batouri Adventist Hospital is located are unable to afford the \$6. It comes down to 'do I buy food for my family for a month? or do I buy a bed net?' This is a reality for the people who live here."

It was decided by Ms. Polycarpe and Dr. Nda'a that SIMS would provide 2,000

insecticide-treated bed nets for health fair participants. But where to raise the needed \$12,000 to purchase the bed nets?

Upon returning from her site visit, Ms. Polycarpe challenged the Sabbath school attended by many Loma Linda University students. Within a few weeks, the students had contributed approximately \$5,000 toward the project. Local churches and civic groups heard about the project. By the time the group left for Africa in mid-December, the \$12,000 had been raised. Upon their return, the SIMS group was pleasantly surprised that about \$27,000 had been donated for the Cameroon project.

"Without this community effort, our goal would never have been reached," Ms. Polycarpe states.

When the SIMS group arrived at Batouri on Sunday evening, December 16, they found that the water pump for the local water system that supplied water to the entire city was out of operation. Consequently for the next ten days, the SIMS team drew well water to supply their washing and hygiene needs.

The next morning, the group walked to the hospital—approximately 20 minutes away—to set up for the health fair that was to begin the next day.

Upon arrival at the hospital, the Loma Linda group found that the local Batouri Seventh-day Adventist Church Pathfinder club, working under the guidance of Dr. Nda'a, had constructed a large health fair

complex, complete with dividers made out of wood and palm leaves.

"What they prepared for us was absolutely amazing," Ms. Polycarpe notes. "The Pathfinders and hospital staff had made individual 'rooms' shaded by palm leaves that would seat the visitors. It was perfect for our purposes."

"The Pathfinders were excellent to work with. Not only did they help with crowd control, they served as translators."

In order to attend the health fair, local community residents obtained a photo "passport" at the hospital entrance. Fair visitors received a "visa" stamp at each of the eight stations. A fully completed passport—indicating that the guest had visited each station—entitled the holder to receive a treated mosquito bed net free of charge. Each visitor who attended the fair listened to a 20-minute talk and watched informative demonstrations at each station.

Three hundred visitors attended the fair on the first day. The second, attendance soared to more than 700 visitors.

Health stations included malaria pre-



SIMS participants and Batouri Adventist Hospital employees organized the first-ever health fair to be held in the region. More than 1,000 individuals attended the three-day fair.

vention, nutrition, dental health, physical therapy, basic hygiene, spiritual care, and respiratory infections.

"I think the fair organized by SIMS was a big event for this whole community," Dr. Nda'a says. "One of the impacts of the fair is that the hospital is now better known by the community. Some of the people in the outlying areas didn't know that our hospital existed. Now they do."

Prior to entering the fair complex, participants visited a data entry station.

"We collected baseline data about the various populations," Ms. Polycarpe says. "We wanted to find out where the people lived. We asked the visitors if they had ever had malaria, and if so, how many times. We also inquired if they had a mosquito net at home."

After the data are analyzed, School of Public Health students plan to use geographic information system (GIS) technology to map out disease patterns for the local area. The resulting information will be useful to the hospital staff and the local government.

"The SIMS involvement at Batouri Adventist Hospital gave a tremendous boost to the medical staff," says Monita Burtch, Adventist Health International country director. "Sometimes they feel that they are forgotten because they are so remotely located."

In addition to the dental health booth at the fair, School of Dentistry students, supervised by Periza Zaninovic, DDS, assistant clinical professor of dental education services for the School of Dentistry, and Perry D. Burtch, DDS, a 1989 graduate of the School of Dentistry, director of the Seventh-day Adventist dental clinic in Yaounde, treated a number of dental patients in an improvised dental clinic based in the operating room of the hospital.



Third-year dental student Matthew Carlson assists Perry D. Burtch, DDS, a 1989 School of Dentistry graduate, with a dental procedure during the SIMS visit to Cameroon.

"This was the first time that many of the local residents had ever been to a dentist," Dr. Zaninovic says. "The nearest complete dental care is in the capital city of Yaounde—a day's trip by bus or other ground transportation from Batouri."

"As a member of the dental team, I found it rewarding to work in a clinic that provided hands-on treatment," says School of Dentistry student Tyler Johnson. "But I would have to say that the most rewarding part of my trip was the dental booth at the health fair. At the fair, we taught the people about brushing and flossing. The people were absolutely enthralled with the dental health demonstrations."

The SIMS group gives high praises to the local Pathfinder club.

By the end of the first day of the health fair, the Pathfinder translators were prepared to give the lectures themselves.

"That's exactly what we wanted them to do," Ms. Polycarpe says. "We wanted them to become comfortable with the information and be able to share it with their family, friends, and community members. They gained a clear understanding about the concepts presented at the health fair," Ms. Polycarpe says.

"When people—and especially young adults such as myself—who have lived in such fortunate situations visit an environment that is totally alien to them, it can really change their lives," says Jonathan Clark, a member of the School of Medicine class of 2008. "It happened to me, and I know many who have also been transformed. The transformation opens one's eyes to the situation around them in their own city, and it creates in us a desire to help those in our own community."

"I hope that this is not the last fair SIMS will conduct at Batouri," Dr. Nda'a says. "I hope they will come back soon."

SIMS was organized in the 1960s by a group of students. Approximately 300 students from Loma Linda participate in international trips each year. Up to an additional 1,000 students become involved in local SIMS-sponsored community projects.



Dozens of children wait patiently at Batouri Adventist Hospital for the health fair to open.

BATOURI ADVENTIST HOSPITAL

Batouri Adventist Hospital is a 30-bed primary care facility located in southeastern Cameroon near the border of the Central African Republic.

Located about 300 miles from the capital city of Yaounde, Batouri Adventist Hospital is under the direction of Andre Nda'a, MD. The hospital was founded in 1991 in an old house and associated primary school buildings by a missionary physician from Romania.

This facility is now prospering, attracting patients from around the entire local area and even across the border from the Central African Republic.

The dedicated staff of fewer than 15 individuals of the Adventist Health International (AHI)-associated hospital have recently initiated a maternal and child health center for providing more effective maternal and child-health services, including nutrition rehabilitation for children. AHI is a non-profit corporation with headquarters at Loma Linda University and is designed to provide coordination, consultation, management, and technical assistance to hospitals and health care entities operated by the Seventh-day Adventist Church.

"The needs are great at Batouri Adventist Hospital," says Monita Burtch, AHI country director. "The hospital has only two stethoscopes for the whole facility. They have no x-ray machine. They are doing the best they can."

Despite the lack of equipment and adequate facilities, Batouri is recognized by the local civil authorities as having the lowest mortality rate of any hospital or clinic in the area.

"Sometimes the hospital staff feels they have been forgotten because they are so remotely located," Ms. Burtch continues. "This hospital has so much potential. The local population has a great deal of confidence in Dr. Nda'a and the hospital. We need to continue working on the infrastructure of the hospital."

Batouri Adventist Hospital is one of two Seventh-day Adventist hospitals in Cameroon. Batouri's sister institution, Koza Adventist Hospital, a 100-bed facility located in the northern part of the country.



Celebrated centenarian

101-YEAR-OLD MARGE JETTON GIVES CREDENCE TO THE VALUE OF A HEALTHY LIFESTYLE—AND ATTITUDE

BY HEATHER REIFSNYDER

She was pictured in the pages of *National Geographic*, pumping gasoline. The article discussed longevity and featured some of the world's people who have lived the longest. By showing her getting gas, they got across the point that, though she's a centenarian, Marge Jetton is still out and about, an active senior who's more active than some people her children's ages (both 70 years old). But the same month that the issue was dated—November 2005—Mrs. Jetton took a big step. After driving her Cadillac Seville around for about 11 years, she sold it. Is this a sign? Could Loma Linda's most celebrated centenarian be slipping?

Don't count on it. After all, Mrs. Jetton hasn't given up on mobility—she just takes the bus or drives other people's cars now. Getting rid of the car was a way to cut down on expenses and responsibility—not an attempt to slow down. Of course, Mrs. Jetton does admit to getting weary sometimes—she claims that watering the plants and taking out the trash can do her in—but her lifestyle belies this message. Marge Jetton gets up every morning between 4:00 and 5:00. She walks for about one mile

Loma Linda resident Marge Jetton is pictured with the *National Geographic* issue that started a storm of media attention around her.

daily and four days a week attends an exercise class in which she lifts weights.

Mrs. Jetton also has several social and volunteer commitments. On Mondays, for example, she is one of a group of volunteers with Pine Knoll Publications in Redlands that assembles and mails out tapes, CD's, and books to mission posts, individuals, and any church library in North America that requests them. The materials include recorded classes and lecture series, as well as Sabbath school classes.

Cherie Kirk, in whose home Pine Knoll meets, says Marge is as sharp as ever.

"She keeps the volunteers entertained. They visit around the table. They talk about things in the past and they talk about current issues. She has very thoughtful contributions. I enjoy listening from my desk in the other room," Mrs. Kirk says.

Mrs. Jetton is adept, attentive to detail, and light-footed on the stairs, Mrs. Kirk says. And, at 101, she's ready to learn new things. One day recently, Mrs. Jetton arrived at the volunteer room to see a new computer. She walked across the room to the machine and stroked it.

"I wish somebody would show me how to use one of these things," she said, according to Mrs. Kirk.

Pine Knoll Publication is not the only organization that benefits from Mrs. Jetton's help. As a member of the University Church of Seventh-day Adventists, Mrs. Jetton attends first service, where she sometimes serves as hostess.

A people person, Mrs. Jetton says strangers are friends you've yet to meet.

"Everybody's my friend," she says.

Marge Jetton was born Marge Hodge in 1904 in Yuba City, California. Yuba City is no metropolis now, and it was even smaller then. There weren't even sidewalks. She attended high school in Sutter City. To get there, she had to walk to the streetcar, ride it, and then walk to school from the stop. The school was near the foothills known as the Buttes. These provided an incentive for the age-old game of hooky.

"Sometimes on a nice day we just kept walking to the Buttes and didn't go to school," she remembers.

Marge graduated from high school at age 16. The same year, her father, a farmer and muleskinner, met an untimely death through a pneumonia infection. He was 39. (In a sad coincidence, Marge's younger brother also died years later at the age of 39.) To help support the family, Marge got a job. The northern California area around Yuba City grew lots of fruit, and she worked at jobs like picking and drying grapes, prunes, and cherries. After a while, she found a job in a cannery, where the money was better.

Young Marge, of course, didn't envision working in a factory all her life long—and more important, she knew she didn't want to get married without getting an education first. Seeing her mother, who worked as a hotel housekeeper, struggle along once her father died taught her that.



Mrs. Jetton is interviewed in her apartment by ABC news correspondent Gigi Stone for a segment on living longer that aired October 23 on "World News Tonight."

Marge wanted to become a teacher, but nurses training was more affordable. She planned on going to San Francisco to take a course to become a nurse. But her family was Seventh-day Adventist (had become so when Marge was nine months old), and a family friend steered her in another direction. He suggested that instead of San Francisco, she go to school at St. Helena Sanitarium, an Adventist institution located above the Napa Valley at nearby Pacific Union College.

At just under 18 years old, Marge left home and went to St. Helena Sanitarium to begin her studies. As part of her training, she worked in the dietary kitchen. Meanwhile, a young man named James was working at the sanitarium as a call boy. When the clients—who were more patients seeking lifestyle therapy and rest than hospital patients—had a need, they would ring a bell and James would come running. If they needed something to drink, he would go to the kitchen and ask for it.

While serving as call boy, James found someone he wanted to call on as a suitor.

"He took a shine to me," Marge remembers. "Of course, there you didn't do anything without a chaperone."

Despite the chaperones, and their age difference—Marge was about 18, and he was two and a half years younger than

she—romance developed. Young Ms. Hodge, however, decided to go down to Texas. There she lived and worked in the San Antonio area.

"I always wanted to take care of people," she says.

Young James, however, missed the bright young lady. He kept sending her letters: "Please come back." Now Texas is a big state; and, as Marge remembers it, there was no shortage of young fellows down there. But somehow (and Marge claims that she doesn't remember how) James convinced Ms. Hodge to come back to St. Helena. So after six months in the Lone Star State, Marge returned to California, and they later married.

They were destined to become a medical family. She was a nurse, and James dreamed of becoming a doctor.

"We were poor people all longing for an education," she recalls.

After getting married in August 1926, the couple moved to College Place, Washington, so that James could study pre-medicine at Walla Walla College. After a year there, they moved back to the St. Helena area, and James attended Pacific Union College for his second year of pre-medical classes.

During their 77 years of marriage, Mr. and Mrs. Jetton had to spend more than

their fair share of time apart. It began with the first month of their marriage, when she went to Walla Walla one month before James to begin working. Back at Pacific Union College (PUC), the trend continued. She worked about 35 miles away in Santa Rosa and lived in a boarding house during the week, returning to PUC on the weekends.

After one year at PUC, the Jettons packed up again and moved down to Loma Linda. James attended medical school, graduating in 1934. While he was taking classes and interning at San Bernardino County Hospital, Marge worked to pay tuition and expenses. During this time they also often lived apart, with Marge working everywhere from Hollywood to the Lake Arrowhead area.

Separation eventually ended, however, and in 1935 the Jettons moved south to Fallbrook, California, where he set up a general medical practice. Like Yuba City, Fallbrook was even smaller back then. There was no place to live except a hotel—two rooms for living and two rooms for the medical practice. Now, instead of going out to work at various hospitals, Marge was able to work side by side with her husband.

Though the Jettons lived in Fallbrook for only six years, it was a time of changes and firsts for the couple. In 1936 Marge gave birth to their son, James Aston Jetton Jr. (called Jim). When Jim was 3 years old, he got a big surprise—a new sister. The Jettons adopted their second child, Jane—who just happened to be the same age as Jim. They rented a house, with living quarters upstairs and the medical practice downstairs. Also in Fallbrook, Dr. Jetton finally made \$1,000 in one month and was able to afford a nurse other than his wife.

Dr. Jetton was the only medical doctor in Fallbrook; and despite the citizens of the town making their protest to the government, he was called to active military duty from 1941 until 1946. Marge was again called to be independent—a task she was quite capable of filling. For example, she and her two young children drove across the country—by themselves—to be with

James at Fort Benning, Georgia, where he was stationed. During the war years, Dr. Jetton was stationed in various places in the United States.

Dr. Jetton was also sent to Czechoslovakia for 14 months. When he returned and the family was reunited, they settled in Bellflower, near Long Beach, for the next several decades. Here their kids grew up. Eventually their family grew to include four grandchildren and two step-grandchildren.

It was also from their home base in Bellflower that the Jettons took two short-term missionary relief assignments, one in Zambia in 1962 for three months and one in Ethiopia in 1976 for three months.

In the 1980s, the couple retired and settled back in Loma Linda. They became volunteers for Loma Linda University Medical Center. In August 2003, life changed drastically. James fell in their apartment at Linda Valley Villa, a retirement community. He injured his head and later died. He was 96. The Jettons had been married two days shy of 77 years.

Growing up in Northern California,



When she has time, Marge Jetton sorts and soaks stamps off envelopes to raise money for the Voice of Prophecy, a nonprofit Seventh-day Adventist radio program.

Marge Hodge would hear the other kids at school talk about going on "vacation." She didn't know what this meant. Today, her life has come full circle. In addition to the family's mission trips to Africa, she has traveled all over the world, from China to the New Hebrides. She has experienced firsthand what a vacation is.

And now? Now she's content to sit tight in Loma Linda, unbothered by chores such

as packing and unpacking suitcases. "I don't want to go anywhere," she says. "You have to get as old as I am to understand."

The desire to understand the phenomenon of old age itself is what led *National Geographic* reporter Dan Buettner to find Marge Jetton. Writing an article about longevity, Mr. Buettner focused on three locations—Okinawa, Japan; Sardinia, Italy; and Loma Linda, California—where people tend to live longer. A Loma Linda University project, the Adventist Health Study, has discovered that California Adventists tend to live about four to 10 years longer than non-Adventist Californians. Mrs. Jetton was one of several Seventh-day Adventists featured in the *National Geographic* article on longevity. Mrs. Jetton's story has also been covered on national television news, such as CNN and ABC's "World News Tonight."

"It was fun, of course," Mrs. Jetton says. "It's something you never expected."

Likewise, few people expect to reach age 101, especially in remarkably good health like Marge Jetton. But Mrs. Jetton is proof that it can be done. She appears to be far younger than her actual age. Her remarkably healthy attitude is almost as noticeable, however.

"If you can't change it, you better like it," she says. "My motto is to try and be happy in spite of your trials. Take it to the Lord in prayer."



Marge Jetton is a faithful exerciser. She walks at least one mile every day and lifts weights several days per week.



Just add love

GROVER WILCOX FOUND THE MISSING
INGREDIENT TO LIFE THROUGH A DEVASTATING DISEASE

BY PRESTON CLARKE SMITH

Some days are better than others. Especially for Grover Wilcox. Though for him, a better day is one where he is violently sick to his stomach less than a dozen times before lunch. Sometimes the 35 different medications he takes on a daily basis do not afford him that luxury.

Yet to meet Grover Wilcox, often found greeting people in the halls of Loma Linda University Medical Center as he hobbles along with his cane, is to see a man with an inner peace that is in extreme contrast to the sometimes uncontrollable nausea, among other things, that ails him. One of those "other things" is a rare disease called Wegener's granulomatosis. WG, as Grover Wilcox calls it, has no known cause. As a young intern described to him 10 years ago, it is an autoimmune disease that attacks the lining of a person's blood vessels and destroys them. In the process it destroys lungs, kidneys, the nasal passages, and any other place where there are blood vessels. One of the most frustrating aspects of the disease is that it can affect men and women of all ages from childhood to adulthood.

By all medical reasoning, Grover Wilcox's disease should have killed him

Since Grover Wilcox was diagnosed with Wegener's in 1995, he frequents LLUMC both as a patient and as a visitor sharing God's love to others who suffer.

years ago. He was diagnosed with WG, normally fatal within months, in 1996 at Loma Linda University Medical Center, after six weeks of inconclusive tests and biopsies at two Colorado hospitals. He consistently receives blood transfusions, including 63 over 12 months spanning 2002 and 2003 alone. He has endured 34 infusions of a drug called amphotericin B that he affectionately calls "shake and bake." In most cases, after 10 doses patients are either cured or dead. Of the 35 daily medications, chemotherapy is by far the most potent. He has been taking chemo pills everyday for the last 10 years, surpassing the million milligram mark along the way.

"If you put it all in IV bags, it would stretch out over a mile," laughs Mr. Wilcox.

It's hard to imagine laughing when facing a true struggle for life and death every day. But Grover Wilcox finds the strength and peace to have joy in his life from the answer to a question he spent the first 50 years of his life wrestling with—one he wasn't able to put into words until an afternoon basketball game with a close friend visiting him in Palm Springs.

"How do you really know that God loves you?" Grover asked.

If you knew Grover Wilcox as an adult, this would seem to be a silly question. As an Adventist school teacher for 21 years, countless Bible classes and church programs had drilled all the Scriptures of God's love into his head. Unfortunately, he suffered from a disease worse than Wegener's granulomatosis from his

birth. Before he could walk he was heart-broken, realizing that neither his father nor his mother cared for him in the least. Raised in an extremely violent and abusive environment, he never knew what a home was.

The second youngest of seven children, Grover Wilcox moved more than 100 times before he reached the age of 10. His parents simply moved every time the rent was due. Living in constant fear of his father—who, years after his death was diagnosed by a psychologist as having bipolar mood disorder—and never hearing the words "I love you" from his mother, Grover learned to disappear within himself. Abandoned by their parents when he was 7, authorities placed the Wilcox children in juvenile hall for a year before his parents reclaimed them. It was a year that would sear into his mind—among countless atrocities the inhabitants inflicted upon each other—that no one wanted him, that he truly was nobody's boy.

Grover Wilcox carried that stigma with him for the next five decades. Until that day on the basketball court with his long-time friend, who looked more like the basketball itself than an athlete. His friend's simple, unhesitating answer filled Grover with a hope for which he never dared to dream.

"How do you know God really loves you?," he had asked.

"Because I'm His boy!" came the resounding answer from Jack Forsyth, then superintendent of schools in Colorado. "You have a Daddy who loves you, Grover."

It was the first time Grover actually



Grover Wilcox speaks to Jim Greek's integrative care class for second-year medical students at Loma Linda University's School of Medicine about the importance of compassion.

thought of having a father as a positive thing. He instantly knew that's what he wanted, to be His boy, too.

That desire was confirmed when he met Steven C. Stewart, MD, chief of urology at the Jerry L. Pettis Memorial Veteran's Hospital and professor of surgery at Loma Linda University School of Medicine, who for a year and a half followed every injection into Grover with a smile of encouragement during the fight to control his disease.

It's difficult to say what might be a scary episode for Mr. Wilcox, considering the things he has seen in his life. But in one of his many life-and-death struggles, Dr. Stewart touched his soul, not as a physician but as himself just another one of God's little ones.

Mr. Wilcox had developed a severe fungal infection in his sinuses. Surgery was his best option. "Best" in this case meant he had about a 5 percent chance of surviving. His doctors at Loma Linda were straightforward with him about the risks, and told him there was a very real possibility that in order to get all of the infection out they would have to remove the entire right side of his face.

When Dr. Stewart heard of the upcoming surgery, he visited Mr. Wilcox. He came

with no medical advice. He simply came to tell Grover he was there and that he loved him.

"Tell me what reaching out to other people is all about. Dr. Stewart showed me!" exclaims Mr. Wilcox. The surgery was mostly successful, and the physicians decided to try one last medication before removing Mr. Wilcox's face. That was his experience with the amphotericin B.

Since then, with 10 years of a rare and devastating disease under his belt, Grover Wilcox has found a place serving as an unofficial emissary to the dying at Loma Linda University Medical Center. Ask him about what that is like, and he will tell you story after story of people he has met in the halls of Loma Linda University Medical Center.

"The neatest thing on this planet is to be there for someone who is up against death."

Someone like Archie, who Mr. Wilcox met in 2000.

"I knew him for a year and a half, and I never should have even met him," says Mr. Wilcox. "I never eat out in the place with the waterfall, but for some reason this day I did. I noticed Archie there. I could see his silhouette, read 'big stomach.' He'd been

having severe rejections of his heart transplant. We spent that afternoon together. When he went home, his wife could see he was happy and she asked what had happened. He replied, 'I met a man named Grover. His Father told him to meet me.'

"Before Archie died, he went into a 5 1/2-week coma. I spent every day with him, and once a day he would wake up and look over at me. One day he sat bolt upright and asked for a hug. I hugged him and then he was out again. The doctors would come in and couldn't get any response out of him. Unless they asked him who was next to him. He would say in a cracked voice, 'Oh, that's Grover.'

"It's truly amazing what you see here."

It's truly amazing to see the transformation God has worked in Mr. Wilcox's life. Few have suffered the emotional and physical abuse from their parents and gone on to be hit with Wegener's granulomatosis. It gives Mr. Wilcox a unique insight into the suffering of others.

"I'm an inpatient so many times that I know that sometimes you don't want anyone to talk to you," Mr. Wilcox says. "So what I do is when I go to sit with somebody, I stay as long as they want me to. Unless they are in a coma. Then they don't have a choice."

When Grover Wilcox says,

"I know how you feel," he means it.

"The other day I vomited 75 times," he says casually.

He tells another story of one of his encounters with those he says are on the shore of the Jordan River, waiting to cross over to the promised land.

"I would sit with Dave for 8- to 12-hours a day when he came to Loma Linda for a last ditch bone marrow transplant." Dave was a farmer from Illinois, and he did not survive his disease.

"But if you talk to his family, they will tell you that Loma Linda is the next place to heaven," smiles Mr. Wilcox. "They know that Dave got that last year of life because he went to Loma Linda.

"When you meet someone on the shore of the Jordan, you might as well have known him for 35 years. You don't have a lot of time

when you're at the river. You reach out and tell them you love them. That's what people want to know. That you understand that they are suffering and that you care about and love them."

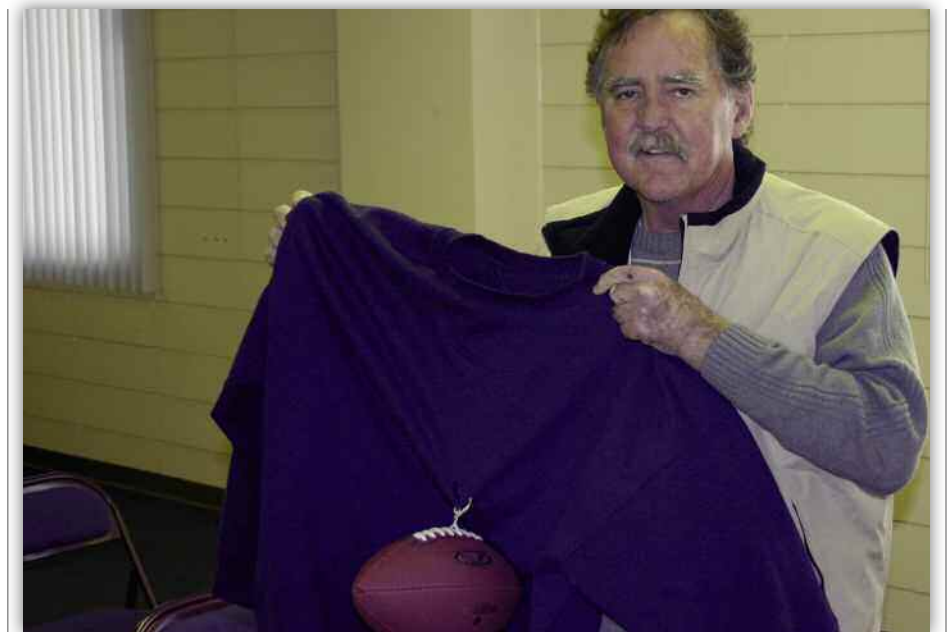
He explains the source of the love he is able to share like this:

"You're standing outside the room before talking to someone, and you feel the arms of the Creator of the Universe squeezing you until your eyeballs are about to pop out. And then He says, 'Tell them how much I love you and them.'"

Grover speaks to more than just the dying. On a chilly January morning (another day Grover found himself so sick he felt he couldn't get out of bed), he met with Jim Greek, DMin, director of chaplain services, and his integrative care class for second-year medical students at Loma Linda University's School of Medicine.

"We spent the first few classes trying to find a way to get into someone else's world," Dr. Greek explains to his students. "I met a man in 1997 who knows what suffering is, and have literally seen him touch thousands of lives since. That man is Grover Wilcox."

Mr. Wilcox tells the students the story about Archie. He shares his experiences with



Grover Wilcox shows off the ingenuity of patients with his homemade sleeping device, which came from a doctor's suggestion to place a tennis ball under his back when he slept to help him breathe. The tennis ball was too small.

Dr. Stewart. And he tells a story about the little things that make the biggest differences.

"I'm out behind the FMO lying in the gutter vomiting like a fool," begins Mr. Wilcox, "and a physician saw me and asked if he could help me. Of course there was nothing he could do to make the sickness go away. But I looked up and saw him rummaging through his red Honda, and after a few minutes he brought me a pen. It was

the prettiest pen you ever saw, and it didn't do anything for my stomach. But it lifted my spirits.

"I've seen all kinds of stuff here at the hospital that is beautiful."

He continues to tell the students about his childhood—how it took him 50 years to realize he was a child of God.

"It's important to know who you are," Mr. Wilcox explained to his now rapt audience. "You can go into a room and smile at a patient, and you have no idea how much that lifts them up. You think you're here to study bones and body parts, but the opportunity you have is different than what you think. You have the opportunity to touch souls.

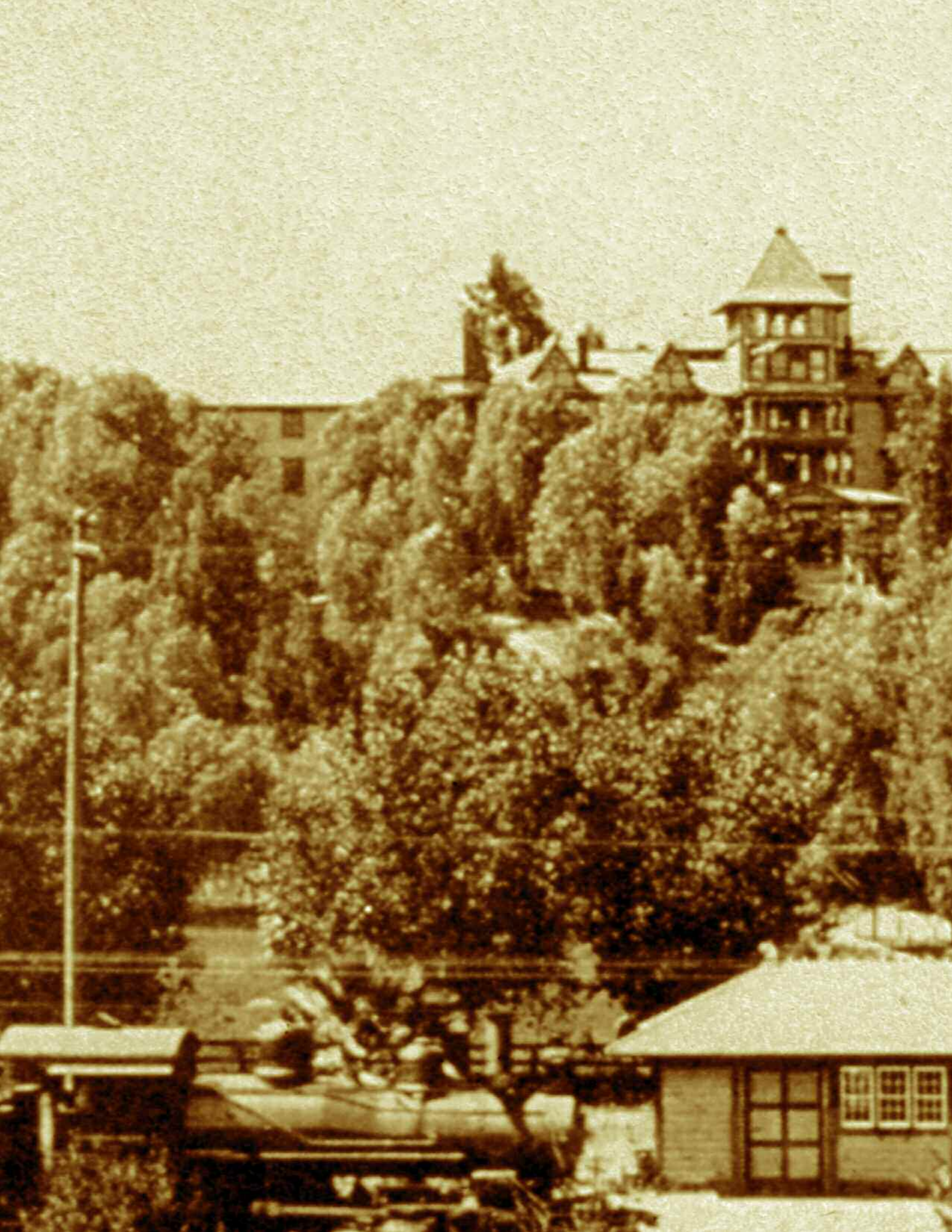
"There are a lot of little things that keep you going when you're on the edge of knocking off. Seventy-five to 80 percent of how we patients are doing is based on our frame of mind. You can help us set that frame."

"I've had more than 1,600 doctor appointments and have learned two things along the way," closed Mr. Wilcox. "There is no substitute for love. And I've learned to let people talk."

Mr. Wilcox gives an inspiring retelling of his life's story in the book *Nobody's Boy*, which he wrote for the Review and Herald Publishing Association.



Grover Wilcox has an immense love of basketball. He played so much that up to the age of 50 he could still dunk. Now his Wegener's granulomatosis makes it difficult to do anything but sit.



The emergence of research

HISTORICAL INSIGHTS FROM THE EMERGENCE
OF RESEARCH AT LOMA LINDA UNIVERSITY

BY BARRY L. TAYLOR, PHD

After the Santa Fe railroad reached Los Angeles in 1887, many new settlers from the East and Midwest came in search of a better lifestyle, health, and riches. A group of businessmen and physicians established a health resort on the hill at Loma Linda with the goal that it would be one of the finest health resorts among the many developing in Southern California.¹

The resort struggled and then failed and was offered for sale at a discounted price of \$110,000. Ellen G. White, a founder of the Seventh-day Adventist Church, had seen in a dream a very attractive property on a hill that she envisioned as a health center for the Adventist Church. She was in touch with a minister, John A. Burden, and asked him to look out for such a property in Southern California. It was Pastor Burden who found the Loma Linda property that was for sale, and later Ellen G. White said that this was the property she had seen in her dream.

When the price of the 76-acre Loma Linda property dropped to \$40,000, Pastor Burden received conflicting advice.

The train station at the base of “The Hill Beautiful” was the first view of Loma Linda for many passengers that got off there.

Without spending time to consult Church leaders, Ellen G. White advised, “Secure the property by all means, so that it can be held and then obtain all the money you can and make sufficient payments to hold the place. This is the very property we ought to have. Do not delay; for it is just what is needed. ... We will do our utmost to help you raise the money.” However, Church leaders meeting in Washington, D.C., sent Pastor Burden a wire saying, “Developments here warrant advising do not make deposit on sanitarium.”¹

Pastor Burden accepted the advice of Ellen G. White and personally borrowed \$1,000 for the deposit that secured the property, knowing that \$4,000 was due to be paid one month later, and another \$5,000 after two months. No one knew where that money would come from; but when the payments came due, the Church received unexpected donations that were just sufficient for the payments. Clearly God was leading.

The pre-research era: 1905–1922

To understand the history of research at Loma Linda University you must recognize this historical context. The Adventist Church sought to establish a major health center and a health-related educational institution without the necessary resources. They were inspired by faith that God was leading, but it was a constant struggle and the survival of the institution was often in doubt. On top of

that, the Seventh-day Adventist denomination was organized only 40 years before purchasing the Loma Linda property. The Church was on fire with a mission to save the world—a mission that included a strong emphasis on training medical missionaries to serve the evangelistic goals of the Church. Research was not considered relevant to this. The faculty had little background in traditional academic research that was characteristic of major historic universities.

The School of Nursing was the first educational program, followed in 1909 by a charter from the state of California for the College of Medical Evangelists. This established a school of medicine, but no research. The new medical school received a class C rating from the American Medical Association accrediting body in 1915, which made the students’ diplomas of little value. This was upgraded to a class B rating in 1917, still with heavy criticism of the qualifications of the faculty.^{1,3}

The era of freedom to do research: 1922–1951

In this research era, medical missionary training was still the main activity, but accrediting agencies began to mandate that the fledgling medical school make plans to include research as a component of the CME academic program. As a result, individual faculty members who were passionate about research, and able



Loma Linda's first nursing class admires the newly-arrived Richard Edward Abbott.



Elder John A. Burden was one of the few that believed, as Ellen White did, that Loma Linda would one day become a successful educational institution.

to do it with minimal resources, were given the freedom to add research to their busy schedules. Some faculty members made notable research contributions.

Newton G. Evans, MD, president of the College of Medical Evangelists from 1914 to 1927, was a graduate of Cornell University School of Medicine, and he and others recognized the importance of sending Adventist young people for training in major universities. As the quality of the faculty improved, CME received the much desired class A rating in 1922. But in the letter from the Council on Medical Education and Hospitals, research was identified as an area for improvement. "You are undoubtedly already fully familiar with the fact that improvements can be made with great advantage in the following particulars: ... the making of adequate provision whereby medical research can be carried on."

Between 1930 and 1940, pressure to improve research continued to come from accreditation requirements. Fred Zapffe, MD, of the American Medical Colleges criticized CME for the lack of credible research programs: "It is the function of

every medical school to teach and to do research, and I may add, to care for the sick in its hospitals. A teacher who has not been bitten by the research bug is not a real teacher. He merely passes on what he has read, which is not real education at all. Such teaching is being discouraged and even condemned more and more."

Pressure also came from a group of alumni who formed the Harveian society to advocate for reform at CME. Percy T. Magan, MD, dean of the School of Medicine, summarized attitudes to research in a letter to A.G. Daniells, a church leader, by stating, "I have never felt that I could conscientiously and fairly, in view of the interest of the school, take a position that we would do no research work, but in a way I have looked upon this much the same ... as I have looked upon accrediting with these worldly organizations. I have felt that it would undoubtedly be necessary to try to do a little along this line in order to keep the peace and keep our school from getting into trouble with the men who are at the helm of things medical in the United States. Nevertheless, in my soul I have had very little

regard and fondness for this thing."

With research tolerated by most and encouraged by a few, some individual faculty achieved distinction in their research during the 1940s and 1950s. They were mostly on the Los Angeles campus where students received clinical training for the MD degree. An additional boost to research was the access of CME clinical faculty to the broader world of medicine at the Los Angeles County Hospital, where they had contact with physicians from other medical schools.

Philip J. Vogel, MD, a neurosurgeon, developed a technique to sever the connections between the cerebral hemispheres to aid patients with intractable seizures. By following the patients, Dr. Vogel's collaborator Joseph Bogen, MD, and Roger Sperry, PhD, at the California Institute of Technology, began human right-and-left-brain research.

Cyril B. Courville, MD, a prominent neuropathologist and textbook author at CME, was nationally recognized for his research on concussions and head injury.

This research is still cited today. His collection of weapons associated with head injury is now housed in the Courville museum in the department of pathology.

Roger W. Barnes, MD, a urologist, pioneered endoscopic surgery and published regularly, including a well-used textbook. Dr. Barnes never retired and did not take sick leave for more than 55 years. Of the more than 200 published scientific articles, 25 were submitted after the age of 75.

H. James Hara, MD, an ENT physician, pioneered bronchoscopy. He was of Japanese-American descent and was confined during World War II.

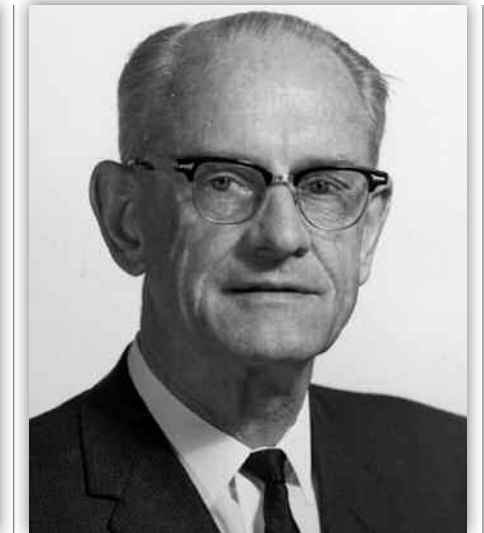
Ellsworth E. Wareham, MD, pioneered the use of the heart-lung machine in Southern California and, with C. Joan Coggin, MD, MPH, began the Loma Linda University Overseas Heart Surgery Team.

Other research physicians included Alonzo J. Neufeld, MD, in orthopaedic surgery, and Milton G. Crane, MD, and John J. Harris, MD, in the endocrinology



Newton G. Evans, MD, president of College of Medical Evangelists from 1914-1927, was also known for his research in pathology.

of hypertension. Vernon L. Nickel, MD, pioneered orthopaedic rehabilitation medicine at Rancho Los Amigos Hospital. Newton G. Evans, MD, president of CME from 1914-1927, later established a good reputation for his pathology research. Dr. Neufeld established the CME Alumni Research Foundation, in part, from royalties from the Neufeld nail used to pin hips.



Roger W. Barnes, MD, a urologist, pioneered endoscopic surgery and published regularly, including a well-used textbook.

Era of externally mandated research: 1952-1961

In this era, medical missionary training was still the main activity, but the patience of the accrediting bodies ran out and CME was unexpectedly placed under a mandate to demonstrate administrative support for research. The leadership team at CME responded positively and actively recruited faculty with research training.

At the dawn of the 1950s the Loma Linda campus of CME was known as "the farm." There was little research on this campus. Raymond A. Mortensen, PhD, persevered on metabolic studies in animals. Raymond E. Ryckman, PhD, remembers when he, Bruce W. Halstead, MD, and Harold N. Mozar, MD, approached administrators on the topic of research. After their discussion, it was clear that research was not a priority.⁴ Two important events in Loma Linda's research history would soon change that.

The first event was the formation of a School of Tropical and Preventive Medicine (STPM) in the old South Laboratory. After World War II, there was a great deal of interest in tropical medicine, and it was expected that U.S. medical schools would quickly develop expertise in this area. Dr. Mozar had directed an Army School of Tropical Medicine in New Guinea, and Walter E. Macpherson, MD, then-dean of the School of Medicine, invited him to



C. Joan Coggin, MD, MPH, and Ellsworth E. Wareham, MD (right), began the Loma Linda University Overseas Heart Surgery Team. Here, they are congratulated by U.S. Vice President Lyndon B. Johnson.



Raymond E. Ryckman, PhD (left), became the foremost authority on *Triatoma*. This work is still highly important to public health in Central and South America.

develop a School of Tropical and Preventive Medicine at CME. An upstart medical student, Bruce W. Halstead, was to be the associate director, and to continue what became his lifelong study of poisonous fish. Research and scholarly publications were prominent in the mission of the new school.²

Dr. Halstead became an internationally recognized expert in marine toxicology and his three-volume treatise on poisonous and venomous marine animals is still the definitive work in this field today. The STPM hired well and built a strong research team. Dr. Ryckman, a medical entomologist trained at University of California, Berkeley, joined the team and obtained contracts with the Army to study various vectors. He became the foremost authority on *Triatoma*, the “kissing bug” that is the vector for Chagas disease. This work is still highly important to public health in Central and South America, and as a result, the Communicable Disease Center of the United States Public Health Service republished Dr. Ryckman’s dissertation and an annotated bibliography of 23,000 references in Spanish, French, Portuguese, and English only a few years ago. This research was supported in part by funding from the World Health Organization.

Edward D. Wagner, PhD, a medical parasitologist, was also hired and studied

snails and their role in Schistosomiasis.

George A. Nelson, PhD, by improving the protocol of a Japanese scientist, was the first person to crystallize large amounts of tetrodotoxin, thereby bringing classified research to Loma Linda. Dr. Nelson supplied the crystals to Robert Woodward, PhD, a Harvard chemist, who determined tetrodotoxin’s structure, and later received the Nobel Prize in 1965.

U.D. Register, PhD, in biochemistry, was the first to prove scientifically the nutritional adequacy of the vegetarian diet, leading the American Dietetic Association to stop listing the vegetarian diet as nutritionally deficient in amino acids.

The STPM made two more important contributions. It hired Milton Murray as a public relations officer and fundraiser, launching his illustrious career. They also were the first researchers at Loma Linda to obtain National Institutes of Health (NIH) funding, although the formal peer review process that we associate with NIH was not yet in place. Mervyn G. Hardinge, MD, PhD, DrPH, appears to have been the first recipient of an NIH award under the peer review process. The STPM also developed productive links to naval and army research funding offices.

The second event that stimulated research on the Loma Linda campus was



U.D. Register, PhD, led the American Dietetic Association to stop listing vegetarian diets as nutritionally deficient in amino acids.

another unfavorable accreditation report in 1952. The Council on Medical Education was dissatisfied with the attempts to upgrade the teaching of anatomy, physiology, and pharmacology, and it mandated that CME look outside the Adventist Church and hire experienced chairs for these departments. As a result, CME hired Otto F. Kampmeier, MD, PhD, in anatomy; Charles M. Gruber, MD, PhD, in pharmacology; and J. Earl Thomas, MD, in physiology. Dr. Thomas later joined the Adventist Church. These new chairs immediately improved the teaching of basic sciences and also worked hard to foster research. They received strong support from Harold Shryock, MD, who embraced research after the 1952 accreditation report.

The new chairs worked cooperatively with CME to recruit well-trained Adventist basic scientists and then mentored them in both research and teaching. Drs. Kampmeier and Gruber were instrumental in starting the first PhD program. Early well-known recruits included Dr. Hardinge, who had received a DrPH at Harvard for his research on vegetarian nutrition, and was then sent to get a PhD in pharmacology at Stanford. He subsequently took over as chair of pharmacology, where he led out in securing external research grant funding.

Later he founded the School of Public Health with a strong emphasis on



Melvin P. Judkins, MD, started the modern cardiac angiography era.

research. The growing research emphasis in the basic sciences in the 1950s and 1960s attracted many new faculty with research interests, including Ian M. Fraser, PhD, and Leonard R. Bullas, PhD (both from Australia); R. Bruce Wilcox, PhD; Allen Strother, PhD; Joe Willey, PhD; and Brian S. Bull, MD.

Niels Björn Jørgensen, DDS, professor of oral surgery, brought international recognition of the newly established School of Dentistry by pioneering research in a new technique of dental pain control. His contributions brought profound changes to dentistry and to undergraduate dental education. Lloyd Baum, DDS, developed techniques for improving gold foil fillings and specialized instruments. Robert A. James, DDS, was a pioneer in oral implantology, including the first description of the implant-tissue interface.

Era of research fostered: 1962–1991

With the reconstitution of CME in July 1, 1961, as Loma Linda University, the university status was associated with a greater internal commitment to research as an intrinsic component of academic life. There was a growing recognition of research as a “moral” obligation to contribute to the knowledge used in teaching and service. Questions were raised as to whether an emphasis on research was at odds with the religious mission of the University. But in the discussions that fol-

lowed, both Adventist Church leaders and the University community recognized that past research had been beneficial to the Church. Furthermore, medical research and basic research that explored “God’s handiwork” were seen as supportive of the religious and service missions of Loma Linda University. With this affirmation of research, centers of research excellence were begun and flourished.

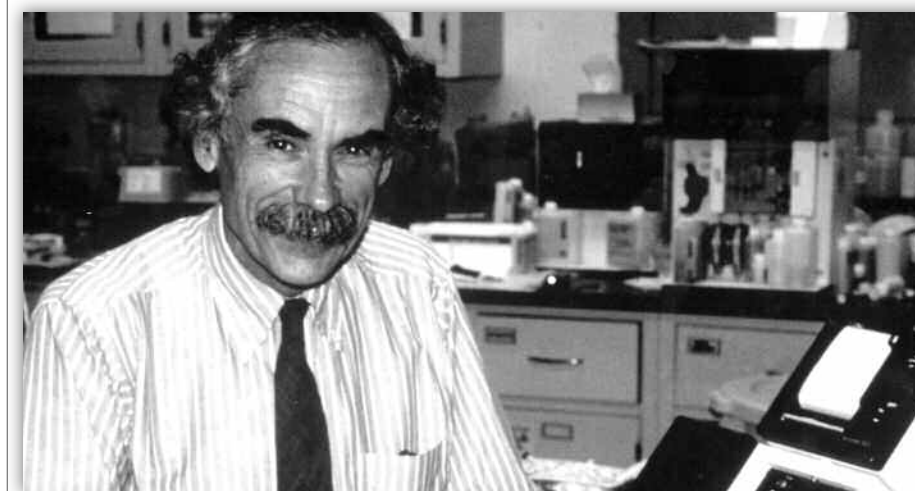
One of the administrators that fostered research was G. Gordon Hadley, MD. As a young person he made an important finding that the addition of EDTA to a tube before a blood draw would prevent clotting. That method is commonly used today. Dr. Hadley continued to have an interest in research, and as dean of the School of Medicine, he found a way to help passionate researchers get the equipment they needed. Another administrator who enabled researchers in the basic science departments was Ian M. Fraser, PhD, initially chair of physiology and pharmacology and then the vice president for academic and research affairs. He fostered a culture of support that facilitated the growth of the research faculty.

The landscape on the Loma Linda campus changed after David B. Hinshaw Sr., MD, was appointed dean of the med-

ical school and succeeded in consolidating the newly named Loma Linda University School of Medicine on the Loma Linda campus. He sought to hire more research faculty. Virchel E. Wood, MD, in orthopaedic surgery, became renowned for pioneering surgery to treat congenital hand deformities. In 1995, he received an award as “the most frequently cited author in the congenital hand literature in the last 50 years.”⁵

Melvin P. Judkins, MD, who started the modern cardiac angiography era, came to Loma Linda University as chair of the department of radiology and, because of his national reputation, developed a strong patient base—which was important not only for his continued research, but also for the income it provided for the new medical center in Loma Linda.

In 1970, Dr. Hinshaw recruited Lawrence D. Longo, MD, from the University of Pennsylvania into OB/GYN. Dr. Longo formed the Center for Perinatal Biology in affiliation with the department of physiology and pharmacology. Dr. Longo was joined by Gordon G. Power, MD, in 1972 and Raymond D. Gilbert, PhD, in 1975. Together, they established a first-rate research center—the first at Loma Linda University. It was well



Lawrence D. Longo, MD, recruited from the University of Pennsylvania into OB/GYN, helped form the Center for Perinatal Biology in affiliation with the department of physiology and pharmacology.

funded by NIH and in 1985 received the first NIH program project grant at Loma Linda University. They also trained high quality graduate students. By 1976, this was one of the best perinatal biology programs in the United States. They nurtured other scientists, always encouraging faculty to collaborate with them, and generously shared their knowledge and expertise.

Subsequently, other research centers were established at the VA Medical Center by W. Ross Adey, MD, who studied the effects of electromagnetic radiation on biological organisms; and by David J. Baylink, MD, and his mineral metabolism laboratory with its pioneering studies of osteoporosis. The VA Medical Center research programs contributed substantially to expansion of research at Loma Linda University. The faculty were hired primarily for their research skills and they brought expertise in advancing fields that were not previously available to the University. Through collaboration, providing excellent training for graduate students, and substantial teaching assignments in the biochemistry and physiology graduate programs, the VA faculty helped form a critical mass of highly trained basic science researchers.

In addition to development of research centers in the School of Medicine, another important research program developed in epidemiology in public health. Starting in 1958, Frank R. Lemon, MD, and Richard T. Walden, MD, commenced a study of 65,000 Adventists in California, with funding from the National Cancer Institute. The study investigated lifestyle elements that contribute to coronary atherosclerosis. Later the American Cancer Society funded the addition of cancer to the study. A new cohort of Adventists was enrolled in a 1973 study headed by Roland L. Phillips, MD, and Jan W. Kuzma, PhD. This study, supported by the National Cancer Institute, is known as Adventist Health Study (AHS-1). A grant to continue AHS-1 was awarded to Gary E. Fraser, MD, PhD, in 1992. In 2001 Dr. Fraser received \$18 million for what is now known as Adventist Health Study-2. Also noteworthy was the \$4 million received by Synnove M.F. Knutsen, MD, PhD, and David E. Abbey, PhD, for studies of Adventists and health risks of air pollution. These studies are among the landmark epidemiology studies supported by NIH.

Leonard L. Bailey, MD, followed this research with Baby Fae's baboon heart transplant and the numerous successful



David J. Baylink, MD, studied mineral metabolism. Here he is pictured with a patient.

infant heart transplants that were performed. This program still ranks first in the world. James M. Slater, MD, pioneered proton therapy and developed the proton accelerator in Loma Linda University Medical Center. These high profile successes brought prestige and enormous free publicity for the Medical Center and the University. The attitude toward research changed when, and for the first time, administration understood that research could be a financial benefit, not just a drain on the budget. Wolff M. Kirsch, MD, a neurosurgeon, inventor, and basic scientist, established a Neurosurgery Center for Research, Training,



Leonard L. Bailey, MD, poses for a picture with his infant heart transplant patients.

and Education. His research team develops surgical devices and studies the role of iron metabolism in the onset of Alzheimer's disease, supported by a major award from NIH.

The success of those research centers led to a centers of excellence era in the School of Medicine. The centers of excellence theme was essentially a policy that research resources would be focused in research centers. Departments were to be primarily for teaching. This resulted in targeting of research resources to investigators who were most likely to receive NIH funding.

Era of research as a mission: 1992–present

The separation in 1990 of Loma Linda University and La Sierra University as distinct universities proved to be highly beneficial to both Universities, although it was traumatic at the time it occurred. The reorganization of Loma Linda University as a health-sciences university brought focus and clarity to the mission of the University. In the discussions that preceded a revision of the mission statement for this campus in 1993, it was recognized that research should have a greater role in a health-sciences university. The new Loma Linda University mission statement boldly declared, "Loma Linda University, a Seventh-day Adventist Christian health sciences institution, seeks to further the health and teaching ministry of Jesus Christ 'to make man whole' by: ...expanding knowledge through research in the biological, behavioral, physical, and environmental sciences and applying this knowledge to health and disease." The expanded emphasis on research was formalized in 2000 by the appointment of a vice president for research affairs. The next six years saw a doubling of the competitive research awards to the institution and a substantial expansion of the research services that support faculty research.

The Schools of Dentistry and Nursing also developed research strengths in departments or programs. Ralph R. Steinman, DDS, in oral medicine, and John Leonora,



James M. Slater, MD, pioneered proton therapy and developed the proton accelerator in Loma Linda University Medical Center.

PhD, in physiology, School of Medicine, demonstrated in teeth a fluid transport system from the pulp through dentinal tubules and discovered a new hypothalamic-parotid gland endocrine system that stimulated dentinal fluid flow. Mahmoud Torabinejad, DDS, PhD, made major contributions to our understanding of the mediators of inflammation in periapical lesions of animals and humans. He was also the first investigator to bring substantial royalties to Loma Linda University. These came from an irrigant he developed to disinfect root canals and a cement for sealing root canals that became the material of choice for endodontists in America and Europe.

When former School of Nursing dean Helen E. King, PhD, RN, fostered doctoral and post-doctoral training for nursing faculty, she stimulated faculty research. This culminated in four recent NIH research awards to support faculty research. Lois H. Van Cleve, PhD, RN, is funded to study pain and its management in children with leukemia; Michael E. Galbraith, PhD, RN, was supported to study the quality of life in men with prostate cancer; Patricia L. Jones, PhD, RN, received an award to continue investigation of caregiving for elderly par-

ents in varied Asian cultures; and Betty W. Winslow, PhD, RN, is supported to research family caregivers for patients with Alzheimer's disease and the processes used to make placement decisions.

In the year 2005, Hector Betancourt, PhD, in the School of Science and Technology, received an award from NIH to study "Culture and cancer: the case of Latino women." The Faculty of Religion and the School of Public Health also received an NIH award to study the effects of spirituality on health, with Dr. Gary E. Fraser as principal investigator and James W. Walters, PhD, as co-principal investigator. As a result, for the first time in our history, every school or faculty had substantial research funding from outside the University.

The emergence of high-quality graduate programs was an important factor in research expansion at Loma Linda University. These included postgraduate programs in dentistry and the graduate program in epidemiology. After the MD/PhD combined degree was expanded, Robert Boucek, MD, and W. Barton Rippon, PhD, took graduate education to a new level of excellence with the medical scientist graduate program, in which leading researchers

from California Institute of Technology, City of Hope, and other Southern California universities were recruited to lecture on emerging areas of biomedical science and to mentor graduate student research in their laboratories. Anthony J. Zuccarelli, PhD, subsequently gave leadership in this area. Later the doctoral programs in psychology were strengthened by collaboration with faculty at California State University at San Bernardino.

The pending retirement of the post-World War II generation of faculty posed a serious challenge to American universities in the 1990s. This was also true of the basic science departments at Loma Linda University. This challenge provided an opportunity to hire faculty with excellent research training and productive postdoctoral fellowships, who were also committed to the mission of the University. Many faculty and center directors, aided by tips from faculty at Adventist colleges, helped search for the most qualified individuals, irrespective of gender or ethnic heritage. Providentially, some well-trained persons of color, whose existence was generally unknown at Loma Linda University, were interested in the mission of the University,



Gary Fraser, MD, PhD (right), pictured here with Larry Beeson, DrPH, and Joan Sabaté, MD, PhD, received an \$18 million grant for the Adventist Health Study.

and eventually enquired about positions at Loma Linda University. They also provided information about other scientists of color whom they knew and who had excellent research qualifications and an interest in the mission of the University. It was realized that many of the most qualified Adventist candidates for research faculty positions were people of color who had

pursued education and employment outside the Adventist system. Eventual hiring and retention of some of these individuals brought increased strength and diversity to the research efforts in several centers and departments and led to funding by the National Institutes of Health of a Center for Health Disparities Research, directed by Marino De Leon, PhD, at Loma Linda University in 2005.

Research at Loma Linda University has continued to expand and today the University receives almost \$40 million dollars per year for funded research programs. This expansion led to the appointment of Lawrence C. Sowers, PhD, as associate dean for basic sciences in the School of Medicine. There has also been an expansion of research services provided by the office of the vice president for research affairs. This includes an office of intellectual property and contracts that oversees processing of 200 research contracts per year and manages the intellectual property portfolio for the institution. Some patents are now producing substantial royalties. The office of research integrity was established to oversee compliance with the complex government policies that now regulate research. A human-studies educator now



LLU Center for Health Disparities Research investigators (from left) Nathan Wall, PhD (pancreatic cancer), Carlos Casiano, PhD (prostate cancer), Daisy De Leon, PhD (breast cancer), Marino De Leon, PhD (diabetes/stroke), and Susanne Montgomery, PhD, director of community partnerships and outreach core.

trains coordinators for clinical trials. The offices of sponsored research and grants management have been expanded to improve the work flow, and better coordination between the offices is now evident. Two associate vice chancellors now assist the vice president in management of the research program.

A cadre of well-trained and very talented younger faculty are setting high standards; there are now more than 100 principal investigators at Loma Linda University who receive funding from outside the University and Medical Center to support their research. This represents a healthy mix of center and department research that will continue to prosper, going far beyond the vision of our most farsighted pioneers.

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About Barry L. Taylor, PhD

BY DUSTIN R. JONES, MA

Since Barry L. Taylor, PhD, was named as the first vice president of research affairs for Loma Linda University Adventist Health Sciences Center in 2000, he has expanded the research infrastructure to support the rapid growth of research on the campus. In addition, Dr. Taylor manages the institution's growing intellectual property portfolio through the office of intellectual property and contracts. As a result, income to the University and Medical Center has increased from licensing and marketing of intellectual property. The office of research integrity was added to promote ethical conduct of research, and compliance with government and institutional policies.

Under Dr. Taylor's direction the external funding grants for the University's research program continue to grow rapidly.

After receiving his PhD degree from Case Western Reserve University, Cleveland, Ohio, Dr. Taylor was a postdoctoral research fellow at the University of California, Berkeley, and Australian National University, Canberra, Australia. He arrived on campus as an assistant professor in the department of biochemistry in 1976. He is now world-renowned for his pioneering studies of oxygen receptors in bacteria. Dr. Taylor has authored or co-authored more than 70 research articles during his time at Loma Linda.

"Since others had achieved excellence in research centers, I decided that it was important for me to demonstrate a viable research program in a department and to nurture others who shared a similar goal," says Dr. Taylor.

After becoming chair of the department of microbiology and molecular genetics in the School of Medicine in 1988, Dr. Taylor continued to lead a group of eight to 10 people who investigated oxygen receptors in bacteria. This research continues today and has been supported by NIH for more than 20 years. Dr. Taylor also recruited and mentored well-trained faculty who developed their own research programs.

Dr. Taylor was active in bringing genome bioinformatics to the University. He was also responsible for developing the Center for Molecular Biology and Gene Therapy at Loma Linda University.

"Aladar A. Szalay, PhD, took over the leadership of Center for Molecular Biology and Gene Therapy, but it was also the leadership of John J. Rossi, PhD, and Michael B. Lilly, MD, that brought the greatest benefits to this campus," says Dr. Taylor.

"As a result, my laboratory and those of other investigators were able to develop expertise in molecular biology that enabled us to get grants funded and publications that would not have been possible without the center and its core facility."

Newscope

National Geographic magazine features Loma Linda Adventists

The November 2005 issue of *National Geographic* magazine features the Loma Linda University Adventist Health Study in an article titled "The Secrets of Living Longer."

Written by Dan Buettner and photographed by David McLain, the article interviews residents of Okinawa, Sardinia, and Loma Linda—who, according to the article, "live longer, healthier lives than just about anyone else on Earth."

Mr. Buettner made several trips to Loma Linda, interviewing a number of individuals about their lifestyle.

Linda Valley Vista resident Marge Jetton, age 101, is featured prominently in the article, as is Gary Fraser, MD, PhD, a cardiologist and professor of epidemiology and biostatistics in the School of Public Health and School of Medicine. Dr. Fraser is principal investigator for the Loma Linda University Adventist Health Study.

Others pictured in the article are Ellsworth E. Wareham, MD, emeritus professor of surgery, School of Medicine, who at 91 still assists with heart surgery; Scott Smith, former associate pastor at the Uni-

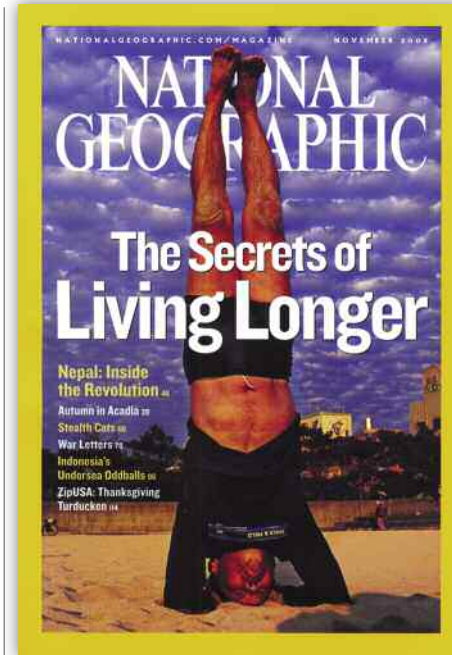
versity Church of Seventh-day Adventists in Loma Linda, and now a first-year student in Loma Linda University School of Dentistry; and Kim Rawson, an LLUMC nurse who lives in Colton.

Mr. Buettner writes that from 1976 to 1988, the National Institutes of Health "funded a study of 34,000 California Adventists to see whether their health-oriented lifestyle affected their life expectancy and the risk of heart disease and cancer."

The study found that consuming beans, soy milk, tomatoes, and other fruits lowered the risk of developing certain types of cancers.

Mr. Buettner writes: "In the end the study reached a stunning conclusion, says Gary Fraser of Loma Linda University: The average Adventist lived four to ten years longer than the average Californian. That makes the Adventists one of the nation's most convincing cultures of longevity."

Mr. Buettner concludes his article with one last question, noting that after interviewing more than 50 centenarians on three continents, "I've found every one likeable; there hasn't been a grouch in the bunch. What's the secret to a century of congeniality?"



The November 2005 *National Geographic* features the longevity of Adventists in Loma Linda. Journalist Dan Buettner visited with several Loma Linda residents for his story.

Marilyn Herrmann, PhD, RN, selected as dean of School of Nursing

In a Loma Linda University Board of Trustees action, on Wednesday, December 7, Marilyn M. Herrmann, PhD, RN, associate dean of the undergraduate program for the School of Nursing, was voted as the new dean of the School of Nursing.

The appointment of Dr. Herrmann became effective January 1 and fills the vacancy left by Helen King, PhD, RN, who is retiring.

After attending Andrews University for one year, Marilyn transferred to Columbia Union College, Takoma Park, Maryland, and graduated in 1965 with a bachelor's degree in nursing.

In March of 1980, Marilyn completed

her master's degree at LLU and began teaching at the School of Nursing. In 1989, she was asked to be the assistant dean for the undergraduate program.

Upon graduation from Claremont Graduate University, Claremont, California, with a PhD in higher education, she was promoted to associate dean. Dr. Herrmann has continued in that capacity since then.

"During these years at LLU, my greatest satisfaction has been to see more than 2,000 students become colleagues in the profession of nursing, and my hope is that these students are fulfilling the mission of the University, with God's help, 'to make man whole,'" says Dr. Herrmann.



LLU honors Helen King's 24 years as dean of SN

At a special retirement party held June 13 in Wong Kerlee International Conference Center, Loma Linda University administrators honored Helen King, PhD, RN, for her 24 years of service as dean of the School of Nursing.

Dr. King earned the bachelor of science degree in nursing in 1959 and the master of science degree in nursing and teaching in 1965 from Loma Linda University, and the doctor of philosophy degree in biology from Boston University in 1973.

In 1981, Dr. King was appointed dean of the Loma Linda University School of Nursing. She brought to this position personal devotion to the comprehensive mission of the University and unwavering commitment to excellence in the art and science of nursing. During a tenure of nearly a quarter of a century as dean—the longest in the history of the University's seven schools—her steady and capable leadership has remained grounded in the principles upon which the School of Nursing was founded a century ago.



Dr. King was given the LLUAHSC President's Award in recognition of her 24 years of service as dean of the School. Posing for a photo are, from left, B. Lyn Behrens, MBBS, president, LLUAHSC; Dr. King; Richard H. Hart, MD, DrPH, chancellor, Loma Linda University; and H. Roger Hadley, MD, executive vice president for medical affairs, LLUAHSC.

Under her leadership, the School has grown substantially in size and complexity. Included among the programs that have been added to the standard nursing curriculum during the past quarter of a century are accelerated and intensive bachelor of science degree programs designed for students with non-nursing baccalaureate preparation, a master of science degree program that offers a number of advanced-practice clinical and administration options, programs that combine nursing with master's-level study in public health and biomedical and clinical ethics, and

a doctor of philosophy degree program in nursing. In addition, off-campus degree programs are now offered in Thailand, Argentina, and Japan.

In recognition of and appreciation for her dedication, loyalty, and commitment to Loma Linda University, Dr. King was awarded the University Distinguished Service Award at the School of Nursing conferring-of-degrees ceremony this year. She also received the Loma Linda University Adventist Health Sciences Center President's Award in recognition of her 24 years of service as dean of the School of Nursing.

School of Medicine awarded \$8.1 million grant

The National Center for Health Disparities and Minority Health, National Institutes of Health awarded an \$8.1 million grant to Loma Linda University School of Medicine to establish a research center for health disparities.

The Loma Linda University Center for Health Disparities Research (LLUCHDR), received funding in October 2005 and got underway at the beginning of 2006.

The center will bring together researchers from different disciplines within the School of Medicine and the

School of Public Health. They will focus their expertise on this important national health priority through the integration of translational biomedical research, education and training, community participation, and health-related outreach activities. The center's biomedical translational research program will use molecular and cell biology techniques to study genetic and biological factors contributing to health disparities. The LLUCHDR will be the first NIH-funded center at LLU to study the contribution of an "augmented state of

cellular oxidative stress" (ASCOS) to diseases such as cancer, diabetes, and stroke that have exhibited disparities in incidence and/or mortality between different populations.

"We have to find out what treatments work better for different ethnic groups," said Roger Hadley, MD, dean of the School of Medicine. He said the NIH funding will help find better treatments and congratulated the team of researchers on their successful grant proposal at a press conference held March 1 to announce the center.

LLUMC rehab patient receives ESPY Award

Emmanuel Ofoosu Yeboah, a rehabilitation and prosthetics patient at LLUMC, received the ESPN Arthur Ashe Courage Award along with co-recipient and fellow disabled athlete Jim MacLaren on July 13 at Hollywood's Kodak Theater. The award presentation was televised July 17 at 9:00 p.m. on ESPN. Oprah Winfrey handed out the award during the 13th annual awards program hosted by Matthew Perry. The Arthur Ashe Courage Award is annually given to individuals whose contributions transcend sports.

Emmanuel Ofoosu Yeboah embodies the steel resolve of the never-give-up attitude that is the hallmark of the award and its namesake. Originally from Ghana, Mr. Yeboah, born with a severely deformed right leg, has dedicated himself to changing the historically limiting stigma associated with disability in his home country. His relationship with LLUMC began in 2002 at the East Campus Hospital-sponsored San Diego Triathlon Challenge, the largest fundraiser for the Challenged Athletes Foundation. It was here he first met Mike Davidson, a certified prosthetist at LLUMC East Campus Hospital. He and other staff encouraged Mr. Yeboah to seek evaluation for prosthetics. He received complimentary care at LLUMC East Campus Hospital. Physicians amputated his deformed leg and started him on his road to rehabilitation and a new life with a prosthetic; all the while Mr. Yeboah stayed with staff member Fabio Maia for the entire three-month rehabilitation process as a personal guest.

The prosthetics department helped design and build Mr. Yeboah's new prosthetic leg. The piece was the latest state-of-the-art artificial leg that permitted Mr. Yeboah to bike and run using various



Emmanuel Ofoosu Yeboah, from Ghana, shown preparing for the 2004 San Diego Triathlon Challenge, received the Arthur Ashe Courage Award July 13 at the 2005 ESPY Awards presented by ESPN.

adaptive devices, furthering him toward his goals in sports and beyond. The new leg has assisted Mr. Yeboah to continue the campaign for awareness in Ghana he began with his 370-mile bicycle journey across Ghana, using only one leg.

Besides Mr. Yeboah's award, two other Loma Linda University Medical Center East Campus patients were nominees for an Excellence in Sports Performance Yearly (ESPY) in the category Best Male Athlete with Disability. Rudy Garcia-Tolson and Paul

Martin, both Challenged Athletes Foundation athletes, competed in the 2004 Paralympic Games. Mr. Garcia-Tolson set the men's world record in swimming the 200-meter individual medley. Mr. Martin won one silver and one bronze medal in cycling.

The ESPY Awards gather top celebrities from sports and entertainment to commemorate the past year in sports by recognizing major sports achievements, reliving unforgettable moments, and saluting the leading performers and performances.

SPH adds public health program in Russia

On August 1, a class of more than 80 students joined a new master of public health program—the first in Russia—at Zaoksky Adventist University, 70 miles south of Moscow. More than 160 applicants competed for the spots.

The master of public health program offers two study tracks, one with a health education focus; the other focuses on research, epidemiology, and program planning, with the goal of building a public health infrastructure.

The students traveled from 11 time zones to attend classes, which meet for four weeks once a year.

"The MPH program means a lot for the people in Russia since it pays attention to

the problems in our society that were underestimated," says Eugene Zaitsev, MD, PhD, an administrator at Zaoksky and also an MPH student. "Interest in the program is great. Due to the program, the Seventh-day Adventist Church has enlarged her influence to the society."

Loma Linda University and the General Conference of Seventh-day Adventists health department also offered a six-day certificate program in health education at Zaoksky in July, training 330 participants. The goal of the conference was to train Seventh-day Adventist Church workers to effectively address problems such as drug and alcohol addictions, poor eating habits, and bogus health practices.

SN hosts 100 Acts of Caring

Centennial events for the School of Nursing this past year have included a calendar, a book, and focusing on getting information out about the School, but the School of Nursing centennial planning committee wanted to do something special to give back to the community. It was out of this desire to help others that the idea of 100 Acts of Caring was developed.

"The centennial planning committee wanted a venue and theme from which we could reach out to the community with acts of service as part of commemorating our centennial year," says Marcia Dunbar, MS, RN, assistant professor of nursing and chair of the School of Nursing centennial planning committee.

The committee partnered with Ronald D. Graybill, PhD, director of the community outreach department, LLUMC.

A theme of 100 Acts of Caring was adopted as a reflection of a desire to perform 100 acts of service within the week of October 24 to October 30.

Dr. Graybill posted a calendar of opportunities, including sites such as the San Bernardino County Food Bank, the Anderson School (for developmentally challenged students), and Curtis Middle School. Cassie Olson, School of Nursing student association community service coordinator, also lined up opportunities at Ronald McDonald House.

Many nursing students helped with the Medical Center's family health fair, offering free immunizations on Sunday, October 30. Hundreds of SN students and faculty served at the various venues.

One of the most diverse sites, and one where scores of nursing students served, was "The Gardens." The Gardens is the most intensive "hands-on" initiative of the LLUMC community outreach department. It offers after-school programs in the Norton Neighborhoods, specifically at a residence and one-acre site the Medical Center rents in San Bernardino.



Team members investigate Fossil Lake while mapping 600 square miles of Wyoming and answering questions about geological mysteries. From right: Roberto Biaggi, PhD, professor of natural sciences at Universidad Adventista del Plata in Libertador San Martin, Argentina; Robert Cushman, PhD, professor of geology in the department of earth and biological sciences, SST; and Paul Buchheim, PhD, principal investigator of the study, and professor of geology in the department of earth and biological sciences, SST.

Geologists embark on discovery journey in Wyoming

Camping atop a mountain on Fossil Butte National Monument, exploring vast lands of Wyoming, and discovering answers to geological mysteries, geology professors and students are on a journey to map 600 square miles of Wyoming.

Paul Buchheim, PhD, principal investigator of the study and professor of geology in the department of earth and biological sciences, School of Science and Technology (SST), along with co-investigators Robert Cushman, PhD, professor of geology, department of earth and biological sciences, SST, and Roberto Biaggi, PhD, professor of natural sciences at Universidad Adventista del Plata in Libertador San Martin, Argentina, recently returned from their fourth and last summer research trip to complete their \$209,000 National Park Service grant titled "Geological Mapping of Topographic Quadrangles Associated with Fossil Butte National Monument."

"The National Park Service funded the project because they want to know how far the fossil-rich layers extend beyond Fossil Butte National Monument," states Dr. Buchheim. "The maps will be the standard and used by the National Park Service, oil companies, geologists, and paleontologists, among others."

LLU is no stranger to Fossil Butte National Monument. For the past 26 years, Dr. Buchheim has studied paleoecosystems and sedimentology of Fossil Lake. In fact if

you visit the Fossil Butte National Monument museum, you'll see LLU's Dr.

Buchheim featured in the video presentation. "One outcome of this mapping project is that we've been able to answer a number of questions," explains Dr. Buchheim.

One question has been a mystery to many researchers' minds: "Was Fossil Lake ever connected with the other huge lakes that existed nearby in Wyoming?"

According to Dr. Buchheim and his team, the answer is "Yes!" Last summer they followed the layers of Fossil Lake and found that it was connected with the larger Lake Gosiute to the east.

"I've been wanting to accomplish that for a quarter of a century!" shares Dr. Buchheim. "To be able to connect two of these lakes is outstanding. It allows us to answer many more questions about the effect on plants and fish and if the connection changed the ecology of the two lakes."

The team plans to have the maps published by the state of Wyoming beginning sometime this year and to make them available online and through Geographic Information Systems (GIS).

"For the first time, we'll have a complete picture of Fossil Lake and its relations to neighboring Eocene lakes," states Dr. Biaggi. "This will be a valuable resource of the Fossil Basin region for investigators and interested individuals alike."

LLU professor helps initiate statewide physical therapy awareness program

While millions of Americans suffer from preventative injuries and pain, Everett B. Lohman III, DPTSc, OCS, and a team of fellow physical therapists are eager to help.

Associate professor of physical therapy in the School of Allied Health Professions, Dr. Lohman is also a member of the communications committee for the California Physical Therapy Association (CPTA). As such, he helped develop and implement a new program called *MoveCalifornia*.

"*MoveCalifornia* will help raise consumers' awareness of what physical therapists do," says Dr. Lohman, "and also help them learn to prevent injuries."

The CPTA jumpstarted the initiative with a presentation developed by Dr. Lohman. Titled "Back to school: Is your child's backpack making the grade?," the presentation is the first of several to promote the profession and healthy living.

Dr. Lohman and numerous SAHP physical therapy students and Redlands High School students have presented this injury prevention to health fairs, parent groups, health care provider groups, and schools in Southern California. Several physical therapists throughout California have used this presentation to reach the public to promote injury prevention.

In May 2002, the U.S. Consumer Product Safety Commission reported that backpack-related injuries sent almost 6,000 students each year to emergency rooms. Many of these were caused by the backpack weighing too much in proportion to the weight of the student. Wearing backpacks that are too heavy causes the student to deviate from a "normal" posture. These deviations cause the muscles and soft tissues of the back to work harder, leading to strain and fatigue. In addition, they can cause spinal compression and/or improper alignment, hampering the proper functioning of the discs between the vertebrae that provide shock absorption.

The recommended maximum weight of a loaded backpack is 15 percent of the student's body weight. In a study at Loma Linda University, Dr. Lohman *et al.* found that loads in excess of 15 percent of the student's body weight resulted in spinal deviations. In another study, S.R. Layer reported that 60 percent of students reported chronic back pain related to heavy backpacks. Among students who carried backpacks weighing 15 percent of their body weight or less, only 20 percent reported pain. As 15 percent of the student's body weight is the point at which spinal deviations occur and significant increase in reported chronic back pain occurs, it would seem prudent to stay



Silvia De Faria helps a boy weigh his backpack at the 2005 Loma Linda University Kid's Care Fair.

below the 15 percent level.

MoveCalifornia has grown to include educational lectures and material on the following topics: fall prevention in the elderly population, bone health for women, adolescent obesity, and preventing knee injuries in female athletes.

LLUMC offers new treatment for back pain

The first U.S. Food and Drug Administration approved artificial disc is available to patients at Loma Linda University Medical Center, the first center in the Inland Empire to offer this treatment for low back pain.

The device, the CHARITÉ™ Artificial Disc manufactured by DePuy Spine, Inc., a Johnson & Johnson company, is a high-tech replacement part for damaged or worn-out spinal discs.

"The only artificial disc that has been approved by the FDA in the United States is the CHARITÉ™," wrote Wayne Cheng, MD, orthopaedic surgeon at Loma Linda University Medical Center, in a column on the subject printed in the *San Bernardino Sun* newspaper. The CHARITÉ Artificial Disc is made of two metallic endplates and a movable high-density plastic center that is designed to help align the spine and preserve its ability to move. Spinal discs maintain the position of the spine and allow for the flexibility to bend and twist.

Lumbar spinal fusion surgery is a common surgical treatment for low-back pain or degenerative disc disease. However, this procedure limits the range of motion for patients. In clinical trials comparing artificial disc replacement to spinal fusion surgery, patients with the CHARITÉ Artificial Disc maintained flexibility, experienced improvements in pain and function, and left the hospital sooner.

Dr. Cheng cites the main benefit of the artificial disc as reduced pain for the patient. If he can't help the patient reduce pain by 80 percent or more, he won't do the procedure.

But in addition to the pain factor, the artificial disc offers greater retention of flexibility and offers a 30 percent reduced risk to the disc above the artificial replacement. In the traditional treatment of damaged discs, fusion, a greater amount of pressure fell to the disc above the fused area, leading into a cycle of disc degeneration. The artificial disc helps prevent this.

Students, staff put roof on Mexico clinic

What do flashlights, bees, and nails have in common? For those who put the roof on the Mexico health clinic, a lot. From November 16 to 20, a team from Students for International Mission Service (SIMS) volunteered their time to put the roof on the soon-to-be health clinic near Ensenada, Mexico.

The building belongs to Iglesia Adventista de Maneadero, a Seventh-day Adventist Church. Currently, SIMS provides health care in the Sabbath school rooms of the church. "Because we don't have a permanent and actual clinic, the health care LLU provides is limited," says Maxine Newell, previous coordinator of SIMS Mexico trips. So for the past two years, SIMS has helped build a permanent clinic that will benefit the region's 60 percent who cannot afford health care.

Mainly five people were involved with the construction: Buddy Keubler, residence dean; Lynette Bates, dean of women; Richard Wright, chef for the SIMS team; Greg Eiseman, nursing student; and, Claudio Japas, public health student.

"There were thousands of bees swarming around us," says Ms. Bates. "Over there, we can't just buy Raid like here."

So what did they do? They tried smoking them out, sprayed bleach and some cockroach repellent they had, but to no avail.

"It was kind of funny seeing everyone work with a cloud of bees around them," laughs Ms. Bates. All in all, three people got a bee sting.

Saturday night, the team tripled in size. Participants of the monthly SIMS health clinic showed up to help. So with flashlights in one hand and a shingle in another, SIMS accomplished enough that night to have the original five-member team complete the roof the next morning while the others held clinic.

"My goal was to get the roof on before the rains came," explains Martine Polycarpe, MPH, director of SIMS. "We're so thankful for those who came down for several days to finish it."

"The highlight of the trip was getting to



The group poses for a picture atop their finished work. (Back row, from left) Lynette Bates, dean of women; Nicolas Dahlquist, son of medical preceptors; and Buddy Keubler, residence dean; (middle) Greg Eiseman, nursing student; Lauren (Tino), local church member; Claudio Japas, public health student; (front) Tony Valenzuela, EdD, assistant professor, SAHP.

know the students in a different way," says Ms. Bates. "Claudio and Greg were there the whole time and added so much fun."

"It's fun to know that we can help the

people fulfill their dreams," shares Ms. Bates.

As for the clinic, doors will open as soon as people can paint it, put the plumbing in, and, of course, remove the bees.

LLUMC provides new option for treating depression

A device already in use to treat epilepsy seizures recently received FDA approval for use with patients with treatment-resistant depression (TRD) and is available at LLUMC. The first patient to receive the device, implanted in the left side of the chest above the heart like a pacemaker, underwent surgery on September 29, 2005. Vagus nerve stimulation (VNS) therapy has been used since 1997 to treat patients with epileptic seizures. Since then, the Houston, Texas, based company Cyberonics, which manufactures the VNS pulse generator, has tracked the mood improvement in patients implanted with the device. Through worldwide testing and research in more than 3,000 patients, 400 in the United States, Cyberonics received FDA approval for use in patients with TRD on July 15, 2005.

Renatta Osterdock, MD, neurosurgeon at LLUMC, has been performing the implant procedure since 1997 for seizure patients and placed the device for the first patient treated for TRD. Ronald Warnell, MD, associate professor of psychiatry, will be working closely with Dr. Osterdock and referring physician

Cyam Kunam, MD, from Redlands on the follow-up care for the patient. Results from the treatment typically are noticed 6- to 12-months after implantation.

"This is a treatment for people who haven't responded to multiple trials of combinations of therapy and are still depressed," says Dr. Warnell. "This is a completely different tool that can allow this group of people a better quality of life."

VNS therapy is delivered from a small pacemaker-like device implanted in the chest area that sends mild pulses to the brain via the vagus nerve in the neck. A thin, thread-like wire attached to the generator runs under the skin to the left vagus nerve. The vagus nerve, one of the 12 cranial nerves, serves as the body's "information highway," connecting the brain to many major organs. Several studies have shown that VNS therapy may modulate neurotransmitters, such as serotonin and norepinephrine, thought to be involved in mood regulation.

For more information on VNS therapy, ask your doctor, visit <www.vnstherapy.com>, or call 1-877-NOW-4-VNS.

LLU professors author award-winning book

On February 7, an anatomy text co-authored by three Loma Linda University faculty and an Andrews University faculty member won the 2005 R.R. Hawkins Award. The book, *Atlas of Clinical Gross Anatomy*, won the prestigious 2005 R.R. Hawkins Award for the most outstanding publication recognized in the Professional and Scholarly Publishing Division of the Association of American Publishers annual Awards for Excellence in Professional and Scholarly Publishing.

Now in its 30th year, these prestigious awards are given annually to recognize exceptional professional, scholarly, reference, book, journal, and electronic publishing, with awards in more than 35 categories, including the coveted R.R. Hawkins Award.

The anatomy text won the award less than a year after hitting the bookshelves,



From left, Pedro B. Nava, PhD, chair of the pathology and human anatomy department at Loma Linda University; Kenneth Moses, MD, a staff physician and assistant professor at Loma Linda University; and Darrell Petersen, with the human anatomy department at Loma Linda University School of Medicine, co-authored the award-winning text *Atlas of Clinical Gross Anatomy*.

being published in May 2005. Before winning the award, *Atlas of Clinical Gross Anatomy* began appearing in classrooms at Harvard Medical School, the University of Connecticut Medical School, and the University of Southern California's physical therapy program.

The full-color atlas was co-authored by Kenneth Moses, MD, a staff physician

and assistant professor at Loma Linda University; Darrell Petersen, with the human anatomy department at Loma Linda University School of Medicine; John C. Banks, an Andrews University professor of anatomy and physical therapy; and Pedro B. Nava, PhD, chair of the pathology and human anatomy department at Loma Linda University.

LLUCH donors give away 1,200 bicycles to underprivileged kids

On Sunday, November 13, 1,237 underprivileged fourth graders from San Bernardino and Riverside counties came to receive an early Christmas present in the form of a brand new bicycle and helmet. Each person who pledged \$200 during the October 18 and 19 Stater

Bros./KFROGGERS for Kids radiothon had the opportunity to personally award a bicycle and safety helmet to one of the children present at the event. Students were nominated by teachers and school administrators based on exceptional attitude, behavior, and academic skills or citizenship.

The event raised \$443,850 to benefit cancer patients at LLU Children's Hospital. LLUCH offers treatments for children ranging from newborns up to 18 years of age who are fighting cancer or blood disorders. Recently, bone marrow transplantation has been incorporated as the newest component of the comprehensive program. LLUCH admits more than 1,500 children to the pediatric cancer unit each year.

The bicycle-presentation ceremony took place at Arrowhead Credit Union Park in downtown San Bernardino. The bikes were made possible by financial support from Betty Crocker, Jack Link's, Keebler, and Propel.

"This is truly an incredible partnership between the corporate world and the community," says Zareh Sarrafian, MBA, administrator of Children's Hospital. "We are happy to tangibly recognize some very special kids."



More than 1,200 bicycles were lined up at Arrowhead Park for the bike giveaway as a result of the October Stater Bros./KFROGGERS radiothon.



Conference presenters pose with their traditional Indian shawls. From left to right are John Riski, PhD, Linda D'Antonio, PhD, Roopa Nagarajan, MA, MSc (on the TV screen), Karen Golding-Kushner, PhD, and David Kuehn, PhD.

LLU co-hosts video conference on CLP disorders

Loma Linda University offered a unique opportunity to speech and language pathologists on January 8 and 9. In collaboration with Sri Ramachandra Medical College & Research Institute (SRMC & RI) in Chennai, India, LLU put on a video conference on the specialty of cleft lip and palate (CLP) and the communication disorders caused by CLP. The conference marked the beginning of the sixth year of partnership between Loma Linda University and SRMC & RI in the area of communication disorders related to cleft lip and palate.

The conference came about as a result of numerous requests for advanced training in this specialty area within speech and language pathology, both in India and in the United States. Linda D'Antonio, PhD, professor, School of Medicine, and Professor Roopa Nagarajan, MA, MSc, course chairperson for the department of speech, language, and hearing sciences at Sri Ramachandra Medical College & Research Institute Deemed University, co-chaired the conference as an extension of their five-year relationship started with one of the first Smile Train centers established in 2000.

"Our lives and our clinical experience have been enriched by our collaboration, and we hope that this meeting will foster many more collaborative efforts. We welcome you all and hope that this conference will serve to increase speech services for the children with cleft lip and palate to whom we are dedicated," wrote Dr. D'Antonio and Professor Nagarajan in a welcome statement

to the more than 200 attendees between the United States and India site.

The purpose of the training, held from 6:30 to 11:00 p.m. each day in Loma Linda, and from 8:30 a.m. to 1:00 p.m. in India, was to provide specific information regarding practical clinical skills for evaluation and treatment of communication disorders in children with cleft palate. The program was designed to provide access to internationally recognized faculty in the area of cleft palate who can then serve as resources for increasing the knowledge and skills of speech and language pathologists who are involved with this population of patients.

"Caring for the cleft may put a smile on the child, but it can't help them speak," continued Professor T.K. Partha Sarathy, MD, pro Chancellor, SRMC & RI. "We need surgery and speech working together to sustain the program."

The video conference was the first part of a five-day training session in India. The next two days (January 10 and 11) included a visit to the community-based rehabilitation site at Thiruvannamalai, India, where participants focused on hands-on training in assessment and rehabilitation planning for children with cleft lip and palate. The last day of the workshop (January 12) back at SRMC & RI included group discussions, case presentations, and closing remarks.

Approximately 40 children received free speech evaluations and treatment plans as part of the extended program in India on the fourth day of the training.

SP leadership society inducts new members

Nine students and two faculty members of the School of Pharmacy were initiated to membership in Phi Lambda Sigma, the national Pharmacy Leadership Society, during a formal ceremony held November 6 at Wong Kerlee International Conference Center. The new members are Tony Nguyen of the class of 2006; Bosun Kim, Goldie Malek, Ahmad Saadat, Tara Swancoat, and Keldon Wong of the class of 2007; and Jonathan Aguilo, Nyra Balquiedra, and Elizabeth Trang of the class of 2008. Also initiated were faculty members Gamal Hussein, PharmD, and Rashid Mosavin, PhD, MBA.

The ceremony was preceded by a banquet for members and invited guests, which featured addresses by faculty member Kelly Lee, PharmD, and Avis Ericson, PharmD, administrative dean, the School of Pharmacy.

Dr. Lee's presentation was titled "Daily Lessons in Leadership." She emphasized three characteristics common to great leaders: technical proficiency, willingness to take responsibility, and the courage to set a positive example. Dr. Ericson focused on *Good to Great* by James Collins, a book that has challenged traditional concepts of leadership since its publication three years ago. Mr. Collins posits that "good" is the enemy of "great"—because it is so easy to settle for "good" and go no further; and that greatness is largely a matter of conscious choice. At the conclusion of her address, Dr. Ericson presented each Phi Lambda Sigma member an individual copy of the book.

Phi Lambda Sigma is the only national Pharmacy Leadership Society. Founded in 1965, its primary objective is to promote advancement in the pharmaceutical sciences through encouragement and recognition of superior leadership. Members are selected by peer recognition.

Loma Linda University presents centennial homecoming weekend

A special event celebrating the founding of Loma Linda University was held on November 11 to 13.

Almost 2,000 people attended the weekend's events that began with a program celebrating a century of global service at LLU and LLUMC on Friday evening. A parade of nations highlighted the evening where alumni, faculty, students, and employees were recognized for their service.

Additional events included Sabbath School and Sabbath afternoon vespers featuring mission activities. Saturday night hosted historical vignettes of LLU's past 100 years.



Dr. Hart introduces a few of the more than 50 students in Loma Linda University and the General Conference of Seventh-day Adventists deferred mission appointee program during Sabbath church services. Upon completion of residency programs, the students will be assigned to overseas mission stations.

A special brunch celebrating the contributions made by Loma Linda University alumni throughout the years wrapped up the weekend festivities.

"We maintain a commitment to mission-focused education and service," states Richard H. Hart, MD, DrPH, chancellor and chief executive officer of the University. "It is a privilege for Loma Linda to impact the world with God's love as the institution provides competent, compassionate health care both

locally and globally."

The University's centennial homecoming followed Loma Linda University Medical Center's centennial celebration held in Drayson Center during the weekend of October 14 to 16.

During that weekend, a special health care summit, hosted by Ruthita Fike, CEO and administrator, LLUMC, focused on health care issues facing not only Loma Linda University Medical Center, but also the nation in the 21st century.

Big Hearts for Little Hearts cooking school attracts 800 guests

Loma Linda University Children's Hospital Big Hearts for Little Hearts Loma Linda Guild raised more than \$100,000 at its annual cooking school featuring the culinary arts of celebrity chef Martha Green and holiday decor artist Derrick Vasquez, a fellow of the American Institute of Floral Design. Ms. Green is a Redlands resident.

The October 19 event, held on the grounds of the National Orange Show in San Bernardino, featured cooking demonstrations by Ms. Green and National Orange Show executive chef Richard Wolff.

The evening began with a holiday decor demonstration by Mr. Vasquez. He decorated several doors with colorful bows and ribbons and enhanced a number of holiday wreaths.

Mr. Vasquez's artistic work was available

for purchase following the event with the proceeds going to Loma Linda University Children's Hospital.

Ms. Green showed the attendees how to make 13 delectable menu items for holiday cooking. Each of the menu items was sampled by the attendees.

Serving at the event were approximately 60 uniformed and nonuniformed men and women. The servers represented local law enforcement agencies, fire departments, Stater Bros. employees, and employees from Loma Linda University Children's Hospital, Loma Linda University Medical Center, and Loma Linda University.

Servers collected approximately \$5,000 in tips—all of which were designated for the guild's Children's Hospital project.

Proceeds from this year's cooking school

benefited the Loma Linda University Children's Hospital pediatric intensive care unit.

Renatta Osterdock, MD, head of pediatric neurosurgery at Children's Hospital, thanked the guild and the guests attending the event for their support not only the pediatric intensive care unit, but also of all the programs at Children's Hospital.

Coordinating the event were Nancy Varner, guild president, and Debbie Brown, guild membership chair.

"This is an event our hearts are in," say Ms. Varner and Ms. Brown. "We love to do it and appreciate how much support the local community gives us and Children's Hospital.

"We are definitely looking forward to next year's event."



Vicente Bernal smiles after receiving his certificate for participating in the diabetes education study on October 25. Each participant also received \$100 for finishing the study.

SPH proves link between health education and well-being of underserved Hispanic diabetics

A study conducted by the School of Public Health has shown that diabetes education to an underserved, low-income Hispanic community of the San Bernardino area can dramatically improve health measures such as percent body fat, total cholesterol, total cholesterol/LDL ratio, and blood glucose levels.

"Many Hispanic diabetics often have limited access to diabetes education," says Zaida Cordero-MacIntyre, PhD, principal investigator in the study and assistant professor, department of nutrition, School of Public Health.

Results of the study are favorable and so far indicate significant changes in the subjects' understanding of blood sugar control, living healthfully with diabetes, and decreasing the risk of diabetes-related complications such as retinopathy, nephropathy, neuropathy, and vasculopathy.

The results of the study show significant reductions in 1) body weight, 2) hemoglobin A1C, 3) fasting blood glucose, 4) leptin, and 5) percent body fat. There was also a significant increase in HDL cholesterol.

Specifically, fasting blood sugar decreased from mean baseline values of 166 mg/dL to 143.21 mg/dL at three months.

Additionally, some participants reported that their doctor decreased or discontinued their medication for diabetes due to the fact that blood sugar had decreased significantly in these participants.

"This provided an opportunity for this population to learn the skills needed to control their diabetes and thus reduce complications," Dr. Cordero-MacIntyre says.

For the study, 34 Hispanic diabetics participated in eight hours of free diabetes education conducted in Spanish. Hispanic School of Public Health students and other Hispanic health care professionals taught the culturally sensitive lessons.

The participants also underwent baseline and three subsequent months of a series of health studies to determine the education's effect on health measures such as blood glucose control, lipid profile, and body composition.

The study was called "Impact of Diabetes Education in the Hispanic Community." The subjects were recruited from LLU SAC-Norton Clinic and the San Bernardino medical clinic of Anthony Firek, MD. Dr. Firek reported that his patients have a renewed sense of well-being and are happy as a result of having their blood sugar better under control.

School of Public Health rates among top 10 for 2005 CHES exam

The department of health promotion and education recently received national confirmation of its success in preparing students to become health educators. The National Commission for Health Education Credentialing, Inc. has listed Loma Linda University's School of Public Health among the top 10 schools with the most students/graduates passing the Certified Health Education Specialist (CHES) exam for the year 2005.

While nationally in 2005 only 79.53 percent of test-takers passed the exam, 94.44 percent of Loma Linda University test-takers were successful.

The department is very conscientious about teaching courses that place emphasis and focus on the areas of responsibilities and competencies for graduate-level health educators, says Naomi N. Modeste, DrPH, professor and chair, health promotion and education. She says the department is pleased with this accomplishment.

"We in the department of health promotion and education have dedicated much time and effort to ensure that the classes taught encompass the graduate-level responsibilities and competencies for health educators, and we are experiencing exciting results," Dr. Modeste says.

In addition to health promotion and education students, students from other majors are eligible to sit for the test if they have taken at least 37 units of health education classes.

Loma Linda University opens new medical simulation center in Risley Hall

On February 14, LLU held an open house for the new medical simulation center (MSC) in Risley Hall. The center offers medical simulations to help evaluate students, residents, and faculty on medical knowledge, procedural skills, professionalism, communication, practice-based learning, and systems-based practice.

Kent Denmark, MD, from the division of pediatric emergency medicine, is the director and driving force for getting the center up and running. The project began in October 2005 with renovations to Risley Hall.

"We want to express our gratitude for Dr. Denmark's tenacity and leadership," says Roger Hadley, MD, dean of the School of Medicine. "This is cutting-edge medical training, and we thank Dr. Denmark for putting this together both for my medical students and Dr. Giang's residents."

Dr. Denmark anticipates many University programs using the center within a few months time. Currently medical students and residents are the main users, but the opportunity for training faculty and Medical Center employees is in the future. Dr. Denmark notes that there are several simulators available including the high-fidelity SimMan, the high-fidelity SimBaby, the medium-fidelity MegaCode Kid, low-fidelity Trauma Man, and a low-fidelity OB talk trainer, all from Laerdal Medical <www.laerdal.com>. The center is also equipped with a Harvey simulator for physical diagnosis of cardiac conditions, and four IV simulators (three adult and one infant).

The center offers a fully recordable training experience through audio and video equipment. A debriefing room with a large screen allows students to watch scenarios they are not a part of and, thanks to the recording capability, it gives faculty



Kent Denmark, MD, medical simulation center director, helps a guest at the open house try the IV simulation station.

members a chance to play back the scenario and critique the many aspects of delivering medical care with the involved students after the training session is over.

Steve Dizai, the medical simulation center coordinator, can set up any number of scenarios, ranging from the pre-hospital

setting to the emergency department, the operating room, and the intensive care unit. Among the procedures that can be simulated for students are intubation, surgical airway placement, needle thoracostomy, chest tube placement, peripheral IV placement, and foley catheter placement.

Stater Bros. awards LLUMC \$7,000 grant



Bill Kemper, manager of Stater Bros. Loma Linda store, awards a nearly \$7,000 "Food for All" grant from the Stater Bros. employees to Ron Graybill, PhD, for Loma Linda University Medical Center's Norton Neighborhoods Initiative, which he directs. On the right, produce manager Don Gann joins the award ceremony, and on the left, Bill Selby, MD, a pediatric resident in LLU School of Medicine's OK Kids Program, stands with two Cypress Elementary School students in their "5-a-Day" T-shirts. Dr. Selby and his fellow residents provide one of several programs at the Norton Neighborhoods after-school site, "The Gardens," in southeastern San Bernardino. The doctors teach children good nutrition, safety, and fitness, and encourage them to eat five fruits and vegetables a day. The funds will also help distribute food from the San Bernardino County Food Bank to neighborhood families in challenging circumstances.

Chinese studies program graduates 12

The second annual graduation ceremony for the Chinese studies program students took place at Magan Hall at Loma Linda University on November 9, 2005. After the rendition of Doxology sung in Chinese, the ceremony opened with an invocation by Lisa Beardsley, PhD, MPH, vice chancellor for academic affairs, followed by welcoming remarks by Ronald Carter, PhD, dean of the School of Science and Technology.

The address was given by John B. Wong, PhD, MD, JD, director of the Chinese studies program. In the face of globalization and against the background of LLU's traditional mission and service emphasis, Dr. Wong challenged the graduates to embark on a second journey—to follow the first one just completed in Chinese studies. The second journey is to use the newly acquired knowledge of the Chinese language and culture in sharing our concept of Christian wholeness with others, and to apply the learned skills for extending God's Kingdom on earth, especially in a land of 1.3 billion people scarcely touched by the Gospel, according to Dr. Wong.

Class response was by Lynette Rivinius, RN, MS. Four students were cited

for academic excellence—Charles Lee, DDS; Ronald Forde, DDS; Lillian Lee; and Ms. Rivinius. A total of 12 students were given the program certificates, having successfully finished the required 20-24 units of studies. The graduates are Dr. Forde; Dr. Lee; Ms. Lee; Francis Li; Martein Moningka; Charles Pakpahan, MBA; Richard Pesulima; Jerry Rivinius; Ida Pakpahan; Tinneke Pesulima; Ms. Rivinius; and Sientje Widitora.

Each graduate was given a gift book, authored by Dr. Wong, titled *Healthy Prayers: Therapeutic Prayers to Lift, Heal, and Engender Wholeness*. All graduates will also receive a DVD of the ceremony.

Currently, eight undergraduate and two graduate courses, CHIN 500 and 599, are being offered by the LLU Chinese studies program throughout the year. The program has been in operation for the past three years. Some courses include an overseas or domestic cultural immersion and service-learning trip within Chinese communities. Employee tuition benefits may apply.

Those who are interested may inquire by calling (909) 558-7486.



Mariel Ravinovich (left), SIMS participant, and Liza Wahjudi, dental student, provide health care.

SIMS continues monthly Mexico mission trips

The chilly, misty morning of February 18 found a group of 17 volunteers full of a mysterious, deep-rooted excitement to head south for the SIMS monthly mission trip to Mexico. The trip was the same one, full of postcard-perfect scenes, stomach-stimulating aromas, and the sounds of mariachis and clicking cameras.

What was a little different this time was the location, the Cruz Azul District. This is a neighborhood set aside by the government for those who lost their homes after the disastrous flooding in 2005. Ironically, the morning of the clinic found the group slowed down by the rain. Fortunately, it didn't last long and the clinic opened under a rustic canopy, a trailer home porch, and one room inside the host family's trailer home.

Once the sun came out, so did the people. Between dental and medical, about 75 patients were seen—which was definitely enough to keep the team of dentists, doctors, nurses, and various students from many different schools busy. In addition to the consults and the treatment, the waiting patients were able to hear preventive health lectures that were given by some of the students.

The end of the day found all 17 volunteers headed back north on the same road but with cameras full of pictures and hearts full of satisfaction.



The Chinese studies program graduates pose with John B. Wong, PhD, MD, JD (left), director of the Chinese studies program; Lisa Beardsley, PhD, MPH (second from left), vice chancellor of academic affairs; and Ronald Carter, PhD (right), dean of SST.

Alumni notes

1950s

Roy Frederick Berrett (SM'50) was born on July 1, 1925, on the island of Jamaica in the British West Indies, and died on November 4, 2005, in San Diego, California. After graduating from the School of Medicine, Dr. Berrett married Elaine Williams, a graduate of the School of Nutrition and Dietetics (now part of the School of Allied Health Professions). To this union were born one son and two daughters: **Steven Frederick Berrett (SM'80-B)**, a radiologist; and daughters Cynthea Ann, a graduate of the physical therapy program in Loma Linda University School of Allied Health Professions, of San Diego; and Cheryl Louise, a graduate of Loma Linda University School of Nursing, of Nebraska. After internship at White Memorial Medical Center, the Berretts moved to San Diego where he was in continuous practice, except for two years in the United States Navy. He served on the USS Onslow, a seaplane tender in Japan, Hong Kong, the Philippines, and Taiwan. He also served at the United States Naval Hospital in Coronado, California. After most of his class members had retired, Dr. Berrett continued practicing until April 1988. During those years, he fulfilled his obligation in professional, civic, and church duties. At the local Sharp Cabrillo Memorial Hospital, Dr. Berrett served from time to time as chief of family practice, chief of staff, and director of the medical education staff. He also sat on the board of the San Diego Hospital Association as one of its founders. Dr. Berrett was a charter member and board member of the American Academy of Family Practice, and a fellow of the American Geriatric Society. He served as president of the Old San Diego Kiwanis Club, and chaired the committee that started a new Boy Scout troop. In addition, he raised funds for their summer camp and was vice chair of the San Diego North Shore Boy Scouts. Amidst all of this, the Berretts did not neglect their church—the Point Loma Seventh-day Adventist Church. He served



Harold Noboru Fujii (SM'53-A)
...passed away

as deacon, Sabbath school superintendent, and junior Sabbath school leader. Mrs. Berrett did her part as deaconess and Sabbath school leader and teacher. Dr. Berrett was a member of the Silvergate Yacht Club. They also enjoyed camping.

Harold Noboru Fujii (SM'53-A) passed away on May 30, 2005, in San Pedro, California. Dr. Fujii was born on March 14, 1918, in Honolulu, Hawaii, and attended McKinley High School in Hawaii. He received his undergraduate degree in microbiology and immunology from the University of Nebraska, Lincoln. After completing his medical degree at Loma Linda, Dr. Fujii served as an instructor in bacteriology and tropical medicine and was head of the virology department at the School of Medicine. He served his internship and residency programs at Harbor UCLA Medical Center in Torrance, and received additional training in respiratory diseases at Long Beach General Hospital. Dr. Fujii was a family practitioner in Gardena. He retired from that practice in 1985, but after four months decided to "unretire" and work part-time in family practice in Lomita. He loved gardening and traveling. He was a member of the

Hollydale Church of Seventh-day Adventists in South Gate. Dr. Fujii is survived by his wife Pauline of San Pedro; children Jennifer Michaelson of Long Beach, Terri McCandless of Santa Rosa, and Tim of Hawaii; brother Robert Fujii of Honolulu; sister Mary Anahu of Honolulu, and five grandchildren.

Arnold Louis Nielsen (SM'54) was born on October 15, 1920, in Ottumwa, Iowa, and died on August 16, 2005, in Loma Linda, California. After finishing high school in Cedar Falls, Iowa, he left home to attend Southwestern Junior College [now Southwestern Adventist University] in Keene, Texas. He returned home for his second year of college. Following the death of his father in 1939, he returned to the family farm and continued to work until the end of World War II. Dr. Nielsen completed his college education at Union College, Lincoln, Nebraska, in 1950. He enrolled in Loma Linda University School of Medicine, where he graduated in 1954. During this time he met Ruth Jensen Stenborn who was teaching in the School of Nutrition and Dietetics (now part of the School of Allied Health Professions). They were married on June 18, 1953. Twin sons were born in August 1954. Following completion of his internship at White Memorial Medical Center in 1955, he joined the United States Public Health Service. He served for four years in locations throughout the United States, including El Reno, Oklahoma; Washington, D.C.; and Lexington, Kentucky. During this time he developed an interest in psychiatry. In 1962 he completed a residency in psychiatry at Harding Hospital, Worthington, Ohio. He practiced in Columbus, Ohio, until 1967 when the family moved to North Attleboro, Massachusetts, where he joined the staff of Fuller Memorial Hospital. He continued to practice psychiatry until his retirement in 1987. His retirement years were plagued by poor health. He spent the last 10 years of his life in Loma Linda, where he could enjoy his grandsons and his cats. He died

on August 16, 2005, after a short illness. Dr. Nielsen is survived by his wife, Ruth Stenborn Nielsen, of Loma Linda; sons Vernon Nielsen of Loma Linda, and **Virgil J. Nielsen (SM'80-A)** of Colton; his sister, Lorraine Isley of Cedar Falls, Iowa; and two grandsons.

Crashi Mitoma Sr. (SM'58) was born June 18, 1921, in Suisun, California, and passed away on July 29, 2005, in Fontana, California. Dr. Mitoma completed a family medicine residency in 1960 and practiced in Sacramento, California until 1990. He served for 30 years as elder of his church, was a Seventh-day Adventist Conference delegate for the Northern California Conference for 10 years, and served in the mission field in Phuket, Thailand. Dr. Mitoma was a member of the American Medical Association, and of the Japanese American Citizens League.

Duane Cady (SM'59), a general surgeon of more than 30 years in upstate New York, was elected chair-elect of the board of trustees of the American Medical Association in June 2004. He has served on the board of trustees since 1999. He has served as chair of the board's committee on organization and operation of the board as chair of the compensation committee; and the board of trustees taskforce on membership. He was also president of the AMA Foundation. Dr. Cady is a 1955 graduate of Atlantic Union College, South Lancaster, Massachusetts, and was recently named to the board of trustees for Atlantic Union College. His AMA responsibilities have included membership on the Council on Medical Service (CMS), chair of the CMS committee on medical payments and review, as well as the CMS committee on health care access.

1960s

G. Gene Wilson (SD'61) has lived in Monument Valley, Utah, since 1970. Dr. Wilson served as director of the Loma

Linda University School of Dentistry extension clinic in Monument Valley from 1980 to 1982, and as an orthodontist at the same clinic from 1984 to 1989. He is currently in private practice in Monument Valley, and Kayenta, Arizona. Dr. Wilson's wife, Blanche, is widely known by the Navajo people not only because of her many years as receptionist in the dental and orthodontic clinics, giving the people of the Navajo Nation Godly love and attention; but also because she is a foster mother to 13 children. Dr. Wilson is head elder at the local Seventh-day Adventist church.

Ardis Beckner (GS'63) revised and edited several editions of the *Seventh-day Adventist Vegetarian Diet Manual*. In addition, Ms. Beckner served as an instructor in clinical nutrition at Loma Linda University for 25 years. Ms. Becker served in her spare time for six years as director of the Pathfinder Club for the Loma Linda Campus Hill Church, and as a volunteer at the Big Bear Adaptive Ski School for 16 years.

Peggy J. Fritzsche (SM'66) has joined Royal Philips Electronics in a new initiative called the simplicity advisory board (SAB), which has been created to provide an outside perspective into how the new Philips brand promise—Sense and Simplicity—can be applied to everything the company does. Dr. Fritzsche was invited to join the SAB because of her creativity and experience in the field of radiology and medical imaging, and her ability to apply it to Philips healthcare, lifestyle, and technology business. Her promotion of the importance of simple-to-use and unobtrusive technology to improve patient experiences is what led Philips to invite her to collaborate. "This sounds like a fascinating project," says Dr. Fritzsche. "I believe that my experience in improving patient experiences in a medical environment will bring something to the table when considering product experiences in any sector, whether healthcare, lifestyle, or

technology." She joins a diverse group of top professionals who are all driven by the essence of simplicity in their line of work. The SAB consists of four other members: Sara Berman, a recognized up-and-coming fashion designer; Gary Change, a prominent architect based in Hong Kong; John Maeda, a professor of technology at Massachusetts Institute of Technology; and Ken Okuyama, a creative director of the automotive and transportation department at Pininfarina, and professor at the Art Centre College of Design in Pasadena, California. Andrea Ragnette, chief marketing officer of Philips and vice chair of the SAB commented: "We are delighted that Peggy has joined this group of exceptionally talented individuals to form our first ever Philips SAB. This advisory board will enable us to take the knowledge, expertise, and creativity of people who do not necessarily work in our specific market sector, but are definitely affected by and interested in the technology and the services we provide. Listening to them, how they perceive us, and how they think we can better serve our customers, will help us to produce better products and services that are simple to use and make sense." Collectively, the SAB will act as a think tank and sounding board over the next year on sev-



Duane Cady (SM'59)
...chair-elect of AMA board of trustees



Peggy J. Fritzsche (SM'66)
...joins Royal Philips Electronics

eral projects for Philips that cover health-care, lifestyle and technology.

Oricon D. Willhite Jr. (AH'66) began his physical therapy career at Glendale Adventist Medical center in 1966. After serving for four years in the United States Army Medical Specialist Corps, Mr. Willhite entered private practice in Chico, California, until 2002, when he sold his business to Stryker Medical. He now works for Stryker Medical as a certified hand therapist and clinic director.

Marcia M. Wilson (SD'66) currently is on the School of Dentistry faculty in the department of dental hygiene. Ms. Wilson served as president of the dental hygiene alumni association from 1980 to 1981; president of the Tri-County Dental Hygienists Society from 1972 to 1973; and vice president of the California Dental Hygienists Association from 1978 to 1979. Ms. Wilson is an active member of the Loma Linda University Church where she performs with the Sanctuary Orchestra.

John W. Kizzar (SD'67) served as a missionary dentist in Okinawa, Japan, from 1967 to 1974. Currently Dr. Kizzar is a



Carolyn Riederer Annerud (SM'77-B)
...receives award for international work

dentist practicing in Hayfork, California, an underserved rural community. He has served as president of the Northern California Dental Society. Dr. Kizzar is active in his local Church as a church elder, Sabbath school teacher, and Pathfinder leader.

Suzanne Fowler Ward (SN'68) currently lives in rural San Diego County. Ms. Ward worked until 1993 continuously as a nurse in clinical, education, and managerial positions. She completed a master's degree in curriculum development in 1979 from California State University, Los Angeles, and a master's degree in nursing in 1983 from University of California at Los Angeles. Ms. Ward has stayed connected to her profession by belonging to many different nurse organizations and attending meetings. She also volunteers with the 1000 Smiles program, which provides cleft lip/palate surgery for children in Mexico and Costa Rica. She is currently pursuing a doctoral degree in psychology.

1970s

Sonya Blehm DeLange (AH'75) works part time as a volunteer for Loma Linda Broadcasting Network (LLBN). She

served as host for the first national and worldwide Sabbath broadcasts for LLBN. Sonya also hosted "Sabbath Lifestyle" and "Faith at Work" for three years. Currently, she serves as hostess and co-produces "Songs of Joy" for LLBN. Sonya also is a member of the Loma Linda University Church choir. She has been employed as a language and speech therapist in the Yucaipa-Calimesa Joint Unified School District since 1978.

Carolyn Riederer Annerud (SM'77-B) recently accepted a humanitarian award from the International Federation for Emergency Medicine for her work in Papua, New Guinea. The award, presented in June 2004 in Cairns, Australia, was presented to Dr. Annerud and her colleagues. With the support of the Australian Agency for International Development (Aus AID), the Australian College for Emergency Medicine, and the School of Medicine and Health Sciences at the University of Papua, New Guinea, a master of medicine in emergency medicine was established in Papua, New Guinea, and the country is now training its first emergency physicians. A rotating team of emergency physicians, of which Dr. Annerud was a part, has filled the position since its inception. They have provided primary trauma courses and emergency medicine teaching and consultant support for the Port Moresby General Hospital. "It is wonderful to be involved in a project like this," Dr. Annerud says, "and to see a specialty that has developed within our working lifetime making a beginning in yet another place." Dr. Annerud is the daughter of **Joseph D. Riederer (SM'59)** of Juneau, Alaska. Dr. Annerud was also presented with the American College of Emergency Physicians International Emergency Medicine Award for Individual Achievement in Emergency Medicine Development at their annual meeting held in San Francisco on October 18, 2004. The award was presented to Dr. Annerud in recognition of individual physicians who have made a considerable impact on national emergency systems in developing nations.



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