

LOMA LINDA UNIVERSITY

Dentistry



PNAM's cleft-lip angels

page 30

**Orthodontics
five decades of
progress**

page 17

**LLUSD's 54th
COMMENCEMENT**

page 11

**51st ALUMNI STUDENT
CONVENTION**

page 26

**HISTORIC VISIT FROM DPRK
COLLEAGUES**

page 37

Protecting dentists.

It's all we do.

- **Professional Liability**
- **Office Property**
- **Employment Practices Liability**
- **Workers' Compensation**
- **Life/Health/Disability**
- **Long-Term Care**
- **Business Overhead Expense**
- **Home & Auto**

Coverage specifically underwritten by The Dentists Insurance Company includes professional liability, office property, and employment practices liability. Workers' compensation, life, health, disability, long-term care, business overhead expense, home and auto products are underwritten by other insurance carriers, brokered through TDIC Insurance Solutions.

800.733.0633
tdicsolutions.com
CA Lic. #0652783





LOMA LINDA UNIVERSITY

School of Dentistry

CONTINUING DENTAL EDUCATION

Complete Mouth Rehabilitation: Principles, Concepts and Treatment Options

TONY DAHER, DDS, MSED, FACP

Associate Professor, Loma Linda University
Private Practice Limited to Prosthodontics

Synopsis

This presentation will provide attendees an evidence based approach to the management of compromised dentition. Clinical information will be presented with the aid of photographs and video clips

Date: Sunday, September 12, 2010

Time: Registration-8:30 a.m., Lecture-9:00 a.m. to 4:30 p.m.

Tuition: \$160 DDS / \$110 AUX

Location: Loma Linda University School of Dentistry

Credit: 7 hours of CA continuing dental education credit

MTA Symposium: Why, When and How to use MTA

MAHMOUD TORABINEJAD, DMD, MSD, PHD

Professor of Endodontics
Director, Advanced Education Program in Endodontics
Loma Linda University School of Dentistry

GEORGE BOGEN, DDS

Staff Endodontist, Children's Dental Health Clinic
Long Beach Memorial Hospital
Long Beach, California

AVINA PARANJPE, BDS, MS, MSD, PHD

Assistant Professor
Department of Endodontics
University of Washington, School of Dentistry

DAVID WITHERSPOON, DDS

Private Practice
Plano, Texas

SYNGCUK KIM, DDS, PHD

Louis I. Grossman Professor and Chair
Department of Endodontics
School of Dental Medicine, University of Pennsylvania

SUJUNG SHIN, MS, DDS

Assistant Professor
Department of Conservative Dentistry
Yongin Severance Dental Hospital, College of Dentistry
Yonsei University, Seoul, Korea

Date: Sunday, September 19, 2010

Time: Registration-8:30 a.m., Lecture-9:00 a.m. to 4:45 p.m.

Tuition: \$195 DDS / \$135 AUX

Location: Loma Linda University, Centennial Complex

Credit: 8 hours of CA continuing dental education credit

Dentistry in the Digital Era

Focus on cone beam technology and esthetic implant treatment

ELOY SCHULZ, MD

Professor, Radiology
School of Medicine, Loma Linda University

JAMES MAH, DDS, MS

Associate Clinical Professor, Division of
Craniofacial Sciences and Therapeutics
Director, Craniofacial Virtual Reality Laboratory
School of Dentistry, University of Southern California

JOSEPH CARUSO, DDS, MS, MPH

Associate Dean, Strategic Initiatives & Faculty Practice
Chair and Professor, Orthodontics
School of Dentistry, Loma Linda University

YOON JEONG KIM, DDS, MS

Assistant Professor, Periodontics
School of Dentistry, Loma Linda University

BERNARD GANTES, DDS, MS

Adjunct Associate Professor, Periodontics
School of Dentistry, Loma Linda University

JOSEPH KAN, DDS, MS

Professor, Restorative Dentistry
School of Dentistry, Loma Linda University

JAIME LOZADA, DMD

Professor and Director
Advanced Education in Implant Dentistry
School of Dentistry, Loma Linda University

SONIA LEZIY, DDS

Associate Clinical Professor, University of British Columbia
Private Practice Specializing in Periodontics and Implant Surgery

CHARLES GOODACRE, DDS, MSD

Dean, School of Dentistry
Professor, Restorative Dentistry
Loma Linda University

JONATHAN FERENCZ, DDS

Clinical Professor of Prosthodontics
College of Dentistry, New York University

CHRISTOPHER B. MARCHACK, DDS

Associate Clinical Professor
Department of Continuing Education
School of Dentistry, University of Southern California

Date: Sunday & Monday, October 17 & 18, 2010

Time: Registration-8:30 a.m., Lecture-9:00 a.m. to 5:00 p.m.

Tuition: Both Days: \$350 DDS \$250 AUX

Sunday Only: \$200 DDS \$150 AUX

Monday Only: \$200 DDS \$150 AUX

Location: Loma Linda University, Centennial Complex

Credit: 16 hours of CA continuing dental education credit

To register and for more information please call Loma Linda University School of Dentistry Continuing Dental Education at (909) 558-4685 or visit our website at www.dentistry.llu.edu

LOMA LINDA UNIVERSITY DENTISTRY

VOLUME 21, NUMBER 2 SUMMER/AUTUMN 2010

Dean

Charles J. Goodacre, SD '71, MSD

Editor

Edna Maye Loveless, PhD

Editor emeritus

Leif K. Bakland, SD'63

Managing editor

Douglas Hackleman, MA

Contributing editors

Rachel Terwilligar, CFRE, CSPG

David Rynearson, SD'71, MS'87

Layout consultant

Steven Park

Proofreaders

Nancy Davidson

Carole White

Alumni Association officers

PRESIDENT: Tommy L. Thompson, SD'60, MS'64

PRESIDENT-ELECT: Gregory Mitchell, SD'84

DIRECTOR: Kathleen Moore, MHIS

Mission

Loma Linda University School of Dentistry seeks to further the healing and teaching ministry of Jesus Christ by providing an environment wherein:

Students learn to provide high quality oral healthcare based on sound scientific principles

Patients receive competent care, which is preventive in purpose, comprehensive in scope, and provided with compassion and respect

Faculty, students, and staff value the patient relationship, respect diversity, and share responsibility by working together toward academic, professional, spiritual, and personal growth

Scholarly activity and research provide a foundation for evidence-based learning and enhance whole person care

The workplace environment attracts and retains a superior and diverse faculty and staff who motivate, educate, and serve

Our communities (local, global, and professional) benefit from our service, stewardship, and commitment to life-long learning.



LLUSD professors Dr. Jaime Lozada and Dr. Sean Lee (center, left and right) watch two of their Democratic People's Republic of Korea guests examine a model (See page 37).

Purpose

Loma Linda University Dentistry informs alumni, faculty, students, and other interested individuals about current School programs, events, and activities, as well as accomplishments of fellow alumni, faculty, and students. The journal is published twice each year by Loma Linda University School of Dentistry.

Addressed correspondence to:

Editor, LLU DENTISTRY
School of Dentistry
Loma Linda University
Loma Linda, CA 92350
Phone: (909) 558-4984
Fax: (909) 558-0992

Direct ad inquiries to:

LLU DENTISTRY
School of Dentistry
Loma Linda University
Loma Linda, CA 92350
Phone: (909) 558-4984

To reach the School of Dentistry
Alumni Association, contact:

Jeri Fowler, assistant director
LLUSD Alumni Association
11092 Anderson Street
Loma Linda, CA 92354
Phone: (909) 558-4399
Fax: (909) 558-4858

Admissions information:
School of Dentistry

Loma Linda University
Office of Admissions
Loma Linda, CA 92350
E-mail: DentAO@llu.edu
Phone: (800) 422-4558 or
(909) 558-4621

Cover: Three family/alumni generations celebrate: Jeremy Hoff, SD'10 (right) is congratulated by his father (left), Randy Hoff, SD'83, MS'86, president, Orthodontic Alumni Association; and grandfather, Art Morgan, SD'60, MS'63, orthodontist and 50th anniversary class member.



C O N T E N T S

T H E O D O R O U F A R E W E L L
6

2 0 1 0 C O M M E N C E M E N T
II

O R T H O D O N T I C S H I S T O R Y
17

A L U M N I S T U D E N T H O M E C O M I N G
26

P N A M ' S C L E F T L I P A N G E L S
30

D P R K H I S T O R I C G U E S T S
37

S T U D E N T R E S E A R C H W I N N E R S
44



Dean's message:

One way we express our values

One of the great privileges I have is hearing alumni speak of the remarkable educational experience they received at the School of Dentistry and how that education made a difference in their lives. Sometimes I hear parents express appreciation. Not so long ago a student's parents said to me, "We thought we were paying a lot of money in tuition so that our child could become a dentist. What we didn't know was that tuition was only a portion of what it costs to sustain the School of Dentistry." Their follow-up comment expressed true appreciation for what they had received. They continued by saying that the debt for the balance had not been fully paid and they still owed a lot in voluntary support.

There's always a question about whether we really owe our alma mater something in return for the education we received. Obligation is an interesting concept, especially when we put such emphasis in our society on self-sufficiency and personal independence. Our society honors the so-called "self made man or woman." But, I personally believe, and there are many who join me in saying, that I owe a debt of appreciation to many beyond myself. These include parents, colleagues, teachers, and mentors. To that I would add, I owe the institution that embraced me and made it possible for me to enter a profession that has enabled me to support my family well and to be an instrument of my Creator in reaching out to help others.

The citizens of no other country in the world contribute as much of their means to help others as do Americans. We are known the world over for our generosity. We respond almost instinctively and certainly with extreme generosity to tragedy. That's because giving is not just a rational response. At its best, it is also an emotional response. Giving feeds the soul and expresses what we value. Giving doesn't leave the giver depleted. It leaves the giver enriched.

Your support for the mission and programs at the School of Dentistry makes a difference. Your support helps to sustain our reputation as one of the finest dental schools in the nation and the world. Your reputation is tied to ours. When you help us make improvements in our instructional environment and facilities, you reap a benefit too. When you support our outreach in the local community or abroad, you become our partner in extending compassionate care. When you support students through scholarships and in other ways, you make an investment in the future of our school and our profession.

Making a gift can take unique forms. Conventional gifts of cash and securities constitute the usual way that most think of giving. But there are many other ways of giving that may not have occurred to you.

Planned gifts express the values of the donor, while preserving the donor's financial security. Through a tax-wise,



planned approach to giving, donors can give assets now, but actually keep the income that those assets produce and that may be needed for current personal or family support. Non-income-producing assets or low-income-producing assets can many times be turned into more productive sources of income through charitable remainder trusts.

Age has its privileges too. We have matured as a school, just as our alumni have matured. Some alumni have chosen to receive the higher rates that charitable gift annuities can provide over bank CD's. Others have chosen to create a gift annuity contract now with money they had planned to leave to the School as a bequest. By doing this they receive an income tax deduction that they will not receive from the bequest.

We recently established a planned giving recognition program unique to the School of Dentistry. Named for the founding Dean, Dr. M. Webster Prince, his society recognizes those who have expressed their intentions to include the School of Dentistry through wills or trusts and those who have made life income gifts through a charitable gift annuity or charitable trust. Membership is also open to those who may have named the School as a contingent or successor beneficiary for some portion of their IRA or qualified retirement plan assets.

Each gift, whether current or future, is an expression from the heart and a confirmation of what we value. It is human nature to seek significance and create broader meaning for our lives. We do that through our families. And we do it by supporting those organizations that have helped us on the way to our success. All of us have sat under and enjoyed the shade of a tree planted by others. By giving we acknowledge and express our gratitude for what others have done for us and we assure those benefits are available to others.

A handwritten signature in blue ink that reads "Charles J. Goodacre". The signature is written in a cursive, flowing style.

Charles J. Goodacre, SD'71, MSD
Dean

Alumni president's message:

The first 90 hours



Most American presidencies are evaluated within their first 90 days for effectiveness, initiative, and ability to work within a system to create change. I've decided to concentrate on the first 90 hours of my presidency, and report on the activities I participated in and the effect they had on me.

I became alumni President of the Loma Linda University School of Dentistry at 1:00 p.m. on Thursday, February 4, 2010, at the conclusion of the Board of Directors meeting. My unusual dual role as a member of the 50-year class of 1960 and a member of the orthodontic alumni program, also celebrating its 50-year anniversary, thrust me into a hubbub of activity.

In honor of the orthodontic program celebration, two continuing education programs were planned with the orthodontist in mind. Over 100 orthodontic alumni attended these courses, as well as the Homecoming Banquet. It was gratifying to see the orthodontic alumni turn out in such large numbers and mingle with their fellow alumni from the School of Dentistry. The hallways and amphitheatres of the new Centennial Complex were wonderfully abuzz with the calls of greeting from long-missed colleagues, the laughter of alumni catching up with each other and remembering past events, and then the quiet as the speakers made their presentations.

Thursday's banquet gave me an opportunity to associate with both the class of 1960 and the orthodontic alumni. What a wonderful experience to see so many of my friends and colleagues in one place. The banquet program featured four historical videos: the orthodontic program, the anesthesia program (which was celebrating its 25-year anniversary), the class of 1960, and the 50-year convention anniversary.

The highlight of the banquet for me was the privilege of announcing the Alumni Association's Distinguished Alumnus of the Year: J. Milford Anholm. (You can read about Dr. Anholm on pages 21, 24 and 25.) The standing ovation for Milford validated his 60 years of service to the School of Dentistry, his church, his community, and his profession.

The Friday evening student dedication program was especially memorable, as I presented Bibles to incoming students, and helped senior students slip into their white coats. The Alumni Association's donation of the Bibles and white

coats, complete with the student's name and the School's logo embroidered or embossed on each, has become an important component of the students' educational and professional lives.

My first 90 hours as president was awash in history, with four groups celebrating anniversaries, four major continuing education courses, 44 scientific sessions, the student dedication service, and alumni participation during the Sabbath School and church services. By Sunday evening, the Alumni Convention ended, and I was able to wind down from the activities. The unusual blend of School of Dentistry Alumni Association activities and the Orthodontic Alumni Association activities was historical, gratifying, and memorable. I am gratified that I was able to be a part of that!

The next 8,670 hours of my presidency will be at a slower pace, but just as meaningful. I will work with the Alumni Association Board of Directors to plan the 2011 Alumni Convention, nominate the next Distinguished Alumnus of the Year, and wrestle with the economically induced reduction in donations to the Alumni Association because of the economy. Thank you for everything that you do to support the Alumni Association. Your donations make a significant difference.

I hope to see you at the February 10-14, 2011, Alumni Convention, if not before!

Thomas L. Thompson DDS, M.S.

Tommy L. Thompson, SD'60, MS'64
President, Alumni Association

Anthony “Tony” Theodorou, SD’64: setting teeth with “mickle art”

A dentist, a banker, a basketball coach, a long-time Rialto community participant, a devoted family man, an LLUSD alumnus of the year, an alumni president, and a son of Greek immigrants, Anthony “Tony” Theodorou, SD’64, reviews his life and says simply, “I don’t know how I did it all.”

When he retired from his faculty appointment at the end of 2009, Dr. Theodorou observed, “I’m still busy,” as he continued to blend his many loyalties. The Greek connection has been a significant one. Greeks are great storytellers, as established by the enduring popularity of Homer’s *Iliad* and *Odyssey*.

Growing up, Dr. Theodorou heard stories in Homer’s tradition. His father’s odyssey included the 19-year-old’s arrival at Ellis Island from Greece in 1919 with a sign pinned to his coat. Unable to speak English, he depended on that sign to help him find a friend-of-a-friend of the family. At the end of two bus trips, he walked to a restaurant in New York’s Greek village, where the owner engaged him as a dishwasher. The pay—5 cents per hour, 10 hours per day—provided a room above the restaurant that he shared with five other employees. Dad Theodorou’s story continues to the time he opened his own restaurant in Aliquippa, Pennsylvania, a little town that was truly a melting pot of immigrants from Europe. Here Dr. Theodorou spent his first 16 years.

The battles of the *Iliad* are precursors to the war stories Dr. Theodorou’s two older brothers brought home after surviving battles in World War II. “The whole town of Aliquippa celebrated their return,” Dr. Theodorou remembers. “It went on for two months.”

At the age of 16, Dr. Theodorou moved with his family to Rialto. It was here that he met his wife, Georgia, at the Greek Orthodox Church, where the couple has been actively involved throughout their marriage of 43 years. Dr. Theodorou credits his wife with helping him engage in and complete the many endeavors he was involved in. The Theodorous are blessed with two sons, George of Irvine, who is married and has two children, and Nicholas, who lives in Santa Monica.

The stories of Georgia’s father continued in the Greek tradition. When his village was occupied by the German army, he joined others in the village

to fight German sympathizers in guerilla warfare. Facing an enemy equipped with tanks, they improvised rocks, sticks and Molotov cocktails, bodily overturning tanks with hidden fulcrums in the road, and driving tanks over cliffs, from where they had stalled.

When Dr. Theodorou returns to telling his own story, he recalls that shortly after arriving in Rialto, the father of 16-year-old Anthony became ill. His illness changed the fortune of the high school senior, who had been accepted at UCLA in an aeronautical engineering program. Determined to stay near home, Dr. Theodorou studied at San Bernardino Valley College for two years, where he identified his affinity for science and helping people as the appropriate role for a dentist. At 19, shortly after his father’s death, he entered LLUSD, and became at that time the School’s youngest-ever graduate and member of the class of 1964.

Dr. Theodorou established a practice in his hometown of Rialto. Then in 1973 he began



Dr. Theodorou and his wife Georgia



Dr. Doug Roberts, chair, Restorative Dentistry, presents a plaque of appreciation to Dr. Theodorou

a 12-year part-time affiliation at LLUSD, before assuming in 1987 a full-time restorative dentistry appointment that continued for 23 years.

His affinity for removable prosthetics placed him principally with D-2 and first quarter D-3 students, again as a coach introducing them to work on typodents and manikins. As class sizes increased and instruction centered on small group interaction, he recalls the scramble for classroom space, "We even had class in the hallway once or twice." He reflects, "My reward for teaching is seeing the maturation of students and their success in later years. I feel blessed to know I have had a little to do with that."

Coming to LLUSD with a positive sense of community awareness, Dr. Theodorou coached, managed, and raised funds for Rialto North Little League for 30 years; for 12 years he gave similar support to the Golden State Basketball League. Why did he do it? There was his commitment to helping children, his knowledge of the game, and some core values in life that attracted him to the task. His enthusiasm for sports, spilled over into the pursuits of his sons, George and Nicholas, both of whom attended UCLA. On a baseball scholarship at the university, Nicholas became a recruited walk-on, drafted by the Los Angeles Dodgers in 1998, and played in the Dodgers' minor league system, becoming an all-star in Triple A league in 2004.

His baseball expertise and Greek heritage played a role in Nicholas' going to the 2004 Olympics in Greece to play baseball for the Greek National Olympic team. Dr. Theodorou explains, "The originators of the Olympics didn't play baseball. Neither do modern Greeks." A Homer, to them, is the creator of *Odysseus*. But the 2004 Greeks, determined to launch a Greek baseball presence, benefited by lenient citizenship rules afforded to Olympic host countries to recruit Americans for their team. Only one member of the 24-man team had a Greek resident parent and lived in Greece (with his American father). Dr. Theodorou and his family were on site to see son Nicholas serve as the first ever batter for the Greek team, which scored a single win against Italy during the games.

"I'm still busy," Dr. Theodorou says. He continues his activities at the Greek Orthodox Church and his responsibilities in the Inland Community Bank, which he helped found. And he welcomes the opportunity to spend more time with his grandchildren. He still has one foot in the LLUSD door, however. He comes back to the School when called upon to oversee dental students' introduction to removable dentures, simulating what they are going to do in the clinic. He cites his personal satisfaction with managing and producing quality care. It seems appropriate to characterize his work using words of his forefather, Homer. Describing Ulysses, arrayed in armor, wearing a helmet of fine craftsmanship and skill, he notes the "many white boar's teeth gleaming about it, well set with *mickle* [much] *art*."



LOMA LINDA UNIVERSITY
School of Dentistry

Save the date... Open House for the NEW Faculty Dental Practices

Join us in opening the faculty dental practices
at its new location.

Center for Dentistry and Orthodontics
159 Hospitality Lane, San Bernardino, CA 92408



The practice will continue in a premier location for comprehensive dental care, providing patients with a full spectrum of oral healthcare specialties: dental hygiene, general dentistry, oral surgery, periodontics, prosthetic dentistry, implants, sleep apnea therapy, oral medicine, oral sedation, orthodontics, and pediatrics.

It serves patients of all ages, from children through seniors; and its patients will be cared for in a state-of-the-art facility, designed for patient comfort.

Open House: November 10, 2010
12:00 – 5:00 p.m.

Ribbon Cutting Ceremony
12:00 p.m.

Refreshments will be served, immediately following.



Clinic With A Heart number 20

It's 38 degrees at 12:30 a.m. when Michael, Tashie, and Irene drive from Grand Terrace to Loma Linda. They become the first in line at LLUSD's Clinic With a Heart on January 24, 2010. For warmth, they rotate in and out of the car, under the watchful eyes of the overnight crew supervised by Kevin Staff, who has set up the clinic's outdoor security system.

The first patients watch as others arrive: two from Anaheim and Barstow pull in after them. Dorothy, arriving at 3 a.m., has come from Inglewood. She has been here before, and she hastens to add, "I was here for a filling. You get good treatment. The doctors oversee the work."

Holding his chin, the man from Fontana (arrival 6:15) admits, "I haven't seen a dentist in seven years." He is sitting in a tent with 300 chairs rapidly filling. The tent, chairs, tables, trash cans, floodlights, and pop-up tents for staff were set up by the University engineering team providing free assistance in a driving rain on Friday, two days earlier.

When the nursing student team arrives with blood pressure instruments, the crowd has grown in spite of the cold. The nursing students, under the supervision of Dr. Dee Hart, associate dean, LLU undergraduate nursing program, and Esther Valenzuela, a nurse as well as an LLUSD admissions director, will be taking blood pressure readings in the initial screening. Self-reported needs go on a chart, and the patient receives a color bracelet to indicate "pediatric patient," "cleaning candidate," or "filling/extraction possibility."

Inside Prince Hall, lights come on in the clinics. Approximately 200 operatories in seven clinics are being readied for patients. By 7 o'clock the first 30 patients gain respite from the cold as they enter Prince Hall. By 10 a.m. more than 200 will have passed through the radiology clinic. There a 20-year veteran of Clinic With a Heart, Carol Sorrells, supervisor of radiology, has organized a team of 11 volunteers to work with Reggie Padgett, SD'82, assistant professor, Restorative Dentistry, who oversees x-ray procedures.

In the south wing clinic, 16 dentists are at work. Dr. Hanan AL-Haddadin from Jordan, a 10-month student in the IDP program, expects to do fillings and extractions. Dr. Harveer Kaur of India is volunteering at an IDP operatory; she has applied to attend LLUSD's IDP program. Having explored several IDP programs, she announces firmly, "I want to get in this school only." She's looking forward to using her dental skills today.

Lines form on the right and left of the hallway leading to the main clinic. Forty-one dental hygiene students and 158 dental students await their patients. Rebecca Schomburg, DH'10, admits, "I slept through two alarms. It's Sunday, after all!"

Why is Scott Arceneaux, SD class of 2011, here? "I love helping people," he says simply. "I love to manage people with trauma. It's my favorite thing in the world. I love the challenge."

He emphasizes the importance of having a relationship with a patient. "It's a lot about empathy," he adds. "This program is good for the community. It's a tough time for people right now." Scott finds his patient and heads for the clinic.

One hundred percent of the residents, faculty, and staff of the oral/maxillofacial program are in the oral/maxillofacial surgery clinic, according to Zolton Horvath, manager of the



DH'11 volunteer trio: Heather Dunn, Michelle Rich, and Jessica Kubrock

oral/maxillofacial clinic. Clinic With a Heart will process 120 simple extractions and 14 surgical extractions today. When screening in the x-ray clinic ends, that area will also be used for surgery.

Gathered in a tight circle, ten dental assistant students listen as their teacher, Dawn Klein of Baldy View Regional Occupational Program, prepares them. "Are you going to be



Edward Ko, SD'85, supervises Bryan Horgan SD'10.

nervous?" she asks. "I need to hear you are comfortable. Are you going to hold back and say, 'No, you go,' or are you going to be assertive? This is not a time to be scared."

Dawn Klein's 13-year-old son, Thomas, is also volunteering. "I'm working in the supply clinic," he explains. "I check stuff out, like gloves, and record it on the computer." He is working with Christina Khachatourian, clinic supply supervisor, another volunteer spending Sunday with her team on the job.

In central sterilization, the tasks for Sonja Haynes and her crew began Friday afternoon, when they processed instruments in preparation for Clinic With a Heart. When the last patient leaves today, they will stay by to sterilize Monday morning's supply of instruments.

The patients begin emerging from the clinic. Lauren expresses gratitude: "I'm grateful. It's a true blessing that these dentists and dental hygienists are giving their time."

"I was really scared," says Helen, a patient who arrived at 2:30 a.m. and is smiling at 9 a.m. "I have had lots of bad experience with my teeth. I was in very good hands today. I couldn't even feel the injection."

Lorraine from Salt Lake City may be the patient from the greatest distance. She has had an extraction and hygiene treatment.

In pediatric dentistry, Bonnie Nelson, SD'88, department chair, and Lillian Andrade, supervisor of the pediatric dentistry clinic, have organized a team of faculty, residents and staff. Assistants are necessary here to provide the uniform care needed because of the fear factor in children. The complaint of Damion, 13, centered on a new tooth emerging over what turned out to be pieces of his primary tooth still embedded in his gum. "They had to slice the gum to get pieces of tooth out," he says soberly.

Two teenaged patients receive directions to endodontics residents. Drs. Joseph Packer and Ashraf Harhash will save teeth that otherwise would have required extraction. A repair for one on a lower six-year molar rewards the teenager who had been waiting since 2:30 a.m. The other patient, with otherwise healthy teeth, finds relief from suffering with a cavity all the way to the nerve.

A massive organizational team led by Mary Hartwell, clinic manager, prepared the smooth operation of Clinic With a Heart. The procedures dispensed reached a value of \$32,767 (at LLUSD's reduced price rate). A patient turnout of 223, smaller than normal—perhaps because of the cold weather—became a plus for those who needed more than one procedure, which had been a necessary limit during previous clinics when balmy weather brought a turn-away crowd.

Notable assistance in the day's venture came from the event's co-sponsor, Proctor and Gamble, whose representative, Gary Peterson, has become a familiar figure at nearly a dozen



Volunteer "Heart" shirts were everywhere on the clinic floor.



D2 volunteer, Asal Gardiner, administers care.

of LLUSD's Clinic With a Heart. His company provided tee shirts for the 481 volunteers (faculty, students, staff and others), toothbrushes and toothpaste kits for the patients. Proctor and Gamble will also contribute \$1,000 for children coming to the pediatric clinic with extensive needs.

LLUSD's Clinic With a Heart was celebrating its 20th session. Begun in 1989, and functioning annually with the exception of one year, the clinic was the dream of Dr. Leif Bakland. "When I took over as clinic director," he says, "I remembered 20 years before as a dental student we occasionally had a Sunday devoted to what we called 'Welfare Clinic.'"

It was Dr. Bakland who proposed to Ron Secor, then the financial manager in the clinic, "Why don't we suggest to the officers in the Dental Student Association that we put on a clinic for people who can't afford very much?"

The idea came from a national organization, Doctors With a Heart Day, whose members opened their offices one day a year to anybody who needed dental care. Following up on the suggestion, Dr. Bakland found the student officers ready to do what turned out to be "a great job."

Clinic With a Heart's first 20 years

YEAR	VOLUNTEERS	ADULT	PEDIATRIC	ADULTS \$\$	PEDIATRIC \$\$	TOTAL
1990	140	186	N/A	N/A	N/A	10,000.00
1991	N/A	300	N/A	N/A	N/A	16,765.00
1992	N/A	N/A	N/A	N/A	N/A	N/A
1993	N/A	N/A	N/A	N/A	N/A	11,476.00
1994	N/A	N/A	N/A	N/A	N/A	13,623.00
1995	N/A	N/A	N/A	N/A	N/A	8,402.00
1996	N/A	N/A	N/A	N/A	N/A	N/A
1997	78	300	N/A	N/A	N/A	13,245.00
1998	274	194	58	15,589.00	4,357.00	19,946.00
1999	336	251	45	18,367.00	5,774.00	24,141.00
2000	370	201	38	14,884.00	3,375.00	18,259.00
2001	421	108	37	14,870.00	4,553.00	19,423.00
2002	317	155	42	21,175.00	5,918.00	27,093.00
2003	321	129	29	21,775.00	6,047.00	27,802.00
2004	373	183	40	28,397.00	6,945.00	35,342.00
2005	382	115	26	19,206.00	5,017.00	24,233.00
2006	NO	CLINIC	WITH A	HEART	THIS	YEAR
2007	364	218	41	29,169.00	8,972.00	38,141.00
2008	463	232	44	23,396.00	11,983.00	35,379.00
2009	403	283	39	31,137.00	10,640.00	41,777.00
2010	481	205	18	26,757.00	6,010.00	32,767.00
TOTALS	4,723	2,541	374	\$264,702.00	\$79,591.00	\$417,814.00

The data indicate a record number of volunteers participated in 2010, and the value of procedures rendered has been exceeded only four times in the previous 20 years.



Clinic With a Heart faculty volunteers: Fred Kasischke, DMin, associate dean, Admissions and Service Learning; Patrick Naylor, DDS, MPH, MS, associate dean, Advanced Education; Gary Golden, SD'76, assistant professor, Restorative Dentistry; Ronald Forde, SD'83, assistant professor, Restorative Dentistry; Charles Goodacre, SD'71, MSD, dean; Doyle Nick, SD'78, PG'95, associate professor, Restorative Dentistry

2010 LLUSD commencement

One hundred and seventy-seven graduates from 31 countries graced Loma Linda University's campus mall on the afternoon of May 30, 2010, to celebrate the School of Dentistry's 54th annual commencement.

Along with the conferring of degrees to graduating students from Doctor of Dentistry, Dental Hygiene, International Dentist and Advanced Education Programs, three of the School's faculty received honors: Susan Richards for the Teacher of the Year Award; Quint Nicola for the Distinguished Service Award; and Lloyd Baum for the Distinguished Research Award.

It was the director of Medical Education for the Department of Cell and Developmental Biology at Vanderbilt University School of Medicine, Dr. Jeanette Norden, who congratulated and encouraged LLUSD's graduating classes

to "believe in yourselves" and "follow your values in large and small decisions," and "let your heart guide you as you live lives of purpose and service."

Stacy Stroup, president of the Dental Hygiene graduating class, was particularly thankful for a country and school where "we can pray and be openly grateful to God" for so many blessings. And she was "awed by the diversity of her classmates" who she was "proud to call my brothers and sisters."

Addressing his Doctor of Dentistry graduating classmates, class president Weston Spencer noted that "all truths are easy to understand once they are discovered. The problem is to discover them." As he expressed appreciation for what they had "acquired here" at LLUSD, Spencer was especially grateful for, "the opportunity to make higher choices—choices that affect many others."



Jeanette Norden, PhD, director of Medical Education for the Department of Cell and Developmental Biology at Vanderbilt University School of Medicine, delivers the Commencement address for the School of Dentistry.



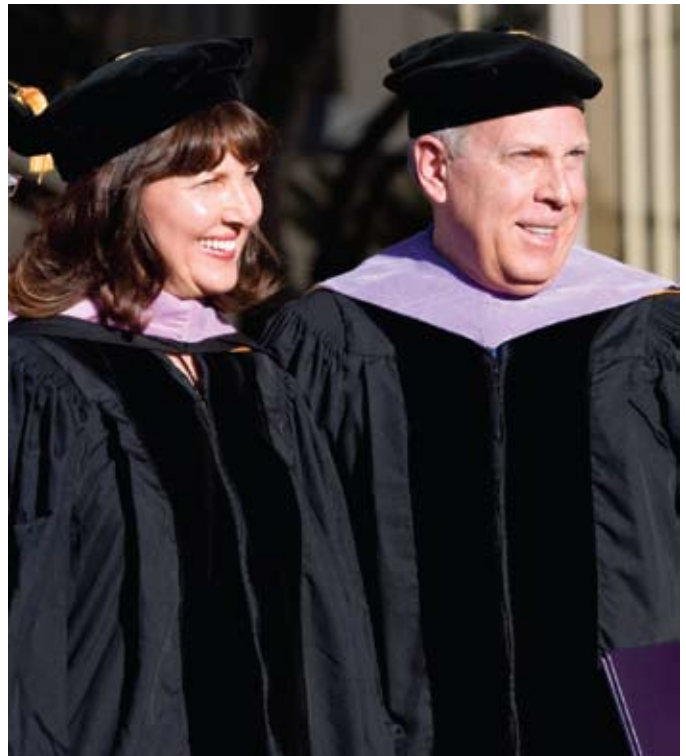
School of Dentistry students await the commencement events.



Graduates Hardik Desai (International Dentist Program), and sisters Erin Stephens (Dentistry), and Lindsay Richards (Dental Hygiene) are prepared to engage the world professionally.



Stacy Stroup, DH'10, class president, addresses classmates, parents and friends.



Shirley Daughters Mercer, SD'84 and Thomas Mercer, SD'83, proudly watch son Justin, SD'10, graduate.



Graduating dental students Paul Luczynski, Nicholas Marongiu, Todd Ludden, Justin Mercer and Jibun Moon anticipate their diplomas.



Brent Hiebert, SD'10, celebrates this milestone with his wife Katie.



Dentistry graduates, Susan Lee and Justin Weaver, march.



Graduates take time for prayers of gratitude.



Jared Nation, SD'02, hugs his dental hygiene graduating sister, Jana Nation.



Class of 2010 Dental Hygiene graduates include Rona Sung, Kayla Knutson, Angelina Llopis, Allina Lopez, Danielle Marshall, and Allie McEowen.



Dean Goodacre presents Quint Nicola, SD'69, assistant professor, Dental Education Services, with the LLUSD Distinguished Service Award.

Gary Hsieh, SD'03, PG'10, Dezireh Sevanesian, DDS, PG'10, and Maryam Seirafi, SD'10, were in a thumbs-up frame of mind.



Sibling medical alumni, Marti and Bradley Baum, accept the School Distinguished Research Award on behalf of their father, Dr. Lloyd Baum, from LLU President Richard Hart.



Ebullient dental hygiene graduates, Heather Beaumont and Kristen Willard, march.

Dentistry class of 2010 Academic Excellence Gold and Silver winners

The LLUSD Academic Excellence Gold Award is given to those fourth-year dental students who scored one standard deviation or more above the mean on both National Board examinations Part I and Part II. The Silver Award is reserved for those who exceeded the national mean by at least one standard deviation on either National Board Part I or Part II.



Ron Dailey (far left), executive associate dean, and Dean Charles Goodacre (far right) stand with Gold Award winners (L-R): Janelle Tonn, Justin Weaver, Bradley Field, Timothy Wieg, Lisa Gotari, Lauren Gutenberg, Chad Allen, Erin Stephens, and Emily Herndon.



Ron Dailey (far left), executive associate dean, and Dean Charles Goodacre (far right) stand with Silver Award winners (L-R): Ryan Waring, Iris Choi, Soh Yeun Kim, Hyun June Kim, Elbert Choi, and James Rho. Winners not pictured: Jonathan Garcia, Michael Gaudiz, Brent Hiebert, Young Lee, Yoo-Youn Yi.



Sterilization Assurance Service

LOMA LINDA UNIVERSITY
School of Dentistry

ORDER FORM

Date _____

Dr. Name (Last) _____ (First) _____
Name of office _____
Customer ID # (for current customers) _____
Address _____
City _____ State _____ Zip _____
Phone () _____ Fax () _____
E-mail _____

Sterilizer Type/Number/Model:

(Supplies for each sterilizer must be kept separate for identification purposes)

Steam Chemical Vapor Dry Heat EO Gas _____

Basic: 1) One test strip and one control strip in each test; 2) Return envelopes; 3) Monthly report; 4) Binder to keep reports; 5) Failure notification via telephone.

Price	Quantity	Amount
\$79 / 12 tests	_____	\$ _____
\$109 / 24 tests	_____	\$ _____
\$159 / 52 tests	_____	\$ _____

Optional: 1) Certificate of Participation \$12 \$ _____

Intensive: 1) Two test strips and one control strip in each test; 2) Prepaid return envelopes;

3) Certificate of Participation; 4) Report on each test; 5) Binder to keep reports;

6) Failure notification via telephone.

Price	Quantity	Amount
\$108 / 12 tests	_____	\$ _____
\$298 / 52 tests	_____	\$ _____

Plus \$8.00 shipping and handling fee per order.

Check enclosed \$ _____ payable to the SAS-LLU
 Charge: Total \$ _____ Visa MC Exp. Date _____
Card number _____ CVV# _____



Dental Unit Water Testing

LOMA LINDA UNIVERSITY
School of Dentistry

ORDER FORM

Date _____

Dr. Name (Last) _____ (First) _____
Name of office _____
Customer ID # (for current customers) _____
Address _____
City _____ State _____ Zip _____
Phone () _____ Fax () _____
E-mail _____

• Full dilutions indicate exact Heterotrophic bacteria counts

• **Water Quality Certificate:** included
(If all test results meet the CDC goal of < 500 CFU/mL)

• Containers and ice pack for DUWL testing are provided.

• Ship DUWL samples via Express Mail to SAS Laboratory.

Price / kits	Amount	Price / kits	Amount
\$68 / 3 tests	\$ _____	\$125 / 6 tests	\$ _____
\$190 / 10 tests	\$ _____	\$360 / 20 tests	\$ _____

Plus \$8.00 shipping and handling fee per order.

Check enclosed \$ _____ payable to the SAS-LLU

Charge: Total \$ _____ Visa MC Exp. Date _____
Card number _____ CVV# _____



Mail to: Sterilizaion Assurance Service

Loma Linda University School of Dentistry
24867 Taylor Street, Loma Linda, CA 92350

Telephone: (909) 558-8176 (909) 558-8794

Fax: (909) 558-0307 E-mail: sas@llu.edu

Web: <http://www.llu.edu/university/Dentistry/Services>

Metamorphosis of LLUSD's Graduate Program in Orthodontics: 1960-2010

R. David Rynearson, DDS, MS

One can never consent to creep when one feels the compulsion to soar. — Helen Keller

One of nature's marvels is the metamorphosis that takes place when a tiny butterfly egg on a leaf becomes a creeping larval caterpillar and then a dynamic chrysalis cocoon from which emerges a beautiful adult butterfly with the capacity to soar. The story of the initial formation of the School of Dentistry's Graduate Program in Orthodontics to its current state has involved a progressive metamorphosis orchestrated by many dedicated didactic and clinical orthodontic educators. The goal of these educators throughout the years has been to provide the best possible orthodontic education so that its graduates can soar in their ability to provide quality orthodontic care.

Early History 1955-1969

The School of Dentistry's founding dean, Dr. M. Webster Prince, recruited excellent dentists to pursue dental specialties at prominent dental schools and then return as faculty in the various departments of the soon-to-be School of Dentistry of the College of Medical Evangelists (CME). Drs. Franklin Nelson and Elizabeth Larsen were slated to head up the proposed Orthodontic Department, which was to be ready by 1955 to correspond with the junior year of the first dental class. Dr. Nelson attended the graduate program in orthodontics at the University of Southern California and subsequently became the first chairman of CME's Department of Orthodontics. Simultaneously, Dr. Larsen attended the graduate program in orthodontics at Northwestern University and then became a full-time faculty member of the newly formed CME Department of Orthodontics.

CME's School of Dentistry 'opened its doors' to dental students in 1953, although the original structure of the current Prince Hall was not completed until 1955. Thus the School's first dental class experienced didactic classes and some clinical exposure through 'doors' in preexisting buildings on campus during their initial two years of training. Before the completion of Prince Hall, the School of Dentistry's dental clinic was in Cutler Hall basement, which at that time was principally used for didactic and laboratory teaching in microbiology. Dr. Elizabeth Larsen, the principal didactic and clinical orthodontic educator for pre-doctoral dental

R. David Rynearson, SD'71, MS'87, associate professor, has been a half-time didactic and clinical orthodontic educator for LLUSD's pre-doctoral and graduate students since 1987. He maintains a private orthodontic practice in Moreno Valley, CA.



students, oversaw the orthodontic clinical training in Cutler Hall for the School's first dental class.

In 1957 Dr. Elizabeth Larsen opened an orthodontic practice in St. Helena, California, as her husband, a biochemist, had been granted a teaching position at nearby Pacific Union College. Dr. Larsen's brother, Thomas J. Zwemer, at the time an associate professor at Marquette University with eight years of faculty experience, accepted the School's invitation to become co-chair of the Department of Orthodontics, joining Dr. Nelson, who was serving in a part-time position. Dr. Zwemer was also given the task of developing a graduate program in orthodontics, which would become the first dental specialty program offered by the School of Dentistry. The initial Graduate Program in Orthodontics developed under his direction



Thomas J. Zwemer, DDS, chair, Department of Orthodontics and Dentofacial Orthopedics (1961-1966), and director of its graduate program (1960-1966)

The author would like to acknowledge the following individuals for sharing their insights into the history of LLUSD's Graduate Program in Orthodontics: Dr. Milford Anholm, Dr. Willis Schlenker, Dr. Richard Simms, and Dr. Thomas Zwemer.

included a thesis-based master's degree to be granted by the School of Graduate Studies of CME, later called Loma Linda University. Dr. Zwemer designed a program to have both clinical excellence and didactic academic credibility. While at Marquette, Dr. Zwemer had been working on electromyography as a line of research. His background in innovative orthodontic research and academics at a prominent school made him the ideal person to develop CME's Graduate Program in Orthodontics. The School of Dentistry and the School of Graduate Studies approved Dr. Zwemer's well-planned curriculum, and he became not only its architect but also the first director of the Graduate Program in Orthodontics.

Graduate Program Begins 1960

The first class of the Graduate Program in Orthodontics began in 1960 at a time when the U.S. newspaper headlines ranged from hula-hoops and *I Love Lucy* to the U-2 spy plane and John F. Kennedy's ascent to the presidency. The first orthodontic residents, Milford J. Anholm and Howard W. Conley, had been long-time friends. Graduating in 1962, just 21 months after they had begun their residency at CME, their master's degrees were granted by Loma Linda University, as the CME name was changed to LLU in 1961.

Unexpectedly, during their first year of training, Dr. Nelson died and Dr. Zwemer's title subsequently changed from co-chair of the Department of Orthodontics to chairman while he continued as director of the Graduate Program in Orthodontics.

The following is a thumbnail sketch listing some of the activities of the orthodontic residents during the early years of LLUSD's Graduate Program in Orthodontics:

1. Dr. Nelson was trained in the Universal technique at USC (just as an aside, a supplier by the name of Unitek got its name from the Universal technique).
2. Dr. Zwemer, the founder of the orthodontic graduate program, was trained at Northwestern, which taught Edward H. Angle's edgewise technique.
3. The edgewise technique was the predominant technique taught at LLU.
4. Full bands were pinched, spot-welded, and subsequently brackets were soldered to the bands. The band material was stainless steel and gold. There were no preformed bands at the beginning of the graduate program. First-, second- and third-order bends were placed in the arch wires manually.
5. Dr. Zwemer arranged for many of the prominent orthodontists from the surrounding communities to share their clinical skills with the residents. One of those sharing clinicians was Dr. Robert M. Ricketts.
6. The residents had courses in tooth-movement, biomechanics, statistics, anatomy, speech pathology, and growth and development among other courses.

7. Dr. Zwemer mentored research in the comparative anthropological studies of the face, jaws and teeth of South West Native Americans, in the piezoelectric properties of alveolar bone with in vivo orthodontic tooth movement, and in the use of the Baldwin strain gauge in plotting the efficacy of force application in a variety of extra-oral orthodontic appliances.
8. The department then mandated original research, as it does currently.
9. One course that seemed unforgettable to the early orthodontic classes required the residents to carve in wax an anatomical likeness to each of the craniofacial bones. While lecturing at Loma Linda University, the famous anatomist, Dr. Harry Sicher, would illustrate anatomical structures on the blackboard ambidextrously with both hands to the delight of the students. Probably the students were even more delighted after he was asked to evaluate the aforementioned wax-carved craniofacial bone project. It is reported that he said in his very German accent, "Vy for you do dat? It still looks gust like wax!" Thereafter, the wax project was terminated.

During the early development of the Department of Orthodontics, Drs. Nelson and Larsen outlined the pre-doctoral program and Dr. Zwemer created the Graduate Program in Orthodontics. Drs. Alden Chase and Howard Conley gave added strength and cohesiveness to the graduate program, bolstering the foundational work of Dr. Zwemer. Since its first site visit, the Orthodontic Department (and subsequently its advanced education program) has enjoyed continuous full accreditation by the ADA.

Chronology of Departmental Administration

Franklin Nelson, chair 1955-1958

Franklin Nelson & Thomas Zwemer, joint chairs 1958-1961

Thomas Zwemer, program director 1960-1966

Thomas Zwemer, chair 1961-1966

Alden Chase, chairman/program director 1966-1967

Howard Conley, chairman/program director 1967-1969

Roland Walters, chairman/program director 1969-1989

Joseph Caruso & Norman Carter, joint chairs 1989-1992

Joseph Caruso, chair 1992-1993

Toufic Jeiroudi, program director 1992-1997

Alden Chase, chair 1994-1996

Joseph Caruso, chair 1996-present

Joseph Caruso, program director 1997-2006

Leroy Leggett, program director 2006-present

Intervening History 1969-1989

The intervening years in the history of the Department of Orthodontics are punctuated by the presence and departmental activities of Roland D. Walters.

A member of CME's first dental class of 1957, Dr. Walters had also completed LLU's Graduate Program in Orthodontics in 1967. During Dr. Walters' era a number



Jim Wise, SD'67, MS'71, associate professor, Orthodontics and Dentofacial Orthopedics, has served on the faculty since 1967.

of significant departmental policies changed in both didactic and clinical orthodontics.

The standard edgewise technique had been the predominate technique taught since the beginning of the department; however other variant treatment philosophies such as the Begg technique were also being taught. Dr. Walters had been interested in the bioprogressive treatment philosophy and biomechanics of Dr. Robert M. Ricketts and in fact sponsored his faculty to attend Dr. Ricketts' short course at his Pacific Palisades office. At Dr. Walters' suggestion, the Graduate Program in Orthodontics adopted the bioprogressive variant of the edgewise technique as the predominant treatment philosophy to be taught, which by the way is still taught today. In a nutshell, the bioprogressive treatment philosophy entails a tailor-made treatment plan based upon the patient's skeletal, dental and functional parameters to progressively and logically unlock the patient's malocclusion. The bioprogressive treatment philosophy encourages the clinician to use light biologic compatible forces and to segmentalize a dental arch when needed, in an effort to allow specific segmental orthodontics to improve efficiency.

In 1972 the American Dental Association encouraged

graduate programs to standardize the length of their graduate dental specialty training to 24 months. LLU complied and lengthened its orthodontic program to 24 months; however, with the class of 1998 it was lengthened again to 27 months.

In another innovation Dr. Walters introduced the use of computers in the didactic and clinical teaching of graduate orthodontics. A graduate student, Gunther Blaseio, SD'86, inspired this action. For his master's degree thesis, Dr. Blaseio developed a computer program, now called Quick Ceph, to aid the orthodontist in tracing a lateral cephalograph digitally rather than by hand. Under the leadership of Dr. Walters other innovations have led not only to the continuing metamorphosis of the Graduate Program in Orthodontics but to a noteworthy pre-doctoral orthodontic program. Wanting his orthodontic graduates to be consummate professionals, Dr. Walters developed a graduate program that was strong didactically and clinically as well as promoting relevant and quality research activities by the residents.

Recent and Continuing History 1989-Present

For approximately seven years after the retirement of Dr. Walters, the Department of Orthodontics was the beneficiary of a series of short-term chairpersons. Also, under the able leadership of Dr. Toufic Jeiroudi as the Graduate Program director and with a very focused and cohesive orthodontic didactic and clinical faculty, the orthodontic program continued to flourish during those years.

In 1996 Dr. Joseph Caruso became the current chairperson of the Department of Orthodontics. Some of the key innovations to the Department of Orthodontics as a direct result of his influence are listed here:

1. A strong interest in computer technology as applied to didactic and clinical based orthodontic teaching.
2. ZeroBase diagnostic orthodontic software for aiding the resident in performing a thorough and methodical gathering of initial patient data. The program included an analysis portion that promoted digitizing a scanned lateral cephalometric radiograph to create a T1 tracing, an arcial growth forecast and a visual treatment objective (VTO). Among other diagnostic functions the program would allow superimpositions of various tracings from different time points to evaluate growth modification and orthodontic and orthopedic changes over time. Today the department uses Dolphin Imaging and Ortho II as diagnostic and recording digital tools.
3. In March of 2001 the NewTom 9000 Digital Volumetric Scanner from Italy was installed at LLUSD's Department of Orthodontics. This was the very first Cone Beam Computed Tomography (3D CBCT) machine sold and used in orthodontics in the United States. This very innovative instrument affords the residents unparalleled anatomical information about their patients' craniofacial anatomy. Traditional orthodontic skull films are 2D

and show anatomical structures superimposed on other structures, whereas the 3D CBCT reveals the craniofacial anatomy as it actually is in relationship to adjacent structures. The residents today are thoroughly trained in the use of the NewTom 3D CBCT machine. This aids them greatly in evaluating skeletal and dental relationships along with evaluating the airway, TMJ and other anatomical associations.

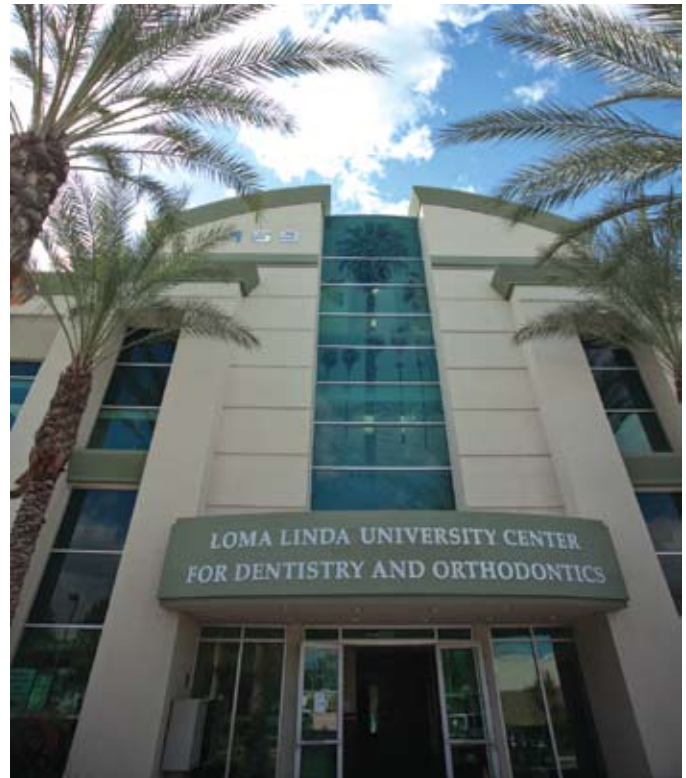
4. In June of 2009 the Department of Orthodontics moved into a new facility (Loma Linda University Center for Dentistry and Orthodontics) about three miles from the School of Dentistry. This facility's second floor houses the Graduate Orthodontic Clinic (the Milford J. Anholm Clinic) and its many supporting areas, including a state of the art conference room (the Thomas J. Zwemer Conference Room) along with various personnel including the faculty, students, and staff and their respective offices. The Graduate Orthodontic Clinic is very innovative with provision for the residents to have their laptop computers at their chairs so that they can bring up some of the following fully digitized records: Photos, radiographs including NewTom images and their patient's chart. The clinic is moving toward a 'paperless' system of patient record keeping. The Faculty Dental Offices from the School of Dentistry will be occupying the first floor of the building sometime during the summer of 2010.
5. The classrooms are on the "penthouse suite" third floor. This floor also houses a library and a high tech research laboratory. The classrooms (the Alden B. Chase classrooms) are state of the art with high definition large screen monitors and a high quality ceiling mounted digital projector. The technology in this room allows for 'distance learning' through 'video conferencing.' The capability exists for lectures from as close as the School of Dentistry to somewhere in another part of the world.
6. A mobile 'Teledentistry' unit in the new building allows for an audiovisual consultation evaluation of patients in the new building by doctors in Prince Hall, some three miles distant.
7. The Department faculty continually evaluate and update the didactic and clinical curriculum in an effort to provide the best possible orthodontic education.
8. The Department encourages and facilitates the pursuit of certification by the American Board of Orthodontics.
9. There are other high tech advances on the horizon—stay tuned!

The Department of Orthodontics has been blessed by a very long line of excellent residents who are eager to learn and to share their talents with their classmates and under classmates, creating a growing and nurturing climate.

Also, the Department has been blessed with a very caring

and supporting clinical and academic faculty and staff who have the resident's best interests at heart.

Just as the life cycle of an adult butterfly entails laying its tiny eggs on a leaf with the progression from a creeping larval caterpillar to a dynamic chrysalis cocoon to the emerging beautiful butterfly—just so, the Department of Orthodontics at Loma Linda University has gone through a series of transformations. In the analogy, the emerging butterfly not only represents the transforming department, but it also represents its transformed product, the graduate. The department is the dynamic chrysalis that is designed to produce the best possible graduate, one that can soar in his or her ability to provide the best possible orthodontic care. Just as exciting as it is to see a beautiful butterfly emerge from the rigors of its cocoon and unfold its wings to fly, it is also very exciting to watch our residents develop over time into competent orthodontists enabled to soar into the wonderful world of orthodontics.



Through the generosity of alumni, faculty, staff and friends of the School of Dentistry more than half the amount needed has been raised to officially name specific facilities in the Loma Linda University Center for Dentistry and Orthodontics. But financial support is needed to finish funding the J. Milford Anholm Graduate Orthodontic Clinic. You may have a part in educating future orthodontic professionals while honoring a great educator by making a special gift for this project. You may send your gift to the Office of Development, Loma Linda University School of Dentistry, 11092 Anderson Street, Loma Linda, California 92350. We also welcome your calls to (909) 558-4754 for more information or to make a pledge or credit card gift.

J. Milford Anholm Graduate Orthodontic Clinic

The LLUSD Alumni Association has chosen to honor Dr. Anholm with the Distinguished Alumnus award because of service to his profession and alma mater. The Department of Orthodontics has chosen to honor Dr. Anholm because of his contribution to the Department as a friend, colleague and teacher. Dr. Anholm has taught hundreds of orthodontic graduate students, and probably supervised an equal amount of undergraduate students on mission trips and in the pre-doctoral clinic.

Those who have been mentored by Dr. Anholm recognize and appreciate not only the academic and clinical guidance he has shared, but also acknowledge his life and his core values that he displays daily through compassion, dedication, curiosity and ethics.

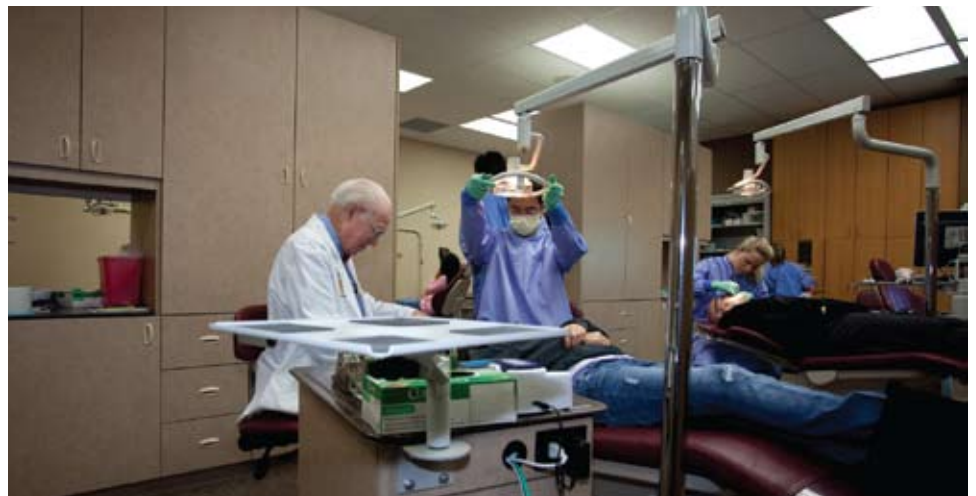
It is because of his influence and service that the orthodontic alumni and the Orthodontic Department named the new orthodontic clinic on Hospitality Lane the J. Milford Anholm Graduate Orthodontic Clinic.

This beautiful, efficient clinic, which so reflects Dr. Anholm's professional and personable nature, features a tele-dentistry system that displays a live image of a patient in the J. Milford Anholm Graduate Orthodontic Clinic for consult with an instructor in Prince Hall. Students and faculty provide treatment in bright, airy spaces with access to state-of-the-art computer and communications capabilities, including closed circuit TV for security purposes, gigabit-wired networking for the manipulation and transfer of patient oral images (including volumetric radiographs), and wireless networks for easy access to the internet.

Left: Dr. J. Milford Anholm in the early years.

Middle: Dr. Anholm treats a patient in the clinic that bears his name.

Bottom: Dr. Anholm pauses during an instructional procedure.



Clinician and mentor, Dr. Anholm stops for a picture with (L-R)with: Marc Dunn, SD'98, MS'00, Margaret Kowalezyk, MS'00, Sonja Finnie, SD'98, MS'00, Mark Batesole, MS'00, Camille Neagu, SD'97, MS'00, David Nguyen, MS'00.

Alden B. Chase Video Conference and Learning Center

The faculty of the Department of Orthodontics and the administrators of the School of Dentistry named the third floor classroom of the new orthodontic program for an alumnus of the program who dedicated his life to the profession and his alma mater. Alden B. Chase, SD'60, MS'63, held a continuous faculty appointment at the School of Dentistry from the time he graduated in 1960 until his death in 2003. He twice served as interim chair of the Department of Orthodontics, was on the Executive Committee of the LLU Board of Trustees for ten years, and demonstrated servant leadership by serving as president of many different organizations.

After Dr. Chase's death, the establishment of a learning center (originally slated for Prince Hall) was planned in his memory. When it was determined that the department would be moving to a new fa-

cility, the project was put on hold and re-ignited in the planning for the new facility.

The Alden B. Chase Video Conferencing and Learning



Alden B. Chase Video Conference and Learning Center in the Loma Linda University Center for Dentistry and Orthodontics

Center signifies the transition from the brick and mortar traditional education environment to that of the virtual classroom. The Alden B. Chase Video Conferencing and Learning Center serves as the hub, as the location of the class becomes less static and the ability to be "in class" essentially anywhere becomes more dynamic. The main room can be divided into three smaller conference rooms, all of which include equipment to facilitate distance education. The Department of Orthodontics

currently hosts distance learning from as near as Prince Hall to San Diego, Spokane, UCLA and Pordenone, Italy, and continues to extend to other educators.

Thomas J. Zwemer Conference Room

The first class of graduate orthodontic students was composed of Dr. Milford Anholm and Dr. Howard Conley. The chair of the Orthodontic Department at that time was Dr. Franklin J. Nelson. However, in 1961 Dr. Nelson died unexpectedly, and Dr. Thomas J. Zwemer took over the mantle of both chair and program director, serving in that role until 1966.

Dr. Zwemer designed the curriculum of the graduate orthodontic program, many elements of which remain in effect. His insight into the balance of didactic and clinical education continues to influence the program structure today. Though changes have been made as the profession evolves, his basic design is still very much the core.

In recognition of Dr. Zwemer's contributions in helping to establish the base that future students and alumni have built upon, the second-floor conference room in the new orthodontic offices bears his name. The Thomas J.



Thomas J. Zwemer Conference Room in the Loma Linda University Center for Dentistry and Orthodontics

Zwemer Conference Room serves as the Orthodontic Department's primary faculty conference room, and on occasion it also is used as a classroom. It is equipped with state-of-the-art video conferencing equipment, which allows lectures and conference with people anywhere in the world.

2010 alumnus of the year, Dr. Leslie Nazaroff

Leslie Nazaroff, DrPH, DH '90, was selected as this year's Dental Hygiene Alumnus of the Year. Leslie has played an important part in both dental hygiene and dental student education for nearly 20 years.

Dr. Nazaroff completed her dental hygiene training in 1990, finished her master's in public health in 1994, and received her doctorate in public health in 1998. For most of those years, she was also teaching full time in the department of periodontics at Loma Linda University School of Dentistry.



Dr. Leslie Nazaroff

A dedicated and enthusiastic teacher, Leslie taught second year dental students the importance of oral health, including the techniques of scaling and root planing. Dental hygienists can thank her that hundreds

of dentists value their hygienists and the importance of oral health, due her dedicated teaching.

In 2000, Dr. Nazaroff left the School of Dentistry to take a teaching position with San Joaquin Valley College, much closer to her home in Rancho Cucamonga. There she taught courses in basic sciences, local anesthesia and periodontics, and designed their highly effective National Board Review Course. A naturally gifted critical thinker, based in scientific theory and research, Dr. Nazaroff was destined to be an excellent teacher. Her love for the topics she teaches makes her even more effective and inspiring as she threads the bond between science and the clinical aspects of hygiene and dentistry. She added her administrative skills when she became the director for the San Joaquin Valley College dental hygiene program in 2007.

The words on the plaque she received fully describe the esteem of her colleagues and peers: "and we salute her for her devotion to educational pursuits."

Class of 2010 Honors Program completion

The LLUSD Honors Programs provide dental students the opportunity to develop and demonstrate excellence above and beyond the required dental curriculum. No clinic points are awarded for participation in Honors Programs, nor does participation replace any competency examinations.

Requirements for Honors Programs typically include the maintenance of an upper third class standing clinically and academically, clinical competency examinations that are on schedule, and the consistent demonstration of exemplary personal and professional integrity. These students completed honors programs during 2009-2010:

Name	Program
Jerherth Ask	Orthodontics
Iris Choi	Orthodontics
Hardik Desai	Implant Dentistry
Hasan Daoud	Pediatric Dentistry
Lisa Gortari	Dental Anesthesiology
Lauren Gutenberg	Pediatric Dentistry
Brent Hiebert	Pediatric Dentistry
Bryan Horgan	Dental Anesthesiology
Nicholas Marongiu	Implant Dentistry
Miguel Pappaterra Leon	Prosthodontics
James Rho	Dental Education
Stuart Seheult	Dental Anesthesiology
Sarah-Jane Shearer	Pediatric Dentistry
Weston Spencer	Endodontics
Janelle Tonn	Pediatric Dentistry
Nicholas Wilson	Dental Education

School of Dentistry honors its own



*Quint P. Nicola, SD'69, assistant professor,
Department of Dental Educational Service*

After completing the dentistry program at Loma Linda University School of Dentistry (LLUSD), Dr. Quint P. Nicola immediately opened a private practice in Redlands, California. In 1971, he accepted the position of director of the Seventh-day Adventist Dental Services in Karachi, Pakistan, where he served until his return to the United States in 1975 to become a faculty member at LLUSD. Assigned to the Monument Valley Dental Clinic, he taught dental students and treated patients.

In 1980, Dr. Nicola was called once again to Rawalpindi, Pakistan, where he and his wife served until 1987. When they returned to the United States, he opened a private practice in San Bernardino, California.

Dr. Nicola was once more recruited to faculty service at LLUSD in the Department of Oral Diagnosis, Radiology, and Pathology in 1995. He remained there until 2002, when he accepted the positions of director of international affairs for LLUSD and associate director for dental affairs, Health Ministries Department at the Seventh-day Adventist Church world headquarters. In spite of his busy schedule, and in addition to his professional accomplishments, Dr. Nicola is known as a committed Christian who seeks to model in his personal life the University's mission to further the healing and teaching ministry of Jesus—"To make man whole."

Dr. Nicola has served on numerous professional and church-related committees; holds several society memberships, including the National Association of Seventh-day Adventist Dentists; serves as vice president of

World Medics, Inc.; and continues to serve as the board chair of the Crestline Seventh-day Adventist Church.

The School of Dentistry recognizes the contributions of Dr. Quint Nicola—characterized always by excellence—in teaching and administration; appreciates his wise voice of reason on committees and advisory bodies; and is grateful for his twenty-six years of dedicated service. In recognition of the high regard in which he is held by students, faculty colleagues, and many alumni who have benefited from his wise counsel and clinical skills, Dr. Nicola received the SCHOOL DISTINGUISHED SERVICE AWARD at the Conferring of Degrees for the School of Dentistry.



*Lloyd Baum, DDS, professor emeritus, Department
of Restorative Dentistry, International Dentist
Program*

Prior to his appointment to the newly opened Loma Linda University School of Dentistry (LLUSD) in 1951 as one of the earliest clinical faculty recruited to the school, Dr. Lloyd Baum taught for one year at the University of Southern California School of Dentistry. For the twenty-year period ending in June 1972, Dr. Baum was a key figure in clinical teaching at LLUSD. During that time, he developed a reputation as a superb role model of clinical resourcefulness

and finesse in restorative dentistry and fixed prosthodontics. He served at various times as department chair, director of clinics, and assistant dean—in addition to his full load of teaching responsibilities.

Dr. Baum was also one of the most active figures in dental research in the early years. His pattern of contributions to the dental literature in the early part of this teaching career has now culminated in his authorship of six textbooks and more than 100 articles in refereed scientific journals. He has been an invited lecturer in more than 300 professional settings in the United States and other countries, where he has presented instructive clinical demonstrations, lectures, and continuing education courses.

Dr. Baum was appointed professor of restorative dentistry at The State University of New York at Stony Brook in 1972. For six years he played a key role in organizing the restorative dentistry and fixed prosthodontics curriculum in the newly formed dental school on that campus. Subsequently, he accepted an appointment as professor of restorative dentistry at the the University of Connecticut School of Dental Medicine. In 1982, he initiated the International Dentist Program at LLUSD, serving as its first department chair, and has exercised leadership in the school's international outreach programs.

In one of these outreach settings at the University of Montemorelos in Mexico, Dr. Baum organized and supervised the development of a dental program. On November 19, 2004, the University of Montemorelos held opening ceremonies for the Dr. Lloyd Baum School of Dentistry, with the first class beginning in August 2004. In addition, Dr. Baum served as the principal consultant from Loma Linda University in organizing and bringing to full operation the dental service at the Sir Run Run Shaw Hospital in Hangzhou, China.

Dr. Baum has been honored on numerous occasions, including The Pierre Fauchard Academy award luncheon and a testimonial dinner by NASDAD. He was the recipient of the LLUSD Distinguished Service Award and of the Hollenbeck Memorial Prize for "development of operative materials, instruments, and techniques, including Goldent—a direct-filling gold—hand instruments, pin-retained castings and a parallelometer."

In recognition of his creativity, distinguished scholarship, and many notable achievements—which have advanced the mission of Loma Linda University, "To make man whole"—the School of Dentistry honored Dr. Lloyd Baum for nearly six decades of illustrious service that has resonated throughout his profession. The SCHOOL DISTINGUISHED RESEARCH AWARD for Dr. Baum was announced at the Conferring of Degrees for the School of Dentistry.



Susan Richards, SD'84, associate professor, Department of Oral Diagnosis, Radiology, and Pathology

To paraphrase Oliver Wendell Holmes, the greatest teacher makes others believe in greatness. . . and leaves a lasting mark on their lives.

The Teacher of the Year Award was established to recognize and honor School of Dentistry faculty whose accomplishments have had an extraordinary impact on students, faculty peers, and the School family.

For those who regularly work with Dr. Susan Richards as a colleague or have her as a mentor, it is easy to see how this characterization of the exemplary teacher fits her.

The selection process for this honor involves the input of School of Dentistry students, staff, and faculty who represent her with a variety of accolades:

She has a facility for taking pathology, a topic usually considered intimidating and difficult by students—and presenting the material in an interesting, well-organized, and effective style.

As evidence of the students' support of Dr. Richards' approach to teaching, just read the consistently excellent evaluations submitted by students over the past several years:

"Dr. Richards is the best professor I have ever had. Very organized, very fair, a great lecturer, and she uses interesting pictures. I love the notebook she gives us. She is wonderful."

"Dr. Richards is a very thorough and detailed all-around teacher, something I haven't seen in such capacity before."

"Love your organization, love the notes! Expectations are very clear and that make this an EXCELLENT course. Thank you!"

"Best teacher in the school!"

The SCHOOL TEACHER OF THE YEAR AWARD was presented to Dr. Richards at the Conferring of Degrees for the School of Dentistry.

2010 Alumni Student Convention report

The 50th annual Alumni Student Convention brought together a wonderful mix of alumni, including 20 of the 31 living Class of 1960 members, 32 dental anesthesia alumni, 101 orthodontic graduate program alumni, and several hundred other alumni. Hosted in the new Centennial Complex, convention attendees enjoyed state-of-the-art amphitheaters, handsomely appointed gathering areas, and plentiful breakout rooms.



Robert Darby, SD'61; Willis Schlenker, SD'57, MS'80; and James Crawford, SD'60 catch up with each other.



Several alumni chat with anatomy professor Dr. Ben Nava, PhD, in the white coat.



John Houghton, SD'74 and Don Gregg, SD'74 await the guided tour of the new Centennial Complex.



Exhibitors interact with attendees.



Centennial Complex foyers provide a gathering place for alumni.



Large amphitheatres met with LLUSD alumni approval.



Joseph Caruso, SD'73, MS'75, orthodontics chair, presents Dean Goodacre with one of several donation checks totaling nearly \$375,000.



Alumni enjoy the Homecoming Banquet at the Wong Kerlee International Conference Center.



The 2010 Loma Linda University School of Dentistry Alumni Association Board of Directors
Front row (L-R): Ken Pierson, SD'71, PG'95; Gary Chan, SD'89, PG'91, PG'95, MS'95; Robert Kiger, SD'70; Kevin Kuniyoshi, SD'97; Perry Burtch, SD'89; Karen McVoy Harris, DA'75; Mike Boyko, 'SD75A; Jessica Sabo, SD'03; Lillian Johnston, DH'77, SD'82; Rachel Terwillegar, LLUSD development officer; Steve Morrow, SD'60, Graham Stacey, PhD, LLUSD associate dean for Student Affairs.
Back row (L-R): Lewis Cox, SD'83, Charles Goodacre, 'SD'71, MSD, LLUSD dean; Mike Meharry, SD'80; Chad Ordelleide, SD'04; Greg Mitchell, SD'84; Ron Sorrels, SD'73; Thomas Thompson, SD'60, MS'64; Jan Davidian, SD'63, MS'67



Distinguished Alumnus of the Year, J. Milford Anholm, DDS, MS'62, stands with his sons John and James, and Lyn Lamberton, DDS, MS'74.



Dental Hygiene alumni (class of 1990) Carol Ann Tataryn, Leslie Nazaroff, Jacqueline Randazzo, and Karen Mertz, help Dr. Nazaroff celebrate her Dental Hygiene Alumnus of the Year award.



Mike Boyko, SD'75A, presents the Christ-like Service Award to D4 student Sarah-Jane Harebottle Shearer during the student dedication service.



Classmates (SD'80) Cyrus Oster, Leif Bakland, II, and Jack Rocheld, during the School of Dentistry tour



Ready, set, go! Alumni prepare for the Andy Blount Memorial Golf Tournament, scramble style.



Dean Charles Goodacre, his wife Ruthy, and son, D1 student Brian, welcome students, alumni and their families for the School of Dentistry tour.



Brand new alumni (2010) enjoy the Dental Hygiene alumni luncheon at the Mission Inn. From left clockwise: Larysa Volynets, Lucrecia Santana, Stacy Stroup, Jason Nelson, Katieanne George, Karissa Clark, and Lisa Ferguson.



Junior dental hygiene student Caroline Schneider receives her School of Dentistry-embossed Bible from Dean Goodacre.



Alumni Association president-elect, Greg Mitchell, SD'80, helps D4 student Robert Kim don his white coat.



D4 class president Weston Spencer receives his LLUSD-embroidered white coat during the student dedication service.

Be the angel for cleft lip and cleft palate children: What you can do to help

Jung-Wei Chen DDS, MS, PhD

Cleft lip and cleft palate are among the most common birth defects in the United States. Presurgical orthopedic treatment of the cleft lip and palate has become the treatment of choice for many craniofacial teams. The purpose of this article is to address the importance of the dentist's role on the craniofacial team, the benefits of using a presurgical nasal alveolar molding appliance (PNAM) prior to surgical lip repair, and to describe the procedure for treating patients with the PNAM appliance. The PNAM appliance not only molds the affected intraoral and extraoral structures, but also provides nasal support while molding the collapsed nostrils. The PNAM appliance is the treatment of choice for unilateral and bilateral cleft lip and palate patients. For several reasons the use of this appliance enhances the chances of a favorable outcome and, thereby, improves the patient's quality of life.

Introduction

Cleft lip/palate cases occur in one of every 700 to 1,000 newborns in the United States.^{1,2} The causes of cleft lip and palate can be multifactorial: genetics, drugs, vitamin deficiency or excess, cigarette smoking. Environmental and other unknown factors may contribute. Superstitions in some cultures attribute the cause of cleft lip and palate to a jinx. For example, in the Chinese culture some believe doing hard physical labor during the mother's pregnancy could cause cleft lip and palate. This malady has sometimes been connected, in the Mexican culture, to the use of scissors during pregnancy. Regardless of the cause, infants born with cleft lip and palate face multiple, life-long health problems that need to be resolved. This protracted treatment journey can be very difficult for patients, parents and health professionals.

In the United States, infants born with cleft lip and palate will be referred to a craniofacial team that consists of a pediatrician, plastic surgeon, feeding consultant, speech pathologist, ENT specialist, pediatric dentist, orthodontist, oral surgeon, prosthodontist, social worker, etc. Dentists play an important role in the treatment, providing presurgical soft/hard tissue molding, regular dental checkups due to high caries risk, orthodontic treatment, orthognathic surgery, and speech prostheses.

The author would like to express her appreciation to Dr. Carmen Chavarria, Dr. Edward Elmendorf, Dr. Mark Martin, Dr. Andrea Ray, the Loma Linda craniofacial team, and LLUSD Pediatric Dentistry residents.

Jung-Wei Chen, DDS, MS, PhD, program director and associate professor, Pediatric Dentistry, Loma Linda University School of Dentistry



Dentist's role in treating cleft lip and cleft palate patient

From birth into early teen years, regular dental checkups and an aggressive oral hygiene prevention plan are important for the cleft lip and palate patient. The initial appointment should be scheduled around the time of the first tooth eruption. Cleft lip/palate patients have a higher incidence of congenitally missing and supernumerary teeth, enamel hypoplasia, hypocalcification and ectopic eruption at the affected site. A cleft lip and palate patient may require follow-up dental visits at less than six-month intervals to receive sufficiently detailed instruction in oral hygiene (especially for ectopic erupted teeth), and fluoride application. In the early mixed dentition stage, orthodontic evaluation should be obtained in order to achieve optimal timing for initiating orthodontic treatment. The oral surgeon and orthodontist will determine the best timing for an alveolar bone graft and possible orthognathic surgery. Later, if the patient has speech problems or inadequate velum closure, a speech bulb or palatal lift appliance may be needed. If spaces due to congenitally missing incisors can't be closed by orthodontic treatment, an implant or traditional fixed prosthesis may provide the best function and esthetic result.

Presurgical orthopedic or soft/hard tissue molding of the cleft lip and palate has become the treatment of choice for many craniofacial teams. This treatment modality is used to reduce the soft tissue cleft and facilitate lip repair. It precludes the need for lip adhesion with the attendant operative risks, expense, and potential tissue damage.



Fig. 1. Front view



Fig. 2. Nasal view



Fig. 3. A bilateral cleft lip and palate case is characterized by a misaligned, rotated or protrusive premaxilla, with total or partial separation of the premaxilla from the lateral segments, widely separated lip segments, a widened nostril base, a flattened nasal tip, and a short or absent columella.



Fig. 4. PNAM molding plate

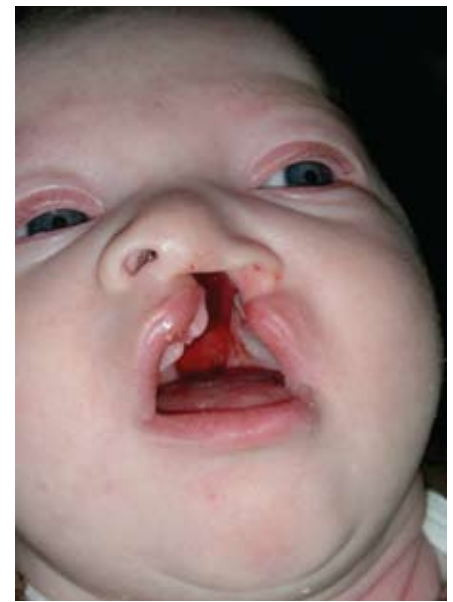


Fig. 5. Case 1. Before treatment



Fig. 6. Case 1. One week with PNAM and tape

History of presurgical orthopedic soft/hard tissue molding

Presurgical orthopedics for the treatment of cleft lip and palate has been in use since the early 1500s, when Franco described the use of an extraoral head cap prior to surgical intervention. In the late 1700s, numerous researchers and surgeons began to experiment with bandages over the prolabium to stimulate muscle retraction with force, compressing the premaxillary region. In 1844 Hullihen used adhesive straps to prepare and close alveolar clefts prior to surgery.⁷ In 1950, McNeil developed an oral prosthesis, similar to an obturator, to approximate the cleft alveolar segments. He modified his appliance so that he was able to reduce the cleft by reorienting the direction of facial growth.⁸ Many orthopedic presurgical techniques have evolved.^{7, 8} Huebener and Liu³ classified the appliances as intraoral, extraoral, surgical, postsurgical, active or passive.

In the early 1980s Latham developed the pin-retained orthopedic appliance to exert a forward force on the posterior segment of unilaterally cleft maxillae. For bilateral clefts he designed a slightly modified appliance to control the posterior width of the maxilla, while retracting the premaxilla with a light constant force by means of a staple and power chain.⁹

Twenty years ago, Grayson and Cutting introduced the presurgical nasal alveolar molding (PNAM) appliance. This

allows surgeons to repair the lip, nose, and gingiva with one surgical procedure. This appliance not only molds the affected intraoral and extraoral structures, but also provides nasal support to mold collapsed nostrils. It improves the position and symmetry of nasal deformities (Figures 1, 2, 3), and has shown significant reduction in the size of the cleft intraorally. The PNAM appliance was developed as an improvement over the Latham appliance.^{7, 10} This newer appliance takes advantage of the plasticity—and lack of elasticity—of the neonatal cartilage during an infant's first two or three months.^{7, 11, 12}

Objectives of Presurgical Nasal Alveolar Molding (PNAM) appliance

The objectives of PNAM therapy for unilateral and bilateral cleft patients are, 1) approximate and align the alveolar segments, 2) correct the alar base and cartilage of the affected nostril, 3) reposition the philtrum, nasal septum, and columella along the midsagittal plane, and, 4) lessen closure tension after lip repair.^{7, 8, 11, 13} It also improves certain functions, such as swallowing and breathing, through the elevation of the collapsed nostril.

Clinical procedure of PNAM appliance

The PNAM is fabricated from an intraoral impression of the maxilla, which needs to be handled with caution. If the impression is taken in a clinical environment, a small-tip suction device and oxygen mask should be ready. The impression material should have enough tensile strength to prevent impression material breakage and potential swallowing by the infant. A constant neck support should be used during the impression. The base of the molding appliance, made from acrylic resin, is polished and fitted for insertion. Two stabilizing buttons, added to the base of the appliance with a wire core, allow the direction of the buttons to be adjusted. Extraoral tape and denture adhesive paste can be used to increase retention of the appliance. This molding appliance is frequently adjusted by selectively grinding the area into which the alveolar bone segments are supposed to move. These gradual changes result in a more symmetrical maxillary arch.^{6,7,11,12,14}

The success of the molding appliance is improved by taping together the lip segments across the cleft. The tape produces a controlled movement of the alveolar segments, improves the deviated columella, and moves the affected nostril into a balanced, upright position. The PNAM appliance assists practitioners in meeting the goal of presurgical orthopedics,

which is to normalize mid-facial anatomy by reducing some of the forces that frequently cause collapse of the maxillary arch.

Parents are instructed to remove the appliance daily in order to clean any food debris and/or secretions from the appliance. The appliance is coated with fresh denture adhesive and reinserted.

Once the alveolar segment is reduced, one or more nasal stents are added. Each stent consists of a .025 mm stainless steel wire with a coil attached using a retention loop in hard acrylic connected to the labial flange of the molding plate. The extraoral portion of the wire ends in a bulb made from a hard acrylic core covered outside with soft acrylic¹⁵ for contact with the affected nasal dome and alar cartilages (Figure 3). The nasal stents provide support and mold the affected nostrils into a more symmetrical shape. The nasal stent is designed to apply selective pressure gradually to either stretch or pull the affected tissues of the nose.

External PNAM appliances increase columellar width, decrease columellar deviation, and increase the height of the affected nostrils, resulting in a more symmetrical appearance. Internally they achieve reduced alveolar clefts as well as aligning and approximating the alveolar segments (Figures 5, 6).^{3,7,10,11,13}



Fig. 7. Case 1. Unilateral cleft palate patient with PNAM appliance treatment three weeks (intraoral)



Fig. 9. Case 1. With PNAM appliance and nose stent at five weeks (intraoral)



Fig. 11. Case 1. PNAM appliance treatment at eight weeks (intraoral closeup)



Fig. 8. Case 1. With PNAM appliance treatment at three weeks (front view)



Fig. 10. Case 1. After PNAM appliance treatment at eight weeks (front view)



Fig. 12. Case 1. PNAM appliance treatment at 12 weeks (intraoral)



Fig. 13. Case 1. PNAM appliance treatment at 14 weeks



Fig. 14. Case 1. PNAM appliance treatment after 14 weeks (front view)



Fig. 15. Case 1. Six weeks after surgery shows excellent results

The Advantages and Disadvantages of PNAM appliance

The PNAM appliance offers several unique advantages. One is producing increased symmetry of both the soft and hard tissues. This in turn decreases the number of primary labial and nasal surgeries, which minimizes the extent of scar tissue formation. The molding appliance also serves as an obturator that facilitates the creation of negative pressure during the swallowing process. This increases the amount of formula ingested and shortens the feeding time, resulting in greater feeding efficiency. In addition the tongue can be trained to occupy a better position during both the swallowing phase and resting position. The ability of the PNAM appliance to treat both unilateral (Case 1, Figures 5-15) and bilateral (Case 2, Figures 16-23) cleft lip and palate patients clearly demonstrates its advantages (page 35).

The primary challenge of the PNAM is that it is a labor-intensive procedure. It requires a significant parental commitment, without which the pediatric dentist's continuing adjustments cannot be productive. In addition, minor trauma to soft tissues can occur because of the continuous use of tape to reposition the affected segments of the lip.¹¹ However, overall the advantages far outweigh any disadvantages.

Conclusion

Dentists play an important role in treating cleft lip/palate patients. With appropriate dental support as discussed above, the probability of a satisfactory result is much improved. Excellent results have been achieved using the PNAM appliance by increasing both hard tissue and soft tissue symmetry, which decreases the extent of surgery required for repairing the lip and palate. With the proper multi-disciplinary approach to dental treatment, cleft-lip-and-palate patients can anticipate favorable esthetic and functional results, and consequently an improved quality of life. The dentist can be the angel who makes a difference and enhances the life of cleft-lip-and-palate patients.

References

1. Derijcke A, Eerens A, Carels C. The birth prevalence of oral clefts: A review. *Br J Oral Maxillofac Surg* 1996;34:488-494.
2. Vanderas AP. Birth prevalence of cleft lip, cleft palate, and cleft lip and palate among races: A review. *Cleft Palate J* 1987;24:216-225.
3. Huebener DV, Liu JR. Advances in management of the cleft lip and palate. *Clin Plast Surg* 1993;20:723.
4. Rosenstein SW, Jacobson BN. Early maxillary orthopedics: A sequence of events. *Cleft Palate J* 1967;4:197.
5. Rutrick RE, Black PW, Jurkiewics MJ. Bilateral cleft lip and palate: Presurgical treatment. *Annals of Plastic Surgery* 1984; 12(2) 105-117.
6. Rutrick RE, Cohen SR, Black PW et al. Presurgical orthopedic management of the unilateral cleft lip and palate newborn patient. *Operative Tech in Plastic and Reconstr Surg* 1995; 2(3):159-163.
7. Grayson BH, Santiago PE. Presurgical orthopedics for cleft lip and palate. In: Aston SJ, Beasley RW, Thorne CHM, eds. *Grabb and Smith's Plastic Surgery*. 5th ed. Philadelphia: Lippincott-Raven; 1997:237-244.
8. Maull DJ, Grayson BH, Cutting CB et al. Long-term effects of nasoalveolar molding on three-dimensional nasal shape in unilateral clefts. *Cleft Palate Craniofac J* 1999;36:217-244.
9. Millard DR Jr, Latham RA. Improved primary surgical and dental treatment of clefts. *Plast Reconstr Surg* 1900;86:856.
10. Grayson BH, Cutting CB, Wood R. Preoperative columella lengthening in bilateral cleft lip and palate. *Plast Reconstr Surg* 993;92:1422-1423.
11. Grayson BH, Santiago PE, Brecht LE et al. Presurgical nasoalveolar molding in infants with cleft lip and palate. *Cleft Palate Craniofac J* 1999;36:486-498
12. Nakajima T, Yoshimura Y, Sakakibara A. Augmentation of the nostril splint for retaining the corrected contour of the cleft lip nose. *Plast Reconstr Surg* 1990;85:182-186.
13. Santiago PE, Grayson BH, Gianoutsos MP et al. Reduced need for alveolar bone grafting by pre-surgical orthopedics and primary gingivoperiosteoplasty. *Cleft Palate Craniofac J* 1998;35:77-80.
14. Wood R, Grayson BH, Cutting CB. Gingivoperiostoplasty and midfacial growth. *Cleft Palate Craniofac J* 1997; 34:17-20.
15. Bardach J, Salyer KE. Cleft palate repair: anatomy, timing, goals, principles and techniques. In: Shprintzen RJ, Bardach J, eds. *Cleft palate speech management: A multidisciplinary approach*. St. Louis, MO: Mosby-Year Book Inc. 1995;102-136.

Dr. Chen introduces the Youkhannas to the Presurgical Nasoalveolar Molding instrument—a timeline

July 28, 2009

After seven ultrasounds, selection of a child care center, and a personal commitment to nursing her expected child, Melissa Youkhanna heard her newborn, Jacob, gasping for breath as he left the birth canal. He was whisked away for special care. Then she heard the doctor's words, "Your baby has a cleft lip. Don't worry. It's fixable." The doctor wasn't yet aware that Jacob also had a cleft palate.

"I was shocked," Melissa says; "I ran the whole gamut of emotions. I was wondering, Did we cause this? Will I be embarrassed by him? Then they brought Jacob to me. I looked at his face, and I loved him."

Melissa checked out of the hospital early in order to join Jacob, who had been transferred from the Victorville hospital to Loma Linda University Medical Center. Her reservations at the child care center and her commitment to nurse her child were no longer viable. Jacob would spend two weeks in the hospital learning how to eat. Melissa and Jack, Jacob's parents, settled into Ronald McDonald House at Loma Linda. Family members—mother, father, an aunt, nieces and nephews—spent a week at a nearby hotel to support Melissa and Jacob. It took two weeks to find a bottle suitable for feeding Jacob.

Melissa went online. She absorbed information, communicated with moms across the nation who had children with cleft palates, sent for brochures. And she learned that Dr. Jung-Wei Chen, program director of LLUSD's pediatric department, uses a unique new technique for correcting cleft palates. Upshot: instead of what can customarily be more than 10 surgeries, the Presurgical Nasoalveolar Molding (PNAM) appliance makes corrections that will require only four or five future surgeries. It reduces the size of the cleft gap, aligns the alveolar ridge, and increases nasal symmetry before surgery, Dr. Chen explained. And it would require parent-surgeon-dentist partnership.



Jacob before PNAM and surgery



Jacob after PNAM and one surgery

October 2009

At two-and-a-half months of age, Jacob returned with his mother to Loma Linda University School of Dentistry and met with Dr. Jung-Wei Chen and the entire PNAM team for the first procedure. Weekly trips ensued: 90 miles round trip. The cleft, which started out at 9 millimeters, was diminishing. And Jacob's nose was lifted.

November 26, 2009

Not quite six months old, Jacob underwent his first surgery. Part way through the surgery, the Youkhannas got a message from the surgeon, "Will you sign an agreement that we correct both palate and lip? It looks promising for us to do both today."

"It was a big surprise," Melissa recalls, adding, "Of course we signed." Jacob emerged from surgery, the shape of his lip corrected, the gum line fused, the palate closed. Melissa speaks knowledgeably of the procedure: "Forty percent of the patients need a palate revision after surgery, but for Jacob there is no opening of the palate." His nose, she notes, has a barely noticeable flat side.

March 2010

When he was eight months old, the Youkhannas traveled to Georgia to introduce Jacob to family members. With no surgeries scheduled for the next two or three years, Melissa rejoices. "During one of two or more future surgeries," she says, "he'll have a nose revision. We might as well make it perfect. And then there will be ortho, of course." Melissa speaks as a proud mother: "He's like a normal baby. He eats regular food. He drinks from a regular bottle. He looks beautiful."

Jacob's arrival placed the Youkhannas on a new program. "It was rough," Melissa admits. But she speaks courageously: "There's no way I would leave him in child care. He requires extra attention. He will be needing speech therapy. I've become such an advocate. I want to help other moms." She looks upon the PNAM team as Jacob's best hope for the future. Jacob is in competent care.

Bilateral complete cleft lip/palate

The following figures from Case 2 illustrate the treatment of a bilateral cleft lip and palate patient. The patient arrived for treatment at two-and-half months old—a bilateral complete cleft lip and palate. The premaxilla is protruded and located in the higher position with both soft and hard tissue defects (Figures 16 and 17). Figure 18 shows the patient—after three months of PNAM appliance therapy—ready for surgery. His alveolar segments are touching and his arch form is quite smooth and symmetrical. Figure 19-22 illustrates the surgical procedure. Fig 23 exhibits the encouraging post-operation results.



Fig. 16. Case 2. Before surgery patient exhibits bilateral cleft lip and palate.



Fig. 17. Case 2. Intraoral view before surgery shows nasal asymmetry and premaxilla protrusion.



Fig. 18. Case 2. After 13 weeks with PNAM appliance, cleft has closed and nasal symmetry has improved.



Fig. 19. Case 2. Surgery had just begun.



Fig. 20. Case 2. During surgery nasal flap has been positioned.



Fig. 21. Case 2. After suturing the lip closed well and nasal symmetry improved.



Fig. 22. Case 2. After suturing, nasal symmetry appears nearly normal.



Fig. 23. Case 2. One week after surgery, a satisfying outcome.

Cleft lip, cleft palate, and Presurgical Nasal Alveolar Molding questions

Circle the letters of the correct answers.

1. Which of the following statements is correct?
 - a. Cleft lip and palate is very rare in the US (1/~1,000,000)
 - b. Cleft lip and palate is very common in the US (1/~100)
 - c. Cleft lip and palate has a high prevalence in the US(1/~1000)
 - d. None of the above
2. The special care follow-up team for cleft lip and palate patients usually consists of:
 - a. Feeding consultant, speech pathologist, ENT specialist, pediatric dentist, orthodontist, oral surgeon, social worker
 - b. Pediatrician, plastic surgeon, ENT specialist, oral surgeon only
 - c. Plastic surgeon, speech pathologist, ENT specialist, orthodontist, oral surgeon, social worker
 - d. Pediatrician, plastic surgeon, feeding consultant, speech pathologist, ENT specialist, pediatric dentist, orthodontist, oral surgeon, social worker, prosthodontist
 - e. Everyone available
3. A dentist has which concern for the cleft lip and palate patient?
 - a. More aggressive prevention plan
 - b. Congenital missing or supernumerary tooth
 - c. Ectopic eruption
 - d. Enamel hypocalcification /hypoplasia
 - e. All of the above
4. Who should be involved in treating cleft lip and palate patient?
 - a. A pediatric dentist
 - b. An orthodontist
 - c. An oral surgeon
 - d. A prosthodontist
 - e. All of the above and any dentist
5. Which of the following statements is false?
 - a. Presurgical orthopedic molding treatment is a new treatment.
 - b. Presurgical orthopedic molding treatment started in early 1500.
 - c. Different appliances were invented by Mc Neil, Latham, Grayson, etc.
 - d. All of the above
6. The objective of PNASM therapy is to:
 - a. Approximate and align the alveolar segments
 - b. Correct the alar base and cartilage of the affected nostril
 - c. Reposition the philtrum, nasal septum and columella along the midsagittal plan
 - d. Lessen closure tension after lip repair surgery
 - e. All of the above
7. Which of the following are components of the PNASM appliance?
 - a. Base plate
 - b. Stabilized buttons
 - c. Nasal stent
 - d. a+b
 - e. a+b+c
8. What are the advantages of using PNASM?
 - a. Increase symmetry of both soft and hard tissue
 - b. Minimize the extent of primary lip and nasal surgery
 - c. Improve feeding and tongue training
 - d. All of the above
9. Which one of the following statements is false?
 - a. Taping is very important for the PNASM treatment, not only to stabilize the appliance but also to help in closing the soft tissue.
 - b. The parents' commitment is not very critical for the success of the PNASM treatment.
 - c. PNASM may cause some minor trauma to the soft tissue.
 - d. A proper and multi disciplinary approach of dental treatment is the most beneficial to the cleft lip and palate patients.
 - e. Every dentist can make a difference to the cleft lip and palate patient.
10. What does PNASM stand for?
 - a. The last name of inventing doctor
 - b. Pre Nasal and Maxilla
 - c. Presurgical Nasal Alveolar Molding
 - d. Postsurgical Nasal Alveolar Managing
 - e. Pinned Nasal Alteration Modeling

 Name _____ DDS/DH Lic.# _____

Date _____ Mailing address _____ / _____ / _____
Street City State Zip code

Phone _____

After answering the questions, detach, and mail to:

LOMA LINDA UNIVERSITY Continuing Dental Education, 11245 Anderson Street,
 Suite 120; Loma Linda, CA 92354 or you may fax completed form to (909) 558-4858

For questions please call: (909) 558-4685

Cost \$25.⁰⁰ Please circle: AMEX VISA DISCOVER Credit Card No: _____

Expiration date _____ CVS No: _____

NOTE: LOMA LINDA UNIVERSITY SCHOOL OF DENTISTRY IS AUTHORIZED TO CONFER 2 HOURS OF
 CALIFORNIA CONTINUING DENTAL EDUCATION CREDIT FOR THIS HOME STUDY COURSE.

Remarkable first: LLUSD and DPRK exchange delegations

W. Patrick Naylor, DDS, MPH, MS

Dean Goodacre Hosts Delegation from the Democratic People's Republic of Korea

In February of this year Dean Charles J. Goodacre quietly hosted an historic visit by a four-person dental delegation from the Democratic People's Republic of Korea (DPRK), referred to in some parts of the world as North Korea, arranged in conjunction with North Carolina-based Samaritan's Purse. This initiative began with a telephone call to Dean Goodacre from Dr. Mel Cheatham, a retired neurosurgeon, on behalf of the Reverend Franklin Graham, president and CEO of Samaritan's Purse and the Billy Graham Evangelical Association. Dr. Cheatham is a member of Samaritan's Purse board of directors and a key advisor to Reverend Graham.

What people may not know is that the Graham family has maintained a relationship with the DPRK for quite some time. Mrs. Ruth Bell Graham, Franklin Graham's mother, attended high school in Pyongyang, North Korea, in the 1930s before she met and married famed evangelical minister, Reverend Billy Graham.

It is the Reverend Franklin Graham who now carries on the Graham legacy, making several visits to the DPRK in recent years. So when the DPRK government wanted to arrange an exchange with the United States to explore contemporary dental education and clinical practices, officials turned to Franklin Graham. That is when Dean Goodacre was asked if the Loma Linda University School of Dentistry would be willing to partner with Samaritan's Purse and host dentists and



Figure 1. Dean Charles Goodacre meeting with Dr. Mel Cheatham (to his right) of Samaritan's Purse and DPRK delegates, Dr. Ryu Hwan Su (center) and Mr. Ri Yong Phil, in Prince Hall's Dean's Conference Room, as Dr. Sean Lee (standing) translates.

W. Patrick Naylor,
DDS, MPH, MS,
associate dean, Advanced
Education, Loma Linda
University School of
Dentistry



other officials from the DPRK. Dean Goodacre readily agreed and what transpired was a behind-the-scenes diplomatic effort to open the doors of the School of Dentistry (Figure 1). Over the course of eight days, the two dentists, one physician, and one government official/interpreter attended presentations by the dean and lectures by faculty translated into Korean. On the clinic side, they observed predoctoral students (as well as graduate students and residents) treating patients in our various clinics (Figures 2 and 3). The delegates also scrubbed in on two implant surgeries performed in the operating rooms of the implant dentistry clinic and observed several surgical procedures



Figure 2. Dr. Lee (standing) explains to Dr. Won (left) and Dr. Pak (right) the procedure performed by Dr. Montry Suprono (seated) for his patient in the LLUSD graduate prosthodontic clinic.



Figure 3. (left to right) Dr. Sean Lee explains to Dr. Won and Dr. Ryu how dental implants are placed and restored at LLUSD, with Dr. Jaime Lozada (white coat), director of the Advanced Education Program in Implant Dentistry, leading a tour of his graduate clinic.



Figure 5. Dr. Ryu and Dean Goodacre embrace at the close of the farewell dinner held at the Mission Inn. Looking on are Mr. Edward Porteous (left) of Samaritan's Purse, Mrs. Ruthy Goodacre, and Mr. Ri (right).

performed in the oral surgery clinic. The delegates were even given a tour of the Loma Linda University Medical Center. The purpose of the DPRK visit was for its dentists to better understand how dental education is provided in the United States, and see how we integrate technology into our curriculum.

As part of the tour, Dean Goodacre took the four-member DPRK team to the Good Samaritan statue on the Loma Linda campus (Figure 4). Dr. Ryu is deputy president of the Pyongyang Medical University Hospital, Dr. Won is chief of the hospital's dental department, Dr. Pak is a member of the dental department, while Mr. Ri is a member of the Korean-American Private Exchange Society (KAPES) and served as the interpreter.

Dr. Sean Lee, associate professor, Restorative Dentistry, and a member of the Center for Dental Research, was instrumental in translating questions during clinic tours and presentations dealing with dental issues (Figures 2 and 3).

Dean Goodacre hosted a farewell banquet at the Mission Inn in Riverside, California, that included the DPRK delegates, members of Samaritan's Purse, and the School of Dentistry administrators and faculty who helped to arrange the week-long visit (Figure 5). The dean presented each delegate

with signed copies of textbooks written by School of Dentistry faculty, copies of his electronic educational programs, and several Loma Linda University memorabilia.

LLUSD participants included Dr. Ronald Dailey, executive associate dean; Dr. Paul Richardson, associate dean, Clinic Administration; Dr. W. Patrick Naylor, associate dean, Advanced Education; Dr. D. Graham Stacey, associate dean, Student Affairs; Dr. Joseph Caruso, associate dean, Strategic Initiatives and Faculty Practices; Mr. Ron Secor, associate dean, Financial Administration; Dr. Fred Kasischke, associate dean, Admissions and Service Learning; Ms. Kathleen Moore, associate dean, Educational Support Services; and Dr. Yiming Li, director, Center for Dental Research. Dr. Lane Thomsen, chair, Department of Oral Diagnosis, Radiology, and Pathology, worked with Dr. Lee to have his oral pathology lectures translated into Korean for the benefit of the delegation. Drs. Naylor and Thomsen represented the School of Dentistry in a reciprocal visit to the DPRK that took place between March 26 and April 9, 2010.



Figure 4. (L-R): Dr. Pak In Chol, Dr. Won Hae Nam, Dean Charles J. Goodacre, Dr. Ryu Hwan Su, and Mr. Ri Yong Phil

LLUSD Delegation Visits the Democratic People's Republic of Korea

On the heels of the historic visit to the School of Dentistry by guests from the Democratic People's Republic of Korea, the School of Dentistry collaborated with Samaritan's Purse to arrange a reciprocal trip to the DPRK.

Because of long-standing prior commitments, Dean Goodacre was unable to make the journey himself, so he invited Dr. W. Patrick Naylor, associate dean for advanced dental education, to represent him and to be joined by Dr. Lane Thomsen, chair of the Department of Oral Diagnosis, Radiology, and Pathology (ODRP). In the six weeks preceding their visit Drs. Naylor and Thomsen contacted dental manufacturers and suppliers to solicit donations of equipment and materials to take with them to North Korea. By the time of their departure, they had collected enough donated items to fill three footlockers, two large boxes, four suitcases, and a duffle bag, including everything from cotton rolls to a programmable porcelain furnace, along with two complete metal-ceramic porcelain kits.

Joining the Loma Linda contingency were Mr. Edward Morrow, director of World Medical Missions for Samaritan's Purse and Dr. Felix Martin del Campo, a private practitioner with a dental practice in Visalia, California, and member of Samaritan's Purse's board of directors. Dr. Martin del Campo joined Drs. Naylor and Thomsen at Los Angeles International Airport (LAX) for the trip to the DPRK with a brief stopover in Beijing, China, where they were joined by Mr. Morrow (Figure 1). Following a short visit to the North Korean embassy in Beijing to obtain entry visas, the team headed to the Beijing Airport for the two-hour and 40-minute Air China flight to Pyongyang, the capital of the DPRK.

At the airport in Pyongyang, the group was met by representatives from the Korean-American Private Exchange Society and later treated to a welcome dinner at the Potonggang Hotel, where they were housed for the first part of their stay (Figure 2). The following morning they left for their ultimate destination, the dental department of the Pyongyang Medical University Hospital, located on the top floor of a five-story

building (Figure 3). Their DPRK hosts included Dr. Ryu Hwan Su, deputy president of the Pyongyang Medical University Hospital, Dr. Won Hae Nam, chief of the dental department, and Mr. Ri Yong Phil of the Korean-American Private Exchange Society. Over the course of the next two weeks the team members gave formal lectures on a wide variety of topics, and provided dental diagnostic and treatment procedures on a number of patients.

Dr. Naylor set up and calibrated the operation of a Programat P100 programmable porcelain furnace, donated by Ivoclar Vivadent, Inc. (Amherst, NY). He then trained two DPRK

dentists to operate the furnace and use two porcelain systems, In-Line (Ivoclar Vivadent) and Ceramco 3 (Dentsply Ceramco, Burlington, New Jersey) to fabricate metal-ceramic restorations (Figures 4, 5, 6).

Dr. Thomsen took what is believed to be the first digital dental radiograph in the DPRK, using a portable Nomad® unit (Aribex, Inc., Orem, Utah) on loan from the School of Dentistry (Figure 7). He also gave demonstrations

on the recommended technique to perform an oral cancer screening (Figure 8). Although Dr. Martin del Campo had visited the DPRK on five previous occasions, this was the first time he had the opportunity to actually treat patients (Figure 9). Dr. Thomsen also provided many hours of formal lecture presentations to the dental department faculty, staff, and students (Figure 10). Mr. Morrow moved from classroom to clinic to the laboratory to oversee the team's activities throughout the week (Figure 11).

Part of the visitors' scheduled activities included visits to national landmarks and exhibit halls in Pyongyang, attendance at cultural events, and a Sunday trip to Mt. Myohyang, some 150 kilometers north of the capital. Scenes from Pyongyang and Mt. Myohyang are depicted in Figures 15-21.

The visit ended with a formal farewell event, as the DPRK hosts presented certificates and farewell gifts to each of the departing LLUSD-Samaritan's Purse guests (Figures 12-14).



Farewell picture in front of the main entrance to the Pyongyang Medical University Hospital, Pyongyang, DPRK, where Drs. Naylor, Thomsen, and del Campos pose with their DPRK hosts.



Figure 1. Dr. Naylor (left) and Dr. Thomsen at the Beijing airport prepare to check their bags and supplies for the flight to Pyongyang, DPRK.



Figure 4. Dr. Naylor programmed the Programat P100 porcelain furnace donated by Ivoclar Vivadent.



Figure 2. The lobby of the Potonggang Hotel with a painting of Kim Il Sung (right) and his son, Kim Jong Il (left).



Figure 5. Dr. Naylor taught two DPRK dentists during a basic metal-ceramics course.



Figure 3. The dental clinic in Pyongyang Medical University Hospital's fifth-floor dental department.



Figure 6. Dr. Naylor taught the DPRK students to fire their metal-ceramic restorations.



Figure 7. Dr. Thomsen takes a digital radiograph in the dental department clinic of the Pyongyang Medical University Hospital.



Figure 9. In the dental department clinic, Dr. Felix Martin del Campo explains how he performs procedures on his patients.



Figure 8. Following his demonstration, Dr. Thomsen talks a DPRK dentist through an oral cancer screening.



Figure 10. Dr. Ryu Hwan Su, deputy president of the Pyongyang Medical University Hospital, introduces Dr. Thomsen to the faculty, dental students, and staff prior to one of Dr. Thomsen's many presentations.



Figure 11. Mr. Morrow and Dr. Thomsen are accompanied in the lecture room by the two English-speaking KAPES representatives—Mr. Suk (left) and Mr. Ri (right).

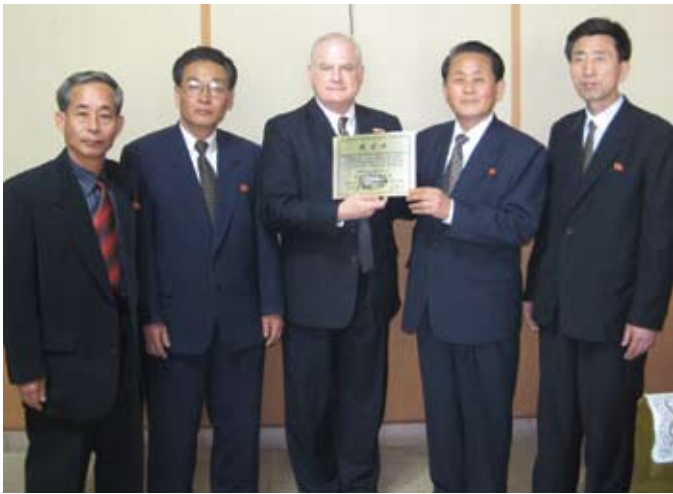


Figure 12. Dr. Ryu presented Dr. Naylor with a certificate recognizing his teaching at Pyongyang Medical University Hospital with other officials looking on.



Figure 15. Dr. Thomsen (lower left) entering the Pyongyang Metro.

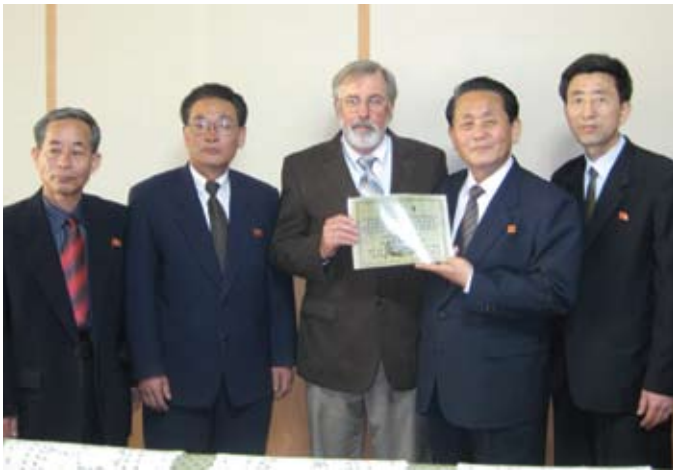


Figure 13. Dr. Ryu presented Dr. Thomsen with a certificate recognizing his teaching at Pyongyang Medical University Hospital as other officials observe.



Figure 16. Scene of the countryside near Mt. Myohyang.



Fig. 14. Dr. Naylor accepted this lovely replica of a traditional building on behalf of the School of Dentistry, a farewell gift from Dr. Ryu, with Dr. Won in the background.



Figure 17. Grand Monument of President Kim Il Sung.



Figure 18. Arch of Triumph



Figure 19. Mt. Myobyang vista

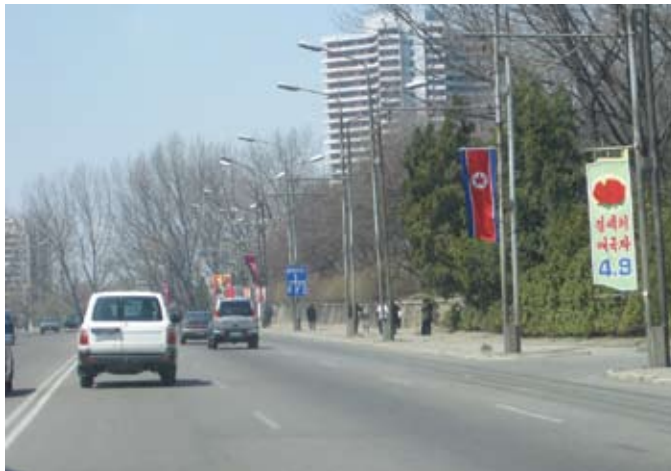


Figure 20. Pyongyang thoroughfare with the DPRK flag (right) in view



Figure 21. The Tour of Juche Idea with DPRK flags in the foreground

Generous dental manufacturers and suppliers

A number of dental manufacturers and suppliers donated equipment and supplies for the dental delegation. Without their support this mission would not have been so successful. The two major benefactors were Ivoclar Vivadent and Dentsply Prosthetics. A list of those manufacturers and suppliers appears alphabetically in the adjacent list.

Individuals or organizations that wish to make a financial contribution or donate additional dental equipment and supplies are invited to send their donations to Samaritan's Purse, c/o DPRK Dental Mission, 801 Bamboo Road, P.O. Box 3000, Boone, NC 28607 USA. Financial contributions also can be sent to the DPRK Dental Mission, Office of the Dean, Loma Linda University School of Dentistry, 11092 Anderson Street, Loma Linda, CA 92350.

AllPro Dental
Dentsply International
Harry J. Bosworth
Proctor and Gamble
Coe/GC America
GC Corporation
Ivoclar Vivadent
Whip Mix Corporation

Student researchers win at LLUSD and CDA

LLUSD dental students from the class of 2011, and dental hygiene students from the class of 2010, made their Student Research Presentations as computerized slide shows at Loma Linda University's Centennial Complex on March 18.

The twelve winning teams of presenters, divided among three categories (laboratory, clinical, and educational), are pictured below.



Clinical first

Adam Burr, Michael Gilman, Patrick Hachee

The Association between Caries Risk Assessment Levels and Streptococcus mutans and Lactobacillus levels

MENTOR: Dr. Brian Novy

CDA Clinical Category, 2nd place



Clinical third

Justin Schmidt, Dane Andersen, Ray Arsenault

SEM Examination of Restoration Margins in Vivo: An Observational Study

MENTOR: Dr. Brian Novy

Nine of the LLUSD dental and three dental hygiene student research team winners entered their projects in the California Dental Association research competition at the Anaheim Convention Center May 13-16 and won nine of the sixteen available awards.

The Loma Linda students' awards—three first, three second and one third (and two honorable mentions)—



Clinical second

Joanne Oh, Christina Chun

Canal Morphology in Mandibular Premolars Using Cone Beam Tomography

MENTOR: Dr. David Jaramillo, Dr. Mei Lu

CDA Clinical Category, 3rd place



Clinical first (dental hygiene)

Lucretia Santana, Allina Lopez, Kirsten Tayler

Needle Gauge and Pain Perception

MENTORS: Dr. Barry Krall, Ms. Joni Stephens

Student researchers (continued)

were worth \$6,100 of the total \$9,200 awarded in scholarships and cash.

Scholarships, prizes, and plaques were available to dental student researchers in three categories: Scientific, Community/Education, and Clinical. The School's dental student teams won first-place honors in two of three categories (Scientific and Community/Education); second-

place honors in all three categories; third place in one category (Clinical); and honorable mention in two categories (Scientific and Community/Education).

Dental hygiene awards were combined into one category, of which an LLUSD student team won first place.



Educational, first place
Filip Orban, Michael Knutson, Scott Arceneaux

A Digital Instruction of Techniques and Principles of Mucoperiosteal Flaps

MENTORS: Dr. Mei Lu, Dr. Wayne Tanaka

CDA Community/Education Category, 1st place



Educational, second place
Michael Sacro, Junie Baldonado, Emilynda Quinones

Effectiveness of a DVD Teaching Tool for Children Ages 5-8 Years Old as Compared to a Conventional Pamphlet

MENTOR: Dr. Wesley Okumura, Dr. Mei Lu

CDA Community/Education Category, 2nd place



Educational, third place
Stephanie Calvillo, Isaac Penalba, Sheida Khazaii-Tabari

Oral Hygiene During Orthodontic Treatment

MENTOR: Dr. Leroy Leggitt, Dr. Mei Lu

CDA Community/Education Category, Honorable mention



Educational, first place (dental hygiene)
Hossai Tabmas, Pamela Slonaker, Sherwin Taylor

Individualized Care Case Presentation

MENTOR: Dr. Adrian Mobilia

Student researchers (concluded)



Laboratory, first place
Joohee Oh, Lily Cha, Sang Yoo

Changes in Shade and Glossiness Relative to Changes in pH Found in Bleaching Agents.
 MENTOR: Dr. Sean Lee, Dr. Mei Lu

CDA Scientific Category, Honorable mention



Laboratory, second place
Bryce Chun, Larina Chu, Michael Hiersche

Electromechanical Luxation: An Application of Dynamic Loading
 MENTORS: Dr. Alan Herford, Dr. Mei Lu

CDA Scientific Category, 1st place



Laboratory, third place
Sophia Sellas, Jeri Bullock, Christie Pogue

In-vitro Comparison of Various Torque Drivers in Implant Prosthodontics
 MENTOR: Dr. Jaime Lozada

CDA Scientific Category, 2nd place



Laboratory, first place (dental hygiene)
Stacy Stroup, Lauren Stewart

Uptake of Fluoride Foam: A Laboratory Study on Human Enamel
 MENTORS: Dr. Wu Zhang, Ms. Joni Stephens

CDA Dental Hygiene, 1st place

2009 Legacy of Leadership

We gratefully acknowledge the support of those who have made a personal commitment to advance the mission of education and service at Loma Linda University School of Dentistry. Philanthropic support is essential as dental professionals of tomorrow are educated today. The School of Dentistry is strong because alumni, friends, faculty, and staff work together.

Voluntary support of more than **\$2,155,193.37** came to LOMA LINDA UNIVERSITY (LLU) from School of Dentistry alumni and friends during the calendar year ending December 31, 2009.

Please join us in celebrating the legacy of leadership by those whose names appear on the following pages. Listed first are donors who have graduated from Loma Linda University School of Dentistry with a doctor in dental surgery (DDS), including those who received this degree through the international dentist program (IDP). Following the DDS class roster are donors who have graduated from the dental hygiene program, the dental assisting program, those who have received an advanced degree, those who have graduated from other LLU schools. The last roster contains the names of non-alumni friends of the School of Dentistry.

Dean's Circle members for 2010 (*those who demonstrate generous philanthropic support to the School of Dentistry with an annual gift of \$1,500 or more*) are indicated in **regent red type**. An asterisk * appears before the names of those who are **Century Club** or **Ivory Society** members (*an annual gift of \$100 or more*). Names in gray type indicate the donor passed away in 2009.

Charles J. Goodacre, DDS, MSD — Dean
 Rachel Terwilligar, CFRE, CSPG — Director of Development
 H. Maynard Lowry, PhD, CSPG — Director of Gift Planning & Special Gifts

DOCTOR OF DENTAL SURGERY (DDS)

Class of 1957

Charles W. Beckett, Jr.

Lowell C. Dobyms
 *Weldon J. Hagen
 *Robert J. Homer
 *George Kuniyoshi
 *Hilbert Lentz, Jr.
 *Glenn U. Richey
 *Willis L. Schlenker
 *Ronald Zane

Class of 1958

*Jack W. Griswold
 Warren T. Kanen
 *James L. McCulloch
 E. Earl Richards

Class of 1959

*Harry J. Beckner
 *Wilber A. Bishop, Jr.
 *John A. Butler
 *Willis M. Fox

**William H. Heisler*
 *Warren J. Knight, DDS
 *George C. Miller
 *Bruce D. Oliver
 *John N. Oliver
 *Richard D. Pfeiffer
 *Edward W. Shreaves
**John S. Uniat*
 *Alan R. Williams

Class of 1960

*Robert W. Addison
 *Jack R. Booker
 *James M. Crawford
 *Vernon S. Eddlemon
 *Ronald J. Fasano
 *Arthur J. Morgan
 *Steven G. Morrow
**Charles A. Placial, Jr.*
**Dale S. Pyke*
 *Benjamin H. Robson
**Thomas L. Thompson*
 *William G. Tym
 *Kenneth R. Wynn

Class of 1961

*Bertram M. Beisiegel
**Virgil V. Heinrich*
**Carlton R. Lofgren*
**Nels E. Rasmussen, Jr.*

Class of 1962

*William S. Asano

*Herbert Church, Jr.
 *Edward B. Cowan, Jr.
 *Veryl C. Drury
 *Billy J. V. Hover
 *Merritt A. Logan
**George T. Matsuno*
 *Lowell D. Plubell
 *R. Larry Shipwick



In honor of their 50th Class Reunion, Dr. Steve Morrow, representing the DDS Class of 1960, presented to Dean Charles J. Goodacre a check for \$50,000, the value of their class gift, which included a bronze bust of a Maasai warrior. The bronze sculpture will be placed on display to remind all of the commitment to a NASDAD service learning project at the Maasai Dental Clinic in Kenya, East Africa. The bust of the warrior was a gift by class members Rodney and Irene Longfellow.

*Lorrell D. Smick
*J. Howard Sprague
*Roy C. Wilkin, Jr.

Class of 1963

**Leif K. Bakland*
*Robert S. Coupland
*E. Jan Davidian
**Charles M. Holman*
**Eugene D. Voth*

Class of 1964

*Frank E. Bonnet
Eldon Charles Dickinson
**Gerald R. Douglass*
*Byron S. Moe
*Gerald L. Muncy
*Dwayne L. Nash
*Richard C. Prince
*Stanley S. Tamashiro
*Anthony G. Theodorou

Class of 1965

*Noel E. Kirkby
**W. Eugene Rathbun*
**Marlene M. Schultz*
*Jerry M. Wolf

Class of 1966

*Ronald A. Brady
*Norman L. Britton
**Ernest N. Chan*
*Calvin R. Devnich
*Norman D. Ensminger
*Douglas G. Ho
*H. Clifford Johnson
*Douglass B. Roberts
**David B. Sandquist*

Class of 1967

**Franklin E. Baughman*
**Gilbert L. Dupper*
**Edward J. Foss, Jr.*
**Andrew D. Harsany*
**Howard Y. B. Kim*
*Bill J. Miller
**Robert L. Roy*

Class of 1968

**Norman E. Corbett*
*Gary Cornforth

*Kenith R. Craig, II
*Charles A. Cutting, Jr.
**Clelan G. Ehrler*
*Virgil O. Erlandson
Philip C. Opperman
**Richard L. Parker*
**Gordon M. Rick*
**Clifford R. Tym*
*H. C. Van den Hoven

Class of 1969

*Ronald E. Cox
**David L. Johnson*
*Frederick J. Mantz
**R. Wayne Martin*
*Glenn H. Murphy
*Quint P. Nicola
*John K. Pearson
*Claude K. Robertson
*Julian C. Tsai
**Garry W. Ziegenbagel*

Class of 1970

*Timm H. Eickmann
*Wiley M. Elick
*John L. Eller
**Warren M. Francis, Jr.*
*Ronald C. Hansen
**Lee R. Ingersoll*
**John A. Johnson*
*Robert D. Kiger
**Jay W. Magnuson*
*Peter C. Nelson
*Theodore A. Peterson
*John E. Peterson
**Clyde L. Roggenkamp*
**James C. Szana*
**Robert C. Williams*

Class of 1971

**Frederick L. Bunch*
**Irving M. Feldkamp, III*
**Gerald A. Fillmore*
**Charles J. Goodacre*
**Kenneth W. Pierson*
**R. David Rynearson*
Dennis F. Steele

Class of 1972

**Stanton S. Appleton*
**Galen M. Fillmore*

*Richard G. Hackett
**Glenn E. Hahn*
**Darleen H. Hemmerlin*
(House)
**Donald R. Kellogg*
*Ralph S. Kurti
*Cary M. Lai
*Ronald L. Otto
**Gary H. Parmely*
*Bill Duane Reeves
**Paul L. Richardson*
**Charles S. Ricks*
**James G. Schulze*
**Roger K. Van Santen*

Class of 1973

**Joseph M. Caruso*
*George B. Clarke, Jr.
*Nicholas C. Davis
**Jon Raymond Frost*
*Thomas E. Haglund
**James J. Hein*
**E. Patrick Hoag*
**James T. Jesse*
**Ronald B. Mead*
*Richard L. Meckstroth
*Eric S. Munson

**Wayne E. Pundt*
*Edward R. Russell
*Donald H. Stewart
*David N. Trujillo
**R. Bruce Walter*

Class of 1974

**Donald C. Bassham*
*John J. Black
**Thomas G. Dwyer*
*Michael J. Fillman
*Donald D. Gregg
**Walter G. Hadley*
**John P. Houghton*
**Daniel M. Kunibira*
**Wayne A. McDaniel*
**Daryl B. Payne*
*Kent L. Phillips
**Robert M. Pollard*
*William J. Pritchard
**Ernest L. Stromeyer*
**Gerald E. Weitz*
*Edward R. Zbaraschuk

Class of 1975A

*John T. Blount
**Michael P. Boyko*



Over \$1 Million Dollars has been contributed by the Class of 1970 since their graduation. Dr. Clyde Roggenkamp presented the 2010 class gift to Dean Charles Goodacre at the Alumni Banquet in February.

"It is totally unexpected that that we would raise this much," commented Dr. Roggenkamp. "I remember how frustrated we were our senior year, to the extent we used our gift for an open-sea fishing trip. With new-found respect and appreciation, many of us realized that despite some perceived glitches in our curriculum we were quite well prepared by exceptionally capable instructors. The resulting individual professional successes undoubtedly led collectively to generous gifts to our school."

*Merlin D. Ekvall
 ***Joseph H. Elison**
 *Kenneth E. Hodgkins
 ***Richard E. Jennings**
 *Bruce M. McCloskey
 *Leonard W. Pierce
 ***Larry Z. Rusk**
 *Kenneth G. Sjoren
 *Daniel E. Tan
 ***William B. Wager, III**

Class of 1975B

*Michael D. Cole
 ***Edward A. Fletcher**
 *Tony Guillen
 *Anthony B. Lier
 *W. C. Mathiesen
 *Kirkland B. Reuer
 *Franklin E. Ritz
 *Robert T. Thorn
 ***Gary A. Waldon**
 ***Lawrence Sou Fong Yee**

Class of 1976

***Paul M. Baumgartner**
 *Randy E. Buchmiller
 ***Pek S. Chu**
 ***Gary J. Golden**
 *Roger A. Hall
 *Robert S. Leach
 *Julie A. McGhee
 (Whitcombe)

Class of 1977

***Ron M. Ask**
 *Eldon P. Carman
 ***Tom T. P. Chen**
 *Otis Bayerd Kittle
 ***James Alan Libby**
 ***Michael M. Moore**
 *Elliot R. Shulman
 *Michael B. Sutherland
 ***Barry J. Uldrikson**
 *Robert C. Wageman

Class of 1978

***Robert C. Apuy**
 *Peter N. Berbohm
 ***I. Keith Corbett**
 *John Myrl Jones
 ***Robert E. Meister**



Dean Goodacre enjoys meeting alumni in various parts of the country throughout the year. Alumni pictured here met him in Walla Walla, Washington.

*Robert D. Mitchell
 *Gary R. Nelson
 ***Doyle R. Nick**
 ***Wendy Sugiono (Ekasusanti)**
 ***Mavern S. Suprono**

Class of 1980

*John F. Adams
 ***Kent A. Anderson**
 *Robert W. Beck
 *Mark J. Carpenter
 ***Kalfred G. S. Chun**
 ***L. Todd Cochran**
 ***Vernon S. Eddlemon**
 ***Dee E. Golles**
 ***Floyd D. Hansen**
 ***David W. Hor**
 Donald C. Hszieh
 Oi-Chin Liaw Hszieh
 *Richard E. Kent
 ***Chuck S. Kon**
 *Marlin G. Meharry
 ***Brady D. Rusk**
 ***Timothy J. Szutz**
 *Donald G. Trunkey
 ***Timothy G. Willis**

Class of 1981

*Timothy C. Ballweber
 *Amsale Berhanu-Demissie
 *Glenn C. Blum
 ***Wendell B. Bond**
 ***Tedmund T. M. Chun**
 *Wilmer D. S. Hechanova
 *Michael L. Jacobsen
 *Kenneth A. King
 *Collet R. Masillamoni
 *Mario J. Samaniego
 *Clark E. Schneekluth
 *Rodney F. Siddall
 *Terry N. Thomas

*Michael Todorvic
 *Mark A. Wasenmiller

Class of 1982

*Larry W. Dunford
 ***Daniel A. Flores**
 *Katherine Galvan (Loye)
 *Richard B. Hanson
 ***David J. Jo**
 ***Steve R. Libby**
 *John C. Matterand, Jr.
 *Roy H. Morita
 ***S. Stewart Whang**
 *Leslie D. Wheeler

Class of 1983

*Heidi L. Christensen
 *Lewis G. Cox
 *Susan Y. Crawford (Young)
 *William S. Hall, II
 *Randall E. Hoff
 *Michael B. Lee
 *Frederick R. Matthews
 *Guy R. Nash
 *Theodore R. Nelson
 *Thomas L. Reynolds
 ***Tony S. A. Sayegh**
 *Gerald P. Tadej
 *Gary L. Thiele
 *Peter T. Uyeyama
 ***Barry K. Weber**

Class of 1984

*Dr. Harold C. Avila
 ***Christine J. Choi**
 *Byron W. Davis
 *C. Steven Edney
 *Michael E. Ewert
 *Bryan D. Harris
 *Gregory D. Mitchell
 Dee D. Moshos
 *Kerry M. O'Connor

***James D. Powell**
 ***Susan D. Richards (Cloninger)**
 ***Yudi S. Sugiono**
 ***Charles J. Walker**

Class of 1985

*Gregory J. Blash
 ***Pasqualino DiCiccio**
 *Melvin K. Donesky
 ***Viviane S. Haber (Sayegh)**
 *Beth Hamann (Rhode)
 *Randall J. Iwasuki
 ***Craig A. Kinzer**
 ***Edward Ko**
 *Brian S. Noguchi
 *David H. Otis
 *W. Brent Robinson
 *Kirk A. Specht
 ***Judith M. Strutz**
 *Jill W. Webster-Kerbs

Class of 1986

*David G. Bauman
 ***John L. Cummings**
 *Brian L. Danielsson
 *James A. Grabow
 ***F. Richard House, Jr.**
 *Lawrence W. Kaban
 ***Richard Y. Kunibira**
 ***John R. Liu**
 *David M. Rizk
 *Thomas M. Sims
 *Craig B. Story
 *Arthur J. Wu

Class of 1987

*Charles I. Brimhall
 ***Robert K. Higa**
 ***Brian M. Lane**
 *Cheryl Lee
 *Deborah L. Morgan
 *Dawn K. Peshka
 ***Stuart H. Rich**
 *Michael D. Teichman

Class of 1988

*Denette A. Anderson
 ***Craig A. Andreiko**
 *Kevin J. Andrews

***Charlene R. Chan**

Lori L. Everett

Judy Heinrich (Shearer)**Christian P. Manley**

*Robert K. Meckstroth

***J. Todd Milledge**

*Donald B. Miller

Thomas L. Morton**Bonnie A. Nelson**

*Brent E. Shakespeare

Jayson F. Tsuchiya**Revadee T. Veranunt**

*Mark G. Womack

Peter S. Young*Class of 1989**

*Craig A. Chamberlain

***Gary H. Chan**

*Jady L. Chiakowsky

*Eric D. Fraser

*Richard A. Hardt

*Edward M. Ines

*Kendall E. James

*Daniel I. Lee

***Heather E. Martinson**

*Douglas G. Ness

*Karl D. Peach

***Sonia T. Sabbagh Hariri**

*Cameron S. Stewart

K. Trish Van Dyke

Curtis E. Vixie*Class of 1990**

*Daniel M. Beisiegel

*Gloria M. Buckwalter

Hon V. Cao**Carolyn Ghazal*****Barry K. Krall**

Barry J. Lasko

*Nannette R. Sherman

(Reynolds)

*Ronald Roy A. Simus

*Liana R. Wolfe

Class of 1991

*Hilda Y. Fokas (Yacoub)

*Steven R. Irwin

***Scott M. Lee**

Jose V. A. Paterno

***Stacy M. Pham**

*Perrisofian Putrasahan

*Prakash Thuraisamy

Class of 1992

*G. Kris Hansen

*Charles N. Reeves

Dwight D. Simpson**Shufei Wang**

*Jeffrey A. Warren

Class of 1993*Vahaken Robert
Arslanian

*Brent L. Bakken

*Bernard C. H. Chang

*Jason T. Chiakowsky

*Sam D. Dason

***Robert A. Handysides**

*Ted Tae-Yul Im

*Rick J. Nichols

***Leon Roda, III**

*Bradley Scott Strong

*Huyen-Trang N. Ton

Class of 1994***Andrea K. Choi*****Alan S. Herford*****Wesley K. Okumura**

*Maynard O. Pogue

*Hooman M. Zarrinkelk

Class of 1995

*Jennifer Bielas (Rowland)

*David Long Ngoc

Reimche-Vu

*Ebrahim Shafieha

*George J. Tao

*Joon Sang Yoo

Class of 1996***Raquel I. Baranov**

*Debra L. Cook (Finch)

*Todd O. Erhard

*Caren P. Hull

*Bryan C. Johnson

Un Tjubianto Lee

McDaniel

Gregory W. OlsonRahadian Krisnan
Putrasahan***Joelle Taves Speed (Taves)**

*Dane Scott Thomas

Class of 1997

*Vitali Bondar

*Hung Xuan Do

*Michaela C. Neagu

*Jui Ray Pan

Junko Yamamoto*Class of 1998**

*Gurrinder Singh Atwal

*Peter R. Bond

Holli C. Riter**Najwa Y. Shaja**

*Cindy Sumarauw

*Duane Shigeru Tamashiro

*Allison Christina Trout

*Donald S. Witherow

Class of 1999

*Jeffrey C. Payne

*David Eugene Rogers

*Jodi Sceville (Swanberg)

*Brooks Joseph Uniat



One happy dean . . . Dr. Charles J. Goodacre was presented with a check from each of the honor classes at the 2010 Alumni Reunion Banquet.

Class of 2000*Madelyn Lucille Fletcher-
Stark

*Zina Fargo Johnston

*Tong Liang

*Fred Ou-Yang

*Todd Alvin Young

Class of 2001

*Samuel A. Demirdji

*Eunice J. Hong

***Doris R. Kore**

*Annie Lan Chi Ngo-

Barnes

*Shawn P. Pesh

*Shawn P. Rusk

Class of 2002***Ronald C. Abaro**

*Sanjeev R. Bhatia

*Byron E. Diehl

*Todd B. Ehrler

*Michael J. Erickson

Ping Hai**David R. Hiebert**

*Sunny Hutchinson

*Rehana Khan

*Eduardo C. Lopez

***N. Jared Nation**

*Keri L. Smith

*Garima Talwar

*Julian M. Tudose

James Ywom



NASDAD received a gift from Dr. Ray Damazo of the fully equipped Maasai Dental Clinic located within minutes of the Maasai Mara Game Reserve near Nairobi, Kenya.

Through a cooperative effort with NASDAD, LLU dental students will be able to do a service learning rotation to this clinic. An endowment fund is being developed which will fund into perpetuity travel/expense scholarships for students and faculty.



Class of 2003

*Brian S. Chu
 *Ryan J. Colburn
 *Joseph M. Elison
 *Anita George-Job
 *James I. Gibson, III
 *Heather H. Lauer
 *Marlon C. Peter
 *Naveen V. Samuel
 *Jeffery W. Sceville
 *Ryan P. Watkins

Class of 2004

*Marcelo V. Bada
 *Gabriel Enriquez
 *Stacie Dawn Fenderson
 *Maile Sook Chung Kim
 *Robert C. Lee
 *Timothy M. Lethin
 *Aurina Gek-Hong Poh-
 Matacio
 *Hongwei Wang

Class of 2005

*Jae K. Bok
 *Benjamin R. Bowen
 *Seok W. Nichols
 *Heidi J. Pahls (Apuy)
 *Marcus A. Paulson
 *Crystal E. Pierson
 *Edward C. Pyo
 J. Kristian Rapisarda

Class of 2006

*Jordan N. Buzzell
 *Rami R. Jekki
 *James H. Lee
 *Elizabeth B. Robbins
 (Ramsey)

Class of 2007

*Zacharias Joseph
 *Christian B. Pahls
 *Hieu Tan Phan
 *Amy M. Staker

Class of 2008

*Sheldon T. Blood
 *Alethea C. Coelho
 *Patricia Ramos

Class of 2009

*Brian Evans
 *Dane Lee-McClurg
 *Mervin O. Moya
 *Christopher J. Wood

**DENTAL
HYGIENE****Class of 1961**

*Patricia Emmerson
 (Giddings)
 Joan S. Kelch (Schulman)
 Naomi C. Kray (Claxton)
 Lola L. Murray
 Beverly A. Perris (Ordway)
 Judith A. Steel

Class of 1962

*Mary C. Quishenberry
 (Bradshaw)
 *Pauline T. Stuedli
 (Tahmisian)
 Kathleen F. Swanson

Class of 1963

*Helen Boskind (Stirewalt)
 *Joni K. Evans (Hankins)
 Kathleen M. Hansen
 (Harrold)
 Verla M. Holub
 *Carol A. Miller (Tague)
 Jeraleen A. Mills

Class of 1964

*Connie L. Dacre (Jones)
 *Sharon S. Golightly
 (Abdallah)
 *Duquessa A. McGuffin
 (Goley)

Class of 1965

Janice I. Leavitt (Hilde)

Class of 1966

*Nancy L. Bunn (Koelsch)
 *Arlene L. Ermshar
 (Qualia)
 *Penny B. Haughey
 *Judith A. Richardson
 *Karen A. Simpson
 (Kannenberg)
 *Judy A. Spindler (Nelson)

Class of 1967

Linda H. Dixon, MD
 Vona L. Dodge (Lobeck)
 *Judith Justus

Class of 1968

*Lorraine K. Ehrler
 (Kragstad)
 *Cheryl Harrison (Rowe)
 Penny I. Jensen (Winn)
 *Suzanne R. Nelson
 (Rouche)
 Cherene Pickett (Comb)
 Sandra G. Vollmer

Class of 1969

*Carol Adams
 *Kathleen Carmicino
 (Hartwell)
 *Pamela J. Feldkamp
 (Newbury)
 *Sherryl J. Gibson
 *Marylois Gibson (Bower)
 *Beverly J. Gottfried
 (Sickler)
 *Christena Graves
 (Keszler)
 *Margaret Guptill (Davis)
 M. Susan Haskin (Prosser)

*Anita C. Jensen
 *Candice Keeney (Young)
 *Janet Kyle (Mcpherson)
 *Joyce A. Moore (Six-
 Christenson)
 *Beverly K. Nason (Deal)
 *Nadine M. Neufeld
 (McDonald)
 *Ivy Ning (Cheng)
 *Audrey L. Simons (Allen)
 *Joni A. Stephens (Ehrler)
 *Judith Strathman
 *Karen J. Van Santen
 (Claridge)

Class of 1970

Sylvia I. Bond (Shaw)
 Bonnie J. Carrick
 (Gadbnos)
 Betty J. Farley (Affeldt)
 *Brit Fillmore (Lokna)
 *Doris I. Harrison
 *Eileen Levy (Gutierrez)
 *R. Marina Raines (Barros)
 Linda Severin (Reed)

Class of 1971

*Darlene Armstrong
 (Petersen)
 *Susan L. Boice (Aitchison)
 *Kathleen Carter
 (Kragstad)
 *Darlene Cheek (Tarouilly)
 *Pearl McDonald (Zalaski)
 Kathleen S. Taylor
 (Swanson)
 Linda L. Vercio

Class of 1972

*Eillen D. Lewis
 (Hammer)

Class of 1973

Glenda L. Carlson (Lloyd)
 *Mary M. Carlton (Jacobs)
 *Vicki C. Hein
 (Christensen)
 Erna A. Horne (Konrad)
 *Shirley Kono (Gima)

*The Dental Hygiene Class of 1969
 has given out more in student
 scholarships than any other
 Dental Hygiene class. Given the
 present economic reality,
 scholarships are more important
 now than ever before.
 With Cassandra Pace are
 Joni Stephens and Nadine Neufeld.*



Class of 1974

*Deanne Morita (Mitoma)
 *Susan T. Potts (Zeller)
 *Rebecca C. Willis

Class of 1975

*Barbara L. Christensen
 *Ruth Ann Deetz (Fisher)
 Marlene J. Savage (Kanen)
 *Janet G. Wager (Potts)

Class of 1976

*Elena M. Francisco
 (Ybarra)
 *Linda Rotondo
 (Randolph)
 Kathryn Seale (Boaz)

Class of 1977

*Colette Sharer (McCoy)
 Gwendolyn M. Wood
 (Anderson)

Class of 1978

*Debra A. Comm (Quast)
 *Yvonne Hilde (Ruhling)
 *Jenell D. Hollett (Eli)
 Donna J. Spano (Newman)
 Kendra Kohfeld-Stout
 *Delby L. West (Crook)

Class of 1979

*Laura L. Halgren
 (Whitcomb)
 Susan L. Hurt (Weaver)
 Barbara R. Jean
 *Janet L. Klooster
 *Colleen Whitt (Palmieri)
 Jeryl L. Ziegler-Badour

Class of 1980

*Sandra G. Benson
 (Grindley)
 Judith L. Nowack (Curry)
 *Shelley K. Slater (Lewis)
 *Kristi J. Wilkins (Boas)
 *Beverly D. Wombold
 (Nahorney)

Class of 1981

*Karen K. Agee (Larsson)

Cathy A. Knoechel
 (Loderstedt)
 Darlene Niderost (Duvall)
 Lora J. Pence (Zudell)

Class of 1982

Shelley L. Hayton
 (Griswold)
 *Shirley A. Lee

Class of 1983

Susan Cinotti (Anderson)
 Elmezen Martin (Oliverio)
 Doris I. Rojas
 *JoEllyn K. Wheeler
 (Westbrook)

Class of 1984

*Virginia D. Chamberlain
 Gloria J. Ho-Donesky
 Deardra R. Hopkins-Welch
 Sherilyn C. Long
 *Thanh T. Nguyen
 Martha J. Redfearn (Rugen)

Class of 1985

*Vicki M. Chamberlain
 (Mascaro)
 Kandice K. Cummings
 (Kincaid)
 *Lori J. Jessop (Kahler)
 *Marcia R. Lang
 (Dickinson)
 Heather R. Plascencia
 *Ellen B. Young (Silver)

Class of 1986

Lynette S. Brodsky
 (Trenchuck)
 *Lora S. Matson
 *Kim Swett (Kuhn)

Class of 1987

*Sandra A. Pappas (Nash)

Class of 1988

Laura Bohnstedt (McRay)
 *Janelle H. Fairhurst
 *Shirley W. Pope (Wong)



At a live auction held during at the Annual Dental Hygiene Alumni Luncheon, at the Benedict Castle in Riverside, California, a total of \$5,400 was raised for scholarships.

Class of 1990

*Debra L. Gerger
 (Krumhauer)
 Heidi L. Kellar (Hultine)
 *Karyn D. Mertz (Jones)

Class of 1991

Leona M. Fahey (Winters)
 *Rhonda D. Hamerslough
 Grace A. Li

Class of 1992

*Charmain Dunn (Janke)
 *Nora Elloway (Nazerian)
 *Susan C. Lindner

Class of 1993

*Tricia Alvarez (Emerson)
 Sarina Tjiam

Class of 1994

Carolyn M. Bourque-
 Mixon
 Sylvia R. Castro-Asquith
 Jennifer J. Glendinning

Class of 1995

*Teresa Anderson
 (Thomas)
 *Cynthia L. Collier

Class of 1996

Wyndi J. Holzer

Class of 1997

*Connie M. Carpenter-
 Klim
 *Heather M. Wilson

Class of 1998

*Taunya L. Claybrook
 Jenny K. Deen (Kavanagh)
 Michelle L. Hoffer
 *Maryann L. Huffman
 (Dasher)
 *Karen M. Simonds
 (Kizziar)

Class of 1999

*Jill Hodson (Carruthers)
 Sonja Louise Oliekan-
 Pardue
 Mayelin R. Santos (Veluz)
 Rhonda L. Schenck
 (Stearns)

Class of 2000

*Max A. Alamillo
 Darcie E. Bell
 *Carrie Ann Davies
 Kandi S. Neal

Class of 2001

Julie M. Lim

Class of 2002

*Kellie R. Bergendahl
 *Melissa A. Fuhrmann

*Kange J. Lee
 *Suzanne M. Pepper
 (Lieberman)
 *Leanna L. Wacker

Class of 2003

Michael L. Tobola

Class of 2004

*Anne Golden
 Amber Roni Preciado

Class of 2005

Sheila Alexander-Rapisarda
 Jennifer Alido
 Patrice K. Lyon

Class of 2006

Class of 2007

Nicole M. Pidgeon

Class of 2008

*Lindsey M. De Freece
 Michelle K. Rees
 Charis B. Wright

Class of 2009

DENTAL ASSISTING

Class of 1975

*Karen McVoy-Harris

GRADUATE PROGRAMS/ CERTIFICATES

J. Milford Anholm
 Roy D. Atkin
 Jeffery C. Biggs
 Gunther Blaseio
Douglas M. Brown
Chien-Ho Chen
Joosung Chung

John M. Cornali

Daniel J. Drye
 Robert E. French
 Brett J. Garrett
 G. Rodney Heath
 C. Robert Henry, Jr.,
 Robert B. Hoffman
 Brent Hurst
 Jeffrey M. Javelet
Mathew T. Kattadiyil
 Vicky Nguyen Kazandjian
 John R. Lee
 Howard Lee
 Peter Lubisich, IV
 Erik H. Madsen
 W. Michael McFadden
 Dween S. Muse
 David Sy Nguyen
 Dana Thai-Hanh Nguyen
Stephen H. Paik

John E. Pratte

Tracy Reiner
 Karen Elinor Rodden
Dana Shaltry
Richard A. Simms
 David L. Sparks
Richard F. Stafford
 Romeo I. Stoll
Jason A. Straw
 Raymond M. Sugiyama
 Blake Synowski
 William T. Veal, Jr.
 Gloria Yanez

OTHER LOMA LINDA UNIVERSITY GRADUATES

- *James Anholm, MD*
- Emily Jane Brown, MD
- Ray L. Foster, MD
- *Ruthy Goodacre, RN*
- *Ella H. Haddad, DrPH*
- Lewis H. Hart, MD
- *William Hooker, PhD*
- Margaret V. Kaufman, RN
- ***Arlene Klooster, RN '48, RDH '71 (Judson*)*
- *Elizabeth A. Koppel, MD '43*
- *Arlene M. Lee, RN '49, MSN '70 (Robert L. '59*)*
- Betty S. Lee, RN (Patrick S. '85*)
- *Kathleen L. Moore, MHIS '99*
- Walter P. Ordelheide, MD
- *Mrs. James (LaHoma) Schulze, RN '69*
- *D. Graham Stacey, PhD*
- Ann Steiner, DMD, MPH
- Verna Unger, MD
- Raymond P. Van den Hoven, MD
- *Mrs. Gary A. (Carolyn) Waldron, RN '74*

FRIENDS OF THE SCHOOL OF DENTISTRY

- 3M Unitek Corporation
- AAID Research Foundation
- Zach & Lillian Abaro
- Agio Skin Enhancement Center
- *Margaret Alai, DDS*
- American Institute of Oral Biology
- American College of Prosthodontists
- American Orthodontics Corporation
- John M. Anholm
- Rosita M. Aprecio
- Lolita A. Aprecio
- Arrowhead Dental Specialties
- Atascadero High School
- L. Byrne Austin, DDS
- *Nadim Baba, DDS*
- Brent R. Barton
- Arnold & Mabel Beckman Foundation
- Mr. & Mrs. William Bell
- Ada L. Beltran-Cruz
- Ivine & Sarah Belz
- Arnold & Mabel Beckman Foundation
- *Suzanne P. Berger, DDS*
- *Frederick A. Berry, DDS*
- William & Anne Bing
- Mr. & Mrs. Erling J. Bligard
- Barbara Bostwick
- Mr. & Mrs. John Boyne
- Brasseler USA
- Emily Jane Brown, MD
- *Mrs. Joe (Julie) Caruso*
- California Dental Association Foundation



Ruthy Goodacre chats with Dennis and Pam Meidinger at the Dean's Reception for alumni, colleagues, and friends at the American Dental Association Convention, Honolulu, Hawaii. October 1, 2009.



Sufficient funding has been obtained to name space in the Loma Linda Center for Dentistry and Orthodontics on Hospitality Lane. The spaces being named are:

- Alden B. Chase Video Conferencing and Learning Center
- J. Milford Anholm Graduate Orthodontic Clinic*
- Thomas J. Zwemer Conference Room*

This project was made possible through the generosity of alumni, faculty, staff, and friends of the School of Dentistry. * Indicates this space is not yet fully funded.



- California Dental Hygienists' Association
- Thad Loren Champlin, DDS, MSD
- Ernest & Gloria Chan Fidelity Gift Fund
- **Jung-Wei Chen**
- Chi Chi Chapter OKU
- **Glen A. Cloninger, AIA**
- Colgate-Palmolive Company
- **Ronald J. Dailey, PhD**
- **Nancy L. Davidson**
- Dentsply International, Inc.
- Dentsply North America
- Dentsply/GAC International, Inc.
- Mary J. Donahue, MBA
- Ray & Lorna Duterrow
- **H. Joan Ehrler**
- First Baptist Church of Redlands
- Ray L. Foster, MD
- Dr. & Mrs. Alfred Frank
- Fraser Hope Foundation
- G. Hartzell & Son
- **Kathleen Gabriella**
- George C. Gamboa, DDS, MS
- Dennis & Jeannette Gehre
- Jon K. Gibson
- Jami Grames
- Duane Grummons, DDS
- **Edmond A. Haddad, PhD**
- Hiam Marie Haddad-Stetkevich
- Lewis H. Hart, MD
- Suzanne H. Henderson
- **Jeffrey M. Henkin, DDS, MS**
- C. Gordon Hewes, PhD
- **John B. Holmes, DDS**
- Hospitality Dental Associates
- John I. Ingle, DDS
- **Chip Ingraham, DDS**
- Innovative Medical Marketing
- **Marjon Jahromi, DDS**
- William B. Johnson, DDS

- **Eunice Johnson (Arthur W. '58*)**
- Johnson & Johnson Services, Inc.
- Johnson & Johnson Healthcare Products
- Christian Johnston, Esq.
- Richard E. Jones, DDS
- **Fred Kasischke, D.Min.**
- Margaret V. Kaufman
- **Albert C. Koppel, DDS**
- Donauvin Frank Krause EdD
- **Shirou Kunihira, PhD**
- Daniel & Linda Kunihira Family Foundation
- Sean S. Lee, DDS
- **John W. Leyman, DDS**
- **Yiming Li, DDS**
- LLUSD Special Care Dentistry
- Loma Linda University Dental Group, Inc.
- Loma Linda University Health Services
- Drs. William A. and Edna Maye Loveless
- **H. Maynard Lowry, PhD**
- Mrs. Holly Henderson Mauer
- Ben B. Maze, DDS
- Lester Medford, MD
- **Vabik Meserkhani, DDS**
- Jacqueline Miller
- Teresa P. Montgomery
- William Moon, DDS
- Dr. Carlos Munoz-Viveros
- Bill & Clara Nash
- National Association of Seventh-day Adventist Dentists
- **W. Patrick Naylor, DDS, MPH, MS**
- Caregivers for Benjamin E. Nelson
- Nobel Biocare, Inc.
- Orbit Imaging
- **Mrs. Daryl (Kathi) Payne**
- Walter Peter Ordelleide, MD
- June V. Orme
- Pacific Dental Services, Inc.
- Palo Alto Center for Pulmonary Disease Prevention
- **David Pfeifer, DDS**
- Isabella Piedra-Munoz, DDS
- PMPH USA, LTD.
- The Procter & Gamble Company
- Pyramid Orthodontics
- Stacey & Patricia Redican

- Rocky Mountain Orthodontics
- Rotary Club of San Bernardino Crossroads
- John D. Ruffcorn
- Stephen Sachs, DDS
- Thom & Betty Seaton
- **Ronald J. Secor, MBA**
- Sherwood & Mary Shreaves
- Grace B. Shreaves
- Significance Foundation
- ****Charles T. Smith, Sr.**
- Dr. Charles L. Smith
- **Rod Staker, DDS**
- **Susan Staker**
- Ann L. Steiner, DMD, MPH
- Mrs. R. W. Stewart
- Stryker Cranio-maxillofacial
- Synthes (U.S.A.)
- **Susan Szutz**
- **Wayne K. Tanaka, DDS**
- **Rachel Terwillegar, CFRE**
- **Larry D. Trapp, DDS, MS**
- Verna Unger, MD
- Unihealth Foundation
- University of the Pacific
- Raymond P. Van den Hoven, MD
- Wachovia Foundation Matching Gifts Program
- Dr. & Mrs. Ivan E. Williams
- Wade A. Williams, DDS
- Thomas Ying, DDS
- **Wu Zhang, MD**

(*) Deceased

****Honorary Dean's Circle Member**

*Service is
our Calling*



In the preparation of this report great care was taken to verify the accuracy of all records; however, errors may have occurred. Please contact the Office of Development at (909) 558-4969 to report any error. Please accept our sincere apologies for any error or omissions.

Gary Allen

Born in Estacada, Oregon, **Gary Allen, SD'74**, grew up in McMinnville, Oregon, graduating from Laurelwood Academy and preparing for dental school at Fresno State and Valley College in San Bernardino. Working at Loma Linda University Medical Center he met and married Elaine, his life-long companion.



Dr. Gary Allen

Upon graduation at LLUSD in 1974, Dr. Allen practiced dentistry initially in Fresno and Clovis, California. He then undertook a 15-year assignment in Indian Health Services, which placed him in charge of Mojave Indian dental care in California, Arizona, and Nevada. Living in Laughlin, he commuted to Indian reservation sites to provide

dental care (1984-1999). In an extracurricular pursuit with his Indian acquaintances, he conducted Bible studies.

Dr. Allen was also engaging in NASDAD trips, going to Thailand in 1981 to take care of refugees coming into that country, and spending time assisting at Montemorales University's dental school. It was while he was supporting his four children in church school and college that an unexplained health problem was belatedly diagnosed as diabetes. Ensuing encounters with patients gave him opportunity to help them identify diabetic symptoms and seek help.

With his own health failing, Dr. Allen moved to Colorado eleven years ago. A series of diabetic strokes led to lost vision in one eye; he was repeatedly and doggedly determined to learn to walk and talk again following each episode. After an extended illness, on Father's Day, June 22, 2009, surrounded by his family, Dr. Allen died in Grand Junction, Colorado.

Mourning Dr. Allen's death are his wife, Elaine, of Grand Junction; his sons—Dale of Denver, Colorado, and Randy, of Tampa, Florida—his daughters—Karen Parret of Fresno, and Kim Grotts of Grand Junction—and seven grandchildren.

Violet Bates

Born 1920 in Hankou, China, **Violet Davis Bates, RDH**, would spend 15 of her first 18 years in China, where her parents served as missionaries from Australia.

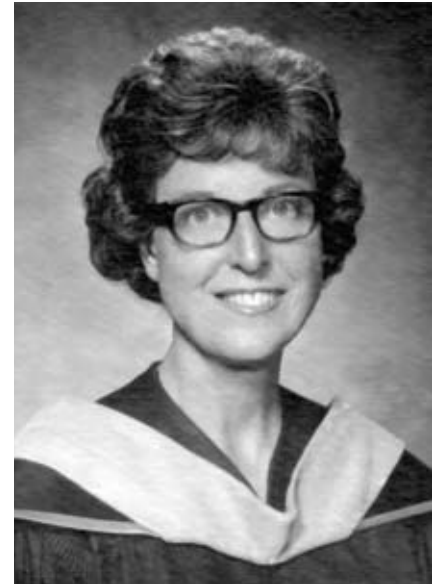
During the next decade, she would immigrate to the States, study at Pacific Union College, marry, achieve American citizenship, and welcome two children, Leonard and Lorna, into her family. A woman of courage, she became one of a small group who broke the all-male barrier at Cal Poly, San Luis Obispo, to complete studies in English literature.

When she learned that LLUSD had a dental hygiene program on the drawing board, she inquired about enrolling. Receiving an invitation to interview at the School, she anticipated acceptance into the program. Instead, Dean Webster Prince announced, "We have examined your credentials and believe you would be the best candidate for directing our dental hygiene program."

Sponsored by the School, Mrs. Bates drove with her children to the University of Michigan, where she completed a dental hygiene program. In 1960 she joined the LLUSD faculty to begin a 24-year teaching position, 22 years as chair.

Mrs. Bates taught classes, conducted admission interviews, and did some of her own secretarial work. Totally devoted to the program she had created "from scratch," she had made it her consuming mission. But anticipating retirement she often said that she would look for a "place with a view" where she could devote four hours a day to reading the books she had lacked time to pursue. In 1987 she settled on a view in Fortuna, on the Northern California coast. Until three or four months before her death there at 90 years of age, she did indeed spend four hours a day reading.

Predeceased by her three siblings, Mrs. Bates leaves her two children, Leonard of Great Falls, Montana, and Lorna Lonnstrom of Littleton, Colorado, nine grandchildren, and 15 great grandchildren. Mrs. Bates requested that friends and alumni support the Violet Bates Scholarship established in her name for deserving Loma Linda University Dental Hygiene students.



Ms. Violet Bates

Steve Beglau

Born in Grass Valley, California, **Steve Beglau, SD'90**, grew up in Yucaipa, graduated from Loma Linda Academy in 1982, where he was voted the most talkative male in his class, and then completed a degree in psycho-biology at La Sierra University. Choosing to follow in the footsteps

of his father, Don Beglau (SD'62), he entered LLUSD's class of 1990.

He had practiced dentistry for 17 years in Oroville, California, until his untimely death on January 8, 2010. A much loved dentist in Oroville, he also established many friends as a member of the Chico Seventh-day Adventist Church, and exerted considerable effort to provide a nurturing home in Paradise



Dr. Steve Beglau

for his three children, Brock, Bryce, and Lexi.

Enthusiastic about water sports, snow skiing, tennis, golf, hiking racquetball, and camping, Dr. Beglau involved his children in his sports pursuits. He also left his children a legacy of devotion to God, a zest for life, and participation in a church family.

A friend characterizes him fondly: "He could tell it like it was and leave you with your sides hurting from laughter."

Predeceased by his youngest son, Blake, in 2001, Dr. Beglau is survived by his parents, Don and Barbara Beglau, his three teenaged children, his sisters, Lori Beglau and Pam Cole (husband Bob), and a host of friends.

In lieu of flowers, the family requests donations to the worthy student funds at Chico Oaks Adventist School or Paradise Adventist Academy, both schools in which Dr. Beglau was actively involved and which his children attended. Donations can be made in care of Newton-Bracewell Chico Funeral Home.

Sharon Foster

Sharon Foster, SD'09, was negotiating with Dr. Ronald Dailey, executive associate dean, to enroll in some dental studies just days before renal cell carcinoma ended her life on December 30, 2009. It was the finale in a battle that began while Dr. Foster was in her second year of dentistry. Surgery had briefly interrupted her studies. She returned, hopeful, with a cancer-free diagnosis spurring her on. When the cancer returned during her third year, it was called "terminal," but Sharon pursued her studies to completion.

Born at home (Hawthorne, California) on January 27, 1981, Dr. Foster was the fifth of her father's nine children. For

her education at Mesa Grande Academy and Pacific Union College, she relied on scholarships, sponsors and loans. She won the admiration of her dental classmates as she braved severe discomfort to pursue her career dream. Her classmates in turn provided her with class notes, prayed with her, sent prepared meals and floral arrangements.

She had enthusiasm for the many aspects of dentistry: diagnosis, time management, patient care, ministry, and business management. At 90 pounds, a notably petite figure in the clinic, she nevertheless charmed her patients with her dedication and attentiveness. Her classmates' testimony remains—her coping skills gave us courage, they have said.

Dr. Foster is survived by her father, Edwin Foster of Chico, CA; her mother, Adriana Foster-Belize, of Central America; four sisters—Desiree Foster-Collins, Melissa, Jacklyn, and Jennifer—four brothers—Doyle, Dorian, Edwin, and Daniel—and two grandmothers, Olive Foster-Wesley and Iola Reneau. A sister, three brothers, and a host of friends and family surrounded Dr. Foster during her last five days at the hospital, singing songs to the patient, who took in everything that was going on until her life ended.



Dr. Sharon Foster

Katherine Im

Born February 8, 1971, in Warren, Michigan, **Kathy Im, SD'98**, was the oldest of three children. A product of Adventist education, she started elementary school at Battle Creek Academy. Continuing on to La Sierra and Andrews University, she completed dental education at Loma Linda University in 1998.



Dr. Katherine Im

Growing up with all male cousins, Dr. Im held her own and quickly became adept at sports, playing football, floor hockey, volleyball, and tennis. Those closest to her would describe her as dependable, endlessly giving, fiercely loyal and a great listener.

Her dental career took her to practices in Eagle Rock, Pasadena, West Covina, Hesperia/Victorville, San Bernardino, and ultimately to San Jose, where she

practiced at Dao Dental Care until her January 28, 2010, death.

Professionally, as a dentist, Dr. Im was meticulous and loved by her patients and staff alike because of the personal care she gave to each of them. She was a perfectionist in her pursuit of crafts and other artistic projects, making sure that they were just right. She loved to read, listen to music, and watch movies.

Her family found significance in the items she kept on her nightstand: the Bible she received when she was baptized, a book (*Ministry of Healing*), a clock radio set 15 minutes fast, a cell phone, a picture of her family, and a notebook with quotations that she prized.

Friends and relatives recall her unselfishness on road trips; she was the one who would volunteer to drive the 3 a.m. shift in the pouring rain. As an aunt, she remained close to all of her nieces and nephews, keeping their birth announcements, Christmas cards, and artwork and noting all of their birthdays. She will be remembered for her unwavering devotion and loyalty to those close to her.

Dr. Im died unexpectedly in Redwood City, CA. Survivors include her parents, Dr. and Mrs. Samuel Im of Battle Creek, Michigan; her younger brother, Albert (wife Lilian), LLUSM'99, of Richmond, California; and her younger sister, Carol, LLUSM'01 (husband Ben Kim, SD'01), of Pleasant Hill, California.

Clifford Morgan

Clifford William Morgan, SD'82, PG'86, was born on March 15, 1948, in Painesville, Ohio. His father's entry into the Seventh-day Adventist ministry soon thereafter led to several family moves—to Maryland, Pennsylvania, Texas, and finally, Nebraska.

Along with good-natured humor and striking red hair, "Chip"—his family nickname—became known for his musical talent. He played the trumpet during school days, but excelled most as a vocalist. As his vocal training developed, he was frequently invited to sing for church services.

Dr. Morgan graduated from College View Academy in 1966 and from Union College in 1971, having majored in history and minored in music.

At Union, he sang with the college select choral ensemble, the Unionaires.

His gifts of spiritual leadership led Dr. Morgan to complete a Master of Divinity program at Andrews University, where he graduated cum laude in 1976, and then pastored in Michigan for two years.

Convinced that dentistry better fit his talents as well as his calling to Christian service, Dr. Morgan earned a dental degree at LLUSD in 1982 and became certified in endodontics in 1986. He resided in Loma Linda and practiced dentistry in the area, heading an endodontics practice in Riverside from 2000 until retiring in 2009.

Music remained Dr. Morgan's foremost avocation. He sang with several choral ensembles most recently with the William Chunestudy Men's Chorus. His fellow choristers were present at his memorial service, singing in a tribute to their colleague.

Dr. Morgan and his close friend and beloved companion of several years, Gail Greenwood, were married on October 24, 2008. Tragically, Gail died the following month.

Dr. Morgan, who died on March 28, 2010, is survived by his stepson, David Greenwood of Riverside, California, his brothers—Timothy, of Glenwood, Iowa, and Douglas, of Silver Spring, Maryland—an uncle, Fred Morgan of Kettle Falls, Washington, his niece and nephew, Michaela and Joseph, and a host of cousins and friends.



Dr. Clifford Morgan

Charles William Pettengill

Born in Portland, Maine, on January 4, 1925, **Charles William “Bill” Pettengill Jr.** enjoyed many boyhood exploits on Cliff Island.

He joined the Merchant Marines during World War II. During his two years’ service, he spent three months with the rest of his crew shipwrecked on Tapitauea in the Gilbert Islands

chain until rescued. He married Harriet L. Jensen in 1946 and together they raised six children. Dr. Pettengill pursued predoctoral courses at Southern Missionary College in Collegedale, Tennessee, and entered Loma Linda University’s first dental class, graduating in 1957.

Returning to Maine with his family, he opened dental practices in Brunswick and Freeport. He was actively involved

in establishing Parkview Hospital in Brunswick, Maine, and Pine Tree Academy in Freeport. Selling his Maine dental practice in 1976, Dr. Pettengill purchased a sailboat and sailed with his family members to the Tapitauea (Gilbert Islands) to provide health and dental care to the locals. Later resettling in Riverside, California, he practiced dentistry well into his retirement.

He established a reputation for his sense of humor, his storytelling, his love of nature, and his generosity, endeavoring to keep his dentistry affordable to keep people smiling.

Dr. Pettengill, who died on February 24, 2010, in Riverside, California, was predeceased by daughter, Cynthia (1975), and son, John (1976). Mourning his death are his wife of 18 years, Susan Pettengill, step-daughter Heather Fan (husband Steve), daughter Carolyn Jenson (husband David), daughter Pamela Brassard (husband James), son C. William Pettengill III (partner, Linda Crowder), and son Peter A. Pettengill, (wife Pele), four grandchildren and eight great grandchildren.

The family suggests that memorial gifts can be sent to CWPettengill Memorial Fund c/o Mark Lombard, Cliff Island SDA Church, Cliff Island, Maine, 04019, for new hymnals, or to CW Pettengill Memorial Fund, Cliff Island, Historical Society, Cliff Island, ME 04019.



Dr. Charles William Pettengill

William Pottorf

William Pottorf, SD’84, died January 11, 2010, following a massive heart attack while outside his office on Dixie Street in Carrollton, Georgia. He was 63 years old.

A native of Sacramento, California, Dr. Pottorf served in the army in Vietnam 1966-68, completed a bachelor’s degree in humanities in 1971, received teaching credentials in 1973, and a master’s in humanities in 1978 before entering dental school. During his undergraduate studies, he supported his family by working for a cement contracting company.

During his 25 years of practice in Carrollton, Dr. Pottorf was active in professional organizations, serving as president of the West Georgia Dental Study Club and chair of

the Dental Health Committee for the Northwestern District Dental Society. He also served on the advisory board of the National Association of Seventh-day Adventist Dentists.

Friends remember Dr. Pottorf — nicknamed Bill “Painless” Pottorf for the care he took with his patients — as someone defined by his selflessness, willing to come to the aid of anyone without asking for any recognition. A long-time Carrollton acquaintance who admired Dr. Pottorf explained: “He didn’t expect anything from anyone in return, and that’s a rare kind of person.” Another friend who played racquetball with him nearly every morning described Dr. Pottorf as a family man who made friends with everybody.

Dr. Pottorf’s wife of 40 years, Peggy Swan, his sons and daughters-in-law—William II (BJ), PhD, and Silvia Klimke; Shawn, PhD and Alex Bar-Kochba, PhD—as well as his first grandchild, Luiza Elena, mourn his death.

The family suggests that memorial contributions be made to the Carrollton Kiwanis Club Foundation, P.O. Box 976, Carrollton, GA 30112.



Dr. William Pottorf

Tim Seidenstricker

Tim Seidenstricker, SD'03, died Wednesday, April 21, 2010, in Chico, California.

Born May 9, 1977, in Lakeport, California, Dr. Seidenstricker attended school in Bakersfield, California, and at Pacific Union College, Angwin, California. A member of Loma Linda University School of Dentistry's class of '03, he created a distinctive impact. A dental professor says, "We remember Tim as such a great dental student to work with," and a classmate says he was "definitely one of the good guys who will be missed."



Dr. Tim Seidenstricker

Moving with his wife after graduation to Chico, California, he practiced dentistry in a partnership with Dr. Michael Lim. His patients rated him as "kind and gentle." Mourning his death, one patient said, "Tim has been our dentist for several years and has been nothing short of wonderful with our family."

Recreationally Dr. Seidenstricker

pursued snow and water skiing. He maintained an active membership in the Sunrise Rotary Club and in the Seventh-day Adventist Church. The greatest love of his life was his four girls.

Dr. Seidenstricker is survived by his wife, Christy; three daughters, Morgan, Taylor and Payton of Chico; his parents, Dr. and Mrs. Keith Seidenstricker; two brothers, Adam and Darin; a sister, Leslie; his parents-in-law, Don and Teresa Hendricks; and a sister-in-law, Lee Anne Hendricks, all of Bakersfield. Memorial contributions may be made to the Tim Seidenstricker Memorial Children's Trust Fund, c/o Newton-Bracewell Chico Funeral Home.

Robert Turner

Robert E. Turner, DDS, MPH, died December 29, 2009

The owner of several affectionate nicknames (Bob/Bud/Doc), Dr. Turner will be remembered by his family as a loving husband, father, grandfather, great-grandfather, and friend. He taught his children values and the benefits of hard work. Robert was a natural athlete and gave his children every opportunity to enjoy sports as they grew up. His sense of dry humor was well known in the family and among friends.

Born in Ventura, California, on April 17, 1931, Robert worked at various jobs until he joined the Air Force in 1952. Coming home in 1956, he found the love of his life living next door. He married Caroline in May of 1957.

Between them they raised three children, John Robert, Lisa Suzanne, and Mark Andrew. Of his many accomplishments he ranked his children number one.



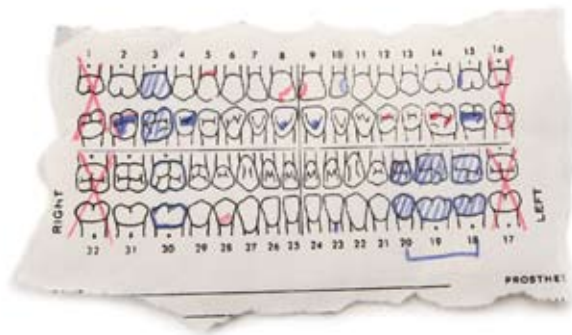
Dr. Robert Turner

Robert worked at the Point Mugu

Naval Base in Electronics before entering Loma Linda University School of Dentistry. He graduated in 1972 with a dental degree and a master's in public health. During 33 years of practice in Port Hueneme he served as President of the Rotary Club and Chamber of Commerce, where he was Citizen of the Year in 1996. Active in politics, he served both as councilman and mayor of Port Hueneme, where he was able to bring water fluoridation to the drinking water of the first city in Ventura County.

Dr. Turner was a lifelong resident of Ventura County, and is survived by his wife, Caroline of 52 years, three children and his daughter-in-law, Sue Beth Turner, seven grandchildren, 2 great-grandchildren and his brother-in-law, Michael Jackson, whom he considered a brother and his wife Melanie. As a Christian, he awaits the return of Christ to take His faithful to a place where there is no more suffering.

Sure, you could do dental charting blindfolded.



It's the business of dentistry
that's the real eye opener.

You're more than a dentist. You're also a business owner, a distinction that requires you to navigate everything from maternity leave to office leases. Thankfully, CDA has published a new Legal Reference Guide for California Dentists with answers to over 200 legal questions pertaining to the business of dentistry. Available only on the Compass, it'll give you the foresight you need to practice like a pro.

cdacompass.com | where smart dentists get smarter.™

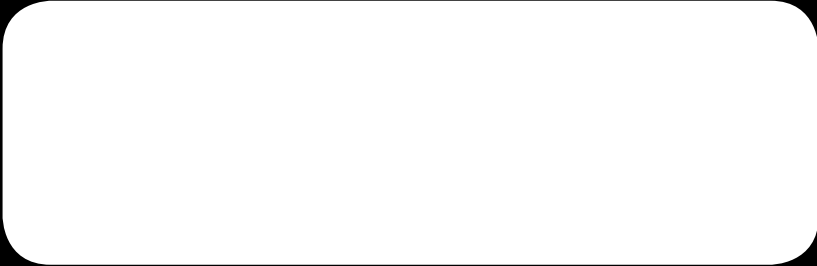




LOMA LINDA UNIVERSITY
School of Dentistry

NONPROFIT ORG
U.S. POSTAGE PAID
SAN BERNARDINO, CA
PERMIT NO. 1272

LOMA LINDA UNIVERSITY
11145 ANDERSON ST.
LOMA LINDA, CA 92350



When you want your practice sale done right.



Bette Robin, DDS, JD

DENTIST ATTORNEY BROKER

Loma Linda Dental 83 Southwestern Law 95



Select Practice Services, Inc.
Dental Practice Sales and Transitions
877.377.6246 • www.BetteRobin.com