

LOMA LINDA UNIVERSITY

Dentistry

On the Heights

with Peter Nelson
page 19

LOS ANGELES FREE CLINIC
page 8

**MISUSE OF STATISTICS IN
DENTAL RESEARCH**
page 11

**50TH ALUMNI STUDENT
CONVENTION**
page 22

Good Things Come to Those Who Wait

The Benefits of Giving Through a Gift Annuity

Charitable gift annuities offer many benefits. In addition to all the standard benefits (tax savings, payments for one or two lives, and support for the mission of Loma Linda University) there is one more – timing. Gift annuities have even more advantages when you choose to wait for the first payment.

Deferred Gift Annuities

When you choose a **deferred gift annuity** you tell us you want to wait a certain number of years to receive the first payment. Because you have deferred the first payment, you will receive a higher payout rate. As with current annuities, deferred annuities offer fixed lifetime payments.



Flexible Gift Annuities

If you want to control the start of gift annuity payments, you may wish to consider a **flexible gift annuity**. Just as with the deferred annuity, you receive your first payment in the future, but, you decide when to begin the first payment. You can choose an initial payment date and change it to a later date if you choose. By waiting longer your payment will be even higher.

Controlling a gift annuity's payment timing gives flexibility to your planning and makes it even better. A gift annuity with a deferred payment start date is also a great way to supplement your retirement income, saving taxes now. There is no limit on the amount with which you fund your annuity.

Whether you choose a **current annuity**, a **deferred annuity** or a **flexible annuity**, you will have the assurance of a lifetime of dependable, fixed payments. One thing to remember is that a gift annuity is irrevocable. Please call us at 909-558-4754 or email us at legacy@llu.edu to receive more information about a plan that will work for you.



Visit Our Website!

Our website provides helpful estate planning information to assist you in creating the plan that is right for you.

www.llulegacy.org

Sign up for our free eNewsletter!

9th Annual Loma Linda Friends & Family Group Cruise presents . . .

Spectacular Spain & Portugal Cruise

14-night round trip from London, England on the brand new
Royal Caribbean Cruise Line Independence of the Seas

Worship Service Speaker:
Randy Roberts
LLU Church Senior Pastor

Try Ice Skating, Rock Climbing,
Shopping & the Surfing Flowrider

12 hours of Loma Linda University Continuing Education Credit available for
physicians, health care professionals, dentists, and oral health professionals

Speakers:

John Testerman, MD, PhD
Chair, Family Medicine
Associate Professor, Family Medicine
School of Medicine
Loma Linda University

Nancy Testerman, MS
Assistant Professor, School of Nursing
Loma Linda University

Topics:

Microskills for connecting with patients to improve patient and professional satisfaction and clinical outcomes

Influencing health behaviors: Using stages of change concepts and motivational interviewing to effect positive change

How and when to take a brief spiritual history

Fares per person start from:

\$2,409.00 inside stateroom
\$2,679.00 ocean view stateroom
\$3,159.00 balcony stateroom
3rd and 4th person in a cabin pay \$1330.00

Cruise Itinerary Includes:

Gibraltar, United Kingdom	Ibiza, Spain
Ajaccio, Corsica	Malaga, Spain
Cannes (Monte Carlo), France	Vigo, Spain
Barcelona, Spain	Lisbon, Portugal

The **NATION** of **WHY NOT**

To register call:
Continuing Dental Education (909) 558-4685
Continuing Medical Education (909) 558-4963

For information about the cruise contact:
University Travel (909) 796-8344
CST2013886-40



Royal Caribbean
INTERNATIONAL

LOMA LINDA UNIVERSITY
DENTISTRY

Volume 21, Number 1 Winter/Spring 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 editor

Rachel Terwillegar, CFRE, CSPG

Layout consultant

Steven Park

Proofreader

Nancy Davidson

Alumni Association officers

PRESIDENT: Perry Burtch, SD'89

President-elect: Tommy L. Thompson, SD'60, MS'64

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.



Clyde Roggenkamp, SD '70, MSD, MPH, contributed his Cessna Centurion II to the aviation program at Andrews University, where it will provide training and instruction opportunities for prospective traditional and bush mission pilots.

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.

Correspondence may be addressed to:

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

Direct advertising 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

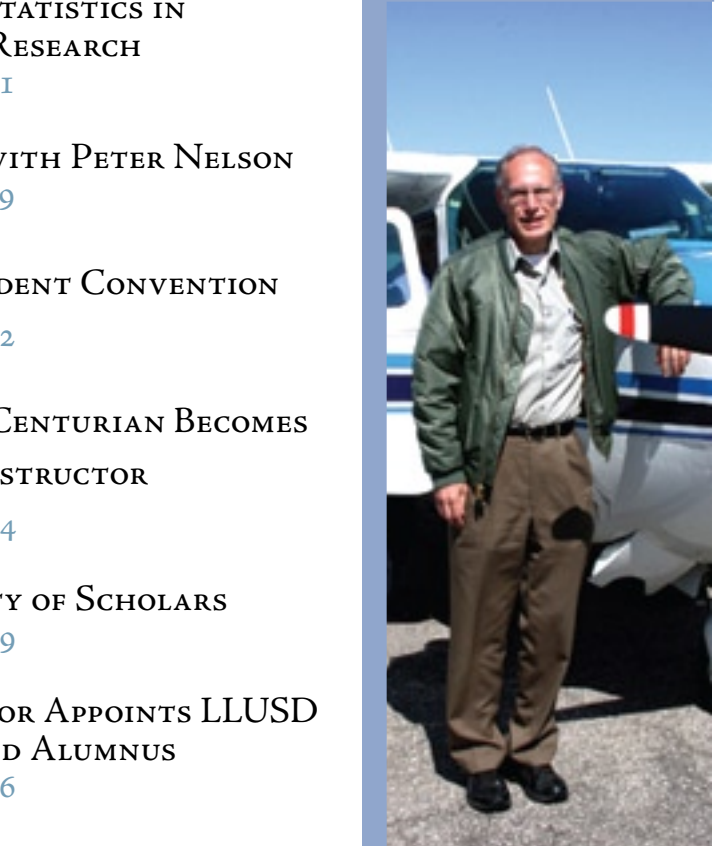
Admissions information:
School of Dentistry

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



Member
American Association
of Dental Editors

The 29,029-foot peak of Mount Everest looms.



C O N T E N T S

LOS ANGELES FREE CLINIC
8

MISUSE OF STATISTICS IN
DENTAL RESEARCH
11

“ON THE HEIGHTS” WITH PETER NELSON
19

50TH ALUMNI STUDENT CONVENTION
22

DR. ROGGENKAMP’S CENTURIAN BECOMES
FLYING INSTRUCTOR
24

LLUSD SOCIETY OF SCHOLARS
29

CALIFORNIA GOVERNOR APPOINTS LLUSD
FACULTY AND ALUMNUS
36

Dean's message:

What really constitutes competence?

Dentists regularly establish objectives that produce desirable, observable results. We assess our interventions by patient satisfaction (generally focused on cost, comfort, and esthetics), durability of procedures, and the overall oral health of our patients.

There are other desirable, observable results, of course, that most dentists achieve: professional prestige, discretionary income, and a sense of personal satisfaction in well-crafted procedures.

Dental educators have additional objectives. Beyond transmitting the dental profession's information, skills, and procedures to students, they are concerned that students understand that their profession is also a life-long learning process. This concern no doubt prompted the 2009 ADEA's House of Delegates' approval of a statement on professionalism in dental education (see "ADEA Statement on Professionalism in Dental Education," March 2009) that identifies six values for dental professionals: competence, fairness, integrity, responsibility, respect, and service-mindedness. Dental students discuss these values in school and, subsequently, in forums dedicated to dental ethics.

I am indebted to one of our School of Dentistry research faculty, Steve Kurti, Jr. PhD, for suggesting that we need a more probing treatment of *competence* than what appears in the ADEA statement, which simply stipulates *acquiring* and *maintaining* "a high level of special knowledge."

A more operationally described objective would specify acceptable outcomes enhanced by that knowledge. But once professionally practical knowledge is acquired and maintained, how many clinicians *improve* their practice and *apply* the new knowledge?

Consider the case of a practicing orthodontist acquaintance of Dr. Kurti. Throughout his career he has monitored professional literature and participated in more than the required continuing education credits. He has satisfactorily "acquired and maintained a high level of special knowledge."

A few years from retirement, in his quest for a "high level of special knowledge," he encounters information about 3D x-ray technology. What is his response? Does he say, "My successful practice demonstrates that I can deliver



excellent orthodontia without the new technology"? Or does he equivocate, "I'll go into 3D technology depending on the ease of acquiring, operating, and interpreting it." Perhaps pragmatism takes over: "I'll explore the costs to determine if it's reasonable for a person near retirement to make this investment."

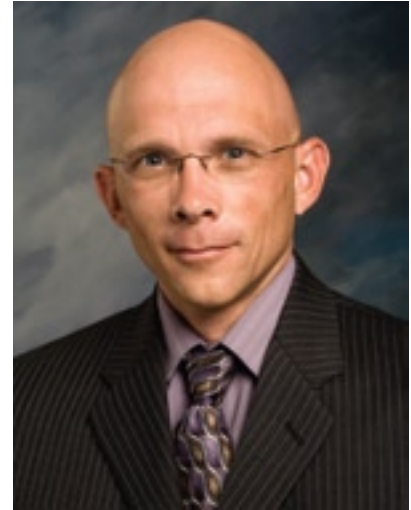
Dr. Kurti reports that the orthodontist of his acquaintance is so strongly convinced of an ethical obligation to his patients to adopt the new practice that he recently invested in 3D x-ray technology to augment his treatment planning. Was this a ludicrous expense for a dentist near retirement? While his decision may not be the appropriate one for every practitioner, true professionalism requires that a clinician carefully review his/her own practices and adopt new modalities when clear evidence affirms their superiority, rather than waiting to be forced by less altruistic concerns.

The dental educator provides the precept: integrity demands adaptation when change provides superior service. Our students need to learn how to select wisely from the swirling pool of commercial promotion and research those innovations that demonstrate merit. This precept aligns with the convictions our faculty share: that ethics practiced by LLUSD faculty, students, and alumni call us to a higher standard.

Charles J. Goodacre, SD'71, MSD
Dean

Alumni president's message:

Your service and leadership



Celebrations abound for the 2010 Alumni Convention!

The Class of 1960 will host its 50th class reunion. The Advanced Education Program in Orthodontics will celebrate 50 years of training, and the Advanced Education Program in Dental Anesthesiology will celebrate 25 years of education. And the Alumni Association will host its 50th Alumni Convention! Loma Linda University School of Dentistry has nearly 6,000 alumni. If you multiply each alumnus by the number of patients treated, communities touched, churches served, and professional organizations led, you can imagine the impact the School (and each of you) has had over the last half century.

Your alma mater's reputation is established and maintained by each of its alumni; as a result, this School has an excellent name. Loma Linda University is well known both nationally and internationally, in part because of newsworthy events and accomplishments, but primarily because of its alumni and the professional integrity you demonstrate.

The Alumni Association recently sent out a questionnaire asking for data on service and leadership in your practices, professional organizations, and churches. I am overwhelmed by the response. Thousands of alumni have responded to specify their impact on those around them. If you haven't yet sent in your questionnaire, or if you need another one sent to you, please contact the Alumni Association at 909-558-4399. Once we have all your data entered into the computer, the results will be published on the web and in a forthcoming DENTISTRY Journal.

But back to celebrations next February: please join us for the Thursday evening banquet that will feature historical videos chronicling the Convention, the orthodontic and anesthesia programs, and the Class of 1960. And join us as well for the continuing education, spiritual, and family events. I've listed some of the events, but you can also find them at dentistry.llu.edu. Navigate to the alumni pages and then to the Alumni Convention events.

Thursday, February 4, 2010

- Scientific Sessions (Mini Clinics)
- Earl's Pearls and Gerald's Interdisciplinary Treatment Plans
- Homecoming Banquet

Friday, February 5, 2010

- Mission Dentists and Prayer Breakfast
- Andy Blount Golf Tournament
- Scientific Sessions (Mini Clinics)
- Framework for Positive and Effective Interactions
- Hygienists and Assistants Luncheon (Benedict Castle, Riverside)
- Auxiliary Luncheon (Hilton Hotel in San Bernardino)
- Student Dedication (University Church)

Saturday, February 5, 2010

- University Church service
- Sabbath Lunch
- Class Reunions

Sunday, February 6, 2010

- 30th Annual Anesthesia Symposium
- Temporomandibular Disorders: Sense and Nonsense

See you in February!

Perry D. Burtch, SD'89, Alumni Association
President, LLUSD

2009 LLUSD alumnus stars in “Straight From the Mouth”

Eric Grove, SD'09, and Ruchi Nijjar Sahota, DDS, recently introduced themselves as the hosts of *Straight From the Mouth*, the American Dental Association's video podcast program that was rolled out at its recent annual session in Honolulu.

Last year's ADA House of Delegates approved a plan for the Council on Communications to develop patient-oriented podcasts (video and audio productions posted on the Internet and designed for playback on computers or portable digital players such as iPods) to help establish the American Dental Association as a trusted resource of oral health information, particularly among younger patients who increasingly seek health information online.

About 40 ADA members submitted audition videos earlier this year in hopes of hosting the podcasts. But it was David Dodell, DDS, a past member of the Council on Communications and consultant to the podcast project, who happened to see an LLUSD class of 2009 video spoof on the television sitcom, *The Office* (available: www.funnytooth.com), produced during Dr. Grove's D-3 year, that piqued his interest in the Loma Linda graduate as a host for *Straight From the Mouth*.

Posted monthly, the podcasts are a new resource for people seeking health information online and will be available on iTunes and the ADA Web site—<http://www.ada.org>. The podcasts feature such dental health topics as tooth whitening, overcoming dental anxiety, dental care for children and dental care while traveling to other countries.

It is obvious from watching a few episodes of *Straight From the Mouth* that the young, co-hosting clinicians are enjoying their new-media educational gig. “We're having a lot of fun

with these, but at the heart of each episode is sound clinical and scientific information to help people maintain their oral health,” said Ruchi Nijjar Sahota, a dentist practicing in Fremont, California, who co-hosts the show with Eric Grove, a 2009 graduate of Loma Linda University School of Dentistry.

The first episode of *Straight from the Mouth* focuses on overcoming dental anxiety. “Movies and TV shows make fun of dental anxiety,” said Dr. Grove. “But people who suffer from it also can suffer the consequences of neglecting their teeth and gums, and that's no joke. In our podcast, we joke around a little, but we also offer practical tips to help people overcome anxiety. Regular dental care is important, and dentists want to make their patients' visits as comfortable as possible.”

Subsequent topics cover oral piercing, tooth whitening, and the importance of regular dental appointments.

View the first podcast at <http://www.ada.org/public/manage/podcasts/index.asp> The next five podcasts cover the following topics:

- Overcoming Dental Anxiety
- Whitening (coming soon)
- Oral Piercing (coming soon)
- Importance of Dental Checkups (coming soon)
- Dental Care While Traveling to Other Countries (coming soon)

The ADA intends its podcasts to provide “general information on dental treatments . . . [and] prompt discussion between dentists and patients about treatment options.”



Caption: Dr. Grove and Dr. Sahota practice their lines.

Your Alumni Association

You may be one of many who have asked, So what's the Alumni Association doing, anyway? The answer: Quite a bit, actually!

Remember the Alumni Student Loan Fund that started in the mid-80s, in response to the double-digit interest loans that were then available to dental students? That fund is alive and well. Over \$11 million have been awarded to students, \$3.3 million are currently in circulation, and the default rate remains well below 2%. Your donations to the Alumni Association are what started that fund and keep it alive today.

Remember your service learning trips? Many of you have reported that those trips were the highlight of your education, they changed your life forever; and some of you continue to go on those trips as supervising dentists. The Alumni Association has been a major contributor to those trips, supporting them to a level that has made it possible for hundreds of students to participate.

Each year for the past decade the Student Dedication program has filled the University Church with families and friends of senior students who receive white coats

embroidered with their name and the University logo, and of incoming students who receive leather-bound Bibles embossed with their names and the University logo. Those students who dedicate their lives to Christ during this ceremony have regularly stated that this beautiful event is very meaningful in bolstering their spirits during the rigors of dental and dental hygiene education.

The Alumni Association office is run very efficiently, using only \$80,000 a year for salaries, benefits, supplies, convention management, and incidentals—a cost that has not risen with inflation for many years. Nevertheless, this office remains dependent on your donations.

The current recession has put a damper on donations everywhere, but these projects and activities still continue and need your generosity. Please don't forget the Alumni Association when you make your gifts to the School of Dentistry. And don't forget to come to the Convention February 4 – 7, 2010, which will be hosted in the new Centennial Complex on the Loma Linda University campus.



Sharon Foster, DDS'09 (1981-2009), proudly wore her white coat



D4 students recite the Dentist's Pledge during the 2009 Student Dedication.

Los Angeles Free Dental Clinic

Fans have filled Inglewood's Forum to watch Magic Johnson wield a basketball or to hear Metallica create reverberations. With quite different expectations, thousands of people stood in a 4:30 a.m. line on August 11. They were seeking one of the day's 1,500 tickets granting admission to



The Inglewood Forum

a free health fair staged in the 18,000-seat arena.

By 6:30 a.m. on August 17, the eight-day event was in high gear, the floor of the stadium converted into 45 exam rooms, 100 dental chairs set in columns, 25 optometry stations, plus mammogram sites and diabetes screening stations. At the entrance, protected by law enforcement officers, patients delivered dire messages. One was announcing, "I have this awful toothache! Can you let me in now?" Another was pleading, "Can you help me get dentures today?"

The din ended abruptly at the door. In one column of operatories, 20 LLUSD dental hygiene students were in place with patients in their chairs, hard at work at 6:30 a.m. Organizationally, the stadium was so orderly that it looked like a military operation, according to James Trott, SD'82, who had arrived to provide dental screenings.

The dental hygiene students looked every inch professional in their face masks, identical beige-yellow gowns, face shields, and glasses. They had arrived with their own set of dental instruments. And like all the on-site health care professionals, they were wearing headlights. Dr. Trott paused to view the myriad glistening lights, "Like looking into a star-studded sky," he said.

In the dental sterilization area, volunteers, thoroughly instructed in the procedures, were processing hundreds of instruments. Carefully color-coded by their gloves, they knew their assignments: white gloves—dirty instruments; blue gloves—sterilized instruments.

Forty LLUSD dental hygiene students who participated

in the event would see 160 patients during their 24 hours of participation. A phone call from Los Angeles prosthodontist Mehrdad Makhani had alerted Kris Wilkins, DH'80, chair Department of Dental Hygiene, that dental hygienists would be needed for the fair.

The class of '09 had just graduated. A new class was due in a matter of weeks. On site, sandwiched in between, were 40 students beginning their final year of dental hygiene. "I don't know what to expect at this fair," Wilkins announced to the students, "but you can let me know if you're willing to participate in what may well be an adventure of a lifetime." Reporting later, Wilkins paused and commented with a bit of awe, "All 40 students volunteered."

Knowing she had a volunteer team, the director of dental hygiene addressed the clinic planners in a series of meetings. "We can come only if I assure my professional colleagues that we can perform quality services." She presented their concerns: Would adequate sterilization procedures be established? Would OSHA safety regulations be observed? And how about chairs for the students—adjustable to achieve the right height for their work? In every instance, the LA planners came through with the requirements.

Both days the students had dental hygiene faculty support from Kris Wilkins, Colleen Whitt, DH '79, Darlene Cheek, DH'71, Janeen Duff, DH'81, and Trish Lennan, RDH, on their feet and circulating (on the cement floor) among the students. The overwhelming challenge of caring for neglected



45 exam rooms and 100 dental chairs fill the Forum floor

teeth and the enormity of the patient load (80 percent of the people were there for dental care) brought a bittersweet reward to the students: their limited time with each person meant they achieved considerable autonomy. At the same time, watching people turned away, they became aware of a huge unmet need

in California. “It was,” Janeen Duff observed, “like a mission trip in our own backyard.”

The experience was richly educational for the students. Dental hygiene student Berenice Briseno reported, “I learned about wall-to-wall calculus and how difficult it is to remove. I learned about heavy stain and really bad periodontal disease. I also learned how it feels to work 12 hours straight.” That meant working with patients in “folding chair” operatories, just slightly more advanced than lounge chairs.

Jason Nelson was surprised to find people in Los Angeles who don’t understand the importance of flossing and



Assembly line instrumentation

brushing every day. He and his classmates were peering into the mouths of people who are among the 2.7 million in Los Angeles County lacking health care.

Allie McEowen, successfully completing gross debridement with a beveled insert for the cavitron on “extremely tenacious calculus,” learned that the calculus was 30 plus years old. Danielle Marshall saw several patients who had never had a cleaning. And the caries from high sugar content of the youngest patients was distressing to the students.

Health care access is a major issue, Dr. Trott pointed out. “But,” he added, “we need to focus on prevention. We need to carry dental health issues into the schools and public arena.”

Even for a seasoned missionary like Dr. Trott (who spent seven years as a dentist at St. Vincent Dental Clinic), the Los Angeles health fair provided cultural shock. “There was no water



Dental hygiene students with an interested observer

in the working area,” he said. “You had to take your gown off, cross the floor of the stadium, and go down a hallway to wash your hands.” Learning dentistry in the LLUSD clinic, “where you wash your hands 40 times daily,” the dental team sensed the challenge of adjusting to the use of a sanitizer—aware that California law permits its use—if you have no blood, debris, or saliva on your hands.

But the greatest challenge for the team was the overwhelming need of the people. Many surprised the hygiene students by saying, “I know you have only an hour with me. I’ll forego the anesthesia to get more done.” Listening, Darlene Cheek marveled that these patients never complained, even though they had extensive perio problems. Moreover, during screening, Dr. Trott heard more than typical dental complaints. “My husband has cancer,” a patient would explain. Or “I lost my job and we had to move back with relatives.” Dealing with unemployed, laid off, or ill patients, Dr. Trott’s time spent in listening evoked words of appreciation, “Thank you for talking to me. This is more than I expected,” a patient said. Sometimes it was a patient who had spent the night in the parking lot—and had come from as far away as San Francisco.

Many patients needed multiple extractions. A woman arrived seeking teeth cleaning; she ended up having three teeth removed—they had rotted off at the gum line. Another woman had three interim bridges in her mouth and a precision attachment lower partial denture, judged to have been done in the last 12 to 18 months. She needed a root canal procedure on a canine tooth, which was an

abutment for the interim bridge. She had lost her job, had no money, no insurance. Three or four dentists who were doing root canal procedures were totally booked.

In a mini-drama on the floor of the Forum, the woman was told, “No way can we fit you in.” Then Dr. Roger Fieldman,



L-R: Jason Nelson, Berenice Briseno, Lauren Stewart, Melissa Gerardo, Chelsea Joe, and Larysa Volynets

the fair’s dental director and president of Los Angeles Oral Health Foundation (he had “put life on hold for three months to prepare for the event”), pledged, “I will bring all my instruments in tomorrow. Come and see me here.”

In retrospect, Dr. Trott recalled, “The days at the Forum presented order amidst chaos. You had this flood tide of need. But by admitting the patients inside a few at a time—they waited in the stands—I saw our dental hygiene students remaining focused, courteous, helpful—in stark contrast to the surging crowd outside.”

In the parking lot some ticketed patients were directed to another quiet site, the School of Dentistry’s Crest mobile van parked alongside five mobile vans from the dental school at USC. In LLUSD’s van, Ron Forde, SD’83, and two dental hygiene faculty supervised dental hygiene students in a setting with a regulation operator. “At the School,” Dr. Forde said, “the students say they get excited if they find calculus. Here they were seeing cases they had never imagined.” Take for instance a young man with a jeweled barbell in his tongue. Underneath, the tongue was encrusted with calculus, providing opportunity for education that noted the risks of infection and of a pierced nerve.

Discussing the impact of the patients on her, Kirsten Taylor commented, “When I started, I didn’t think I would be able to change someone’s life and really make a difference

as a hygienist. At this event two of my four patients almost cried, they were so happy with the treatment.”

And dental hygiene student Katie Savage saw her career pursuits affirmed: “Working with an organization like this makes me realize how much need there is for our professional skills.”

Katie was referencing Remote Area Medical (RAM), a Tennessee-based nonprofit foundation that departed from its usual work in remote areas to launch what became its largest and longest-running free clinic in Los Angeles, where it processed 10,000 patients during the eight days. Perhaps because Stan Brock grew up in the Central Amazon Basin “25 to 35 days march to the nearest town with no health care,” he sensed the need to found RAM. He had managed the world’s largest tropical cattle ranch for 15 years before achieving prominence as co-host on NBC’s *Wild Kingdom*.

A *60 Minutes* segment showcasing a RAM free clinic operation ignited interest in an LA record executive and his wife. Subsequent negotiations made possible the free clinic for thousands of people, if only for eight days. “Free” extended to the use of the stadium, a venue donated by Faithful Central Bible Church, products, instruments, x-ray units, dental chairs, and the services performed by everyone on site: 3,827 volunteers.

Enroute home the students’ reflections on the stimulation of the fair could be compared to can-you-top-this interaction. One offered this superlative: the 51-year-old gentleman who had never had his teeth cleaned. Stacy Stroup summed it up: “I loved the busy-ness, chaos, and excitement. I learned how to

use the ultrasonic scaler without getting the patient completely soaked (by the last patient).” She added, “This event was very well organized, considering the size. You must expect some degree of chaos and just be

prepared to do what needs to be done. It was awesome to help those who really need it.”

Returning to the School of Dentistry clinic, the students’ skills with instruments had advanced notably. “They were using their instruments more efficiently,” observed Darlene Cheek, “because of the intense workout they got in LA.” With screening and history taking performed by others, they were seeing more patients in a day than they ever manage in the student clinic.

Additionally, a day of dealing with people who had fallen through the cracks, observed Dr. Forde, made a distinct impact: “They knew they were engaged in something larger than themselves,” he said. Janeen Duff commented, “I saw them come away with an awakened sense of purpose and compassion,” a truly great combination to find in an entire dental hygiene class.

“I saw them come away with an awakened sense of purpose and compassion.”

Misused Statistics in Dental Research and Challenges of Teaching Statistics

by JAY S. KIM, PhD

Students pursuing a professional degree in the health sciences—dentistry, dental hygiene, nursing, medicine, pharmacy, physical therapy, and public health—are required to successfully complete at least one statistics course. An important aspect of their training is to develop the ability to read literature in their specialty areas critically, and accurately interpret the published research findings so that they can correctly implement the results in their practice for the benefit of their patients. Statistics used in scholarly journal articles in biomedical and health sciences can easily intimidate readers who lack an adequate foundation in statistics. It is well recognized in the dental profession that the best way to pursue lifelong learning is to regularly read dental journal articles to keep abreast of current research findings and advances in the dental sciences [1].

Misused Statistics in Dental Research

As reported by Dawson-Saunders and Trapp [2], many published scientific articles contain shortcomings in statistical design and analysis. Statisticians have long been aware of the widespread misuses and abuse of statistics in scientific literature. Douglas G. Altman was one of the first statisticians to bring this serious issue to the public in his paper [3] regarding medical journals and a subsequent talk given to the Medical Section of the Royal Statistical Society in 1981. I should point out that the misuse of statistics is not unique to biomedical sciences. Alan Blinder, an economist, is quoted as saying, “There are probably an untold number of (statistical) errors buried in economics literature.” In the limited space available for this paper I am unable to describe the many statistical errors I have discovered in dental literature. Hence, I will confine my discussion to a few egregious misuses in the analysis of dental anxiety, fear and pain—a part of dentistry and medicine that has gained serious attention in the past decade.

Dental anxiety, fear and pain are highly subjective and individual; consequently, objective and scientific assessment is extremely difficult. From the standpoint of statistics, dental anxiety, fear and pain are synonymous. The three variables are quantified and analyzed in a similar manner. I will use the variable “pain” to represent anxiety and fear as well.

Typically, data collection on pain is achieved through surveys in which the subjects are asked to respond to a simple question:

How much pain have you experienced?

The subjects are to choose from the following five categories:

- No pain
- Mild pain
- Slight pain
- Severe pain
- Extremely severe pain

This is referred to as the DAS scale or 5-point Likert scale, which is commonly known as an ordinal measurement scale (or ordinal data) in statistics. The categories in ordinal data can be ranked or ordered but cannot be quantified, and the amount of the difference between any two categories cannot be quantified naturally in any numeric value. The definition of ordinal data should be quite intuitive.

Misuse 1. Random Sample. Nearly every paper that analyzes survey data begins by stating that “Based on 427 subjects who were randomly chosen . . .” In survey research it is not easy to obtain a random selection of respondents. The subjects decide whether or not to respond and return the survey. Thus, the samples are typically self-selected. There is a significant difference between a self-selected sample and a random sample. Self-selected samples are known to be biased, often dangerously biased. Therefore, survey research requires special scrutiny because of the potential damage that misleading results can cause.

There is nothing more frightening to statisticians than self-selected samples consisting of a limited number of responses, to which hardly any statistical credibility should be given. One glaring example of this is the student course evaluation systems that colleges and universities conduct at the end of each term. This is not to disparage the value of the system, but one must understand that the system in its current format has little statistical value.

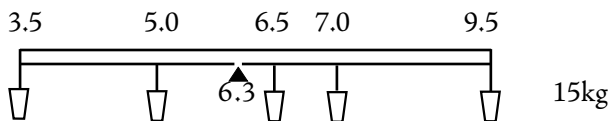
Misuse 2. Mean and SD. In current pain literature, virtually every investigator assigns the values 1, 2, 3, 4, and 5 to the five pain categories:

1. No pain
2. Mild pain
3. Slight pain
4. Severe pain
5. Extreme severe pain

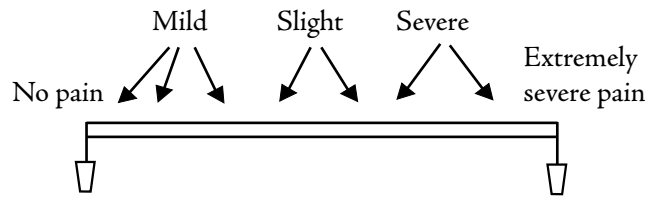
With very few exceptions, the investigators report the mean and standard deviation (SD) of the ordinal data, calculated from the assigned values. The problem is that the values 1, 2, 3, 4 and 5 are completely arbitrary. These are only for the convenience of data analysis. The numbers have absolutely no sensible quantitative meaning at all. It should be stressed that they are nothing more than convenient labels. One can just as well select five different social security numbers at random, instead of 1, 2, 3, 4, and 5, and assign the smallest social security number to No Pain, the largest social security number to Extremely Severe Pain. Because the categories are not quantifiable, the algebraic operations (+, −, x) make no sense. Thus, the average and standard deviation based on arbitrary numeric assignments have no meaning. Clearly, it makes no sense to average mere labels. This common mistake is attributed to the fact that while everyone knows how to calculate the average, not everyone understands the concept of average. Consider five pocket depth measurements: 6.5, 5.0, 3.5, 7.0, 9.5 (mm). The average pocket depth is

$$\text{Ave} = 6.5 + 5.0 + 3.5 + 7.0 + 9.5 = 6.3.$$

What is the meaning of the average value of 6.3? Suppose there is a stick that has a uniform mass density. Mark the left end of the stick with the smallest measurement 3.5 and the right end with the largest measurement 9.5. The intermediary values, 5.0, 6.5 and 7.0 are appropriately scaled and marked as shown in the following figure. Attach an equal weight to each marker. The point where the stick can be perfectly balanced on the edge of a knife represents the average.



Let’s apply the above physical interpretation of the average to the ordinal data (i.e., pain categories). We can easily mark the left end of the stick with “No Pain” and the right end with “Extremely Severe Pain.” We now need to find the precise point on the stick to put the markers for the intermediary categories; Mild Pain, Slight Pain and Severe Pain. Because the amount of the difference between the two categories—No Pain and Mild Pain—can’t be quantified naturally in a numeric value, no marker can be determined for Mild Pain. Similarly, no markers can be determined for Slight Pain and Severe Pain as we can’t quantify the difference between Mild Pain and Slight Pain, nor can we quantify the difference between Slight Pain and Severe Pain. As we can readily see, the balance point can’t be determined. In fact, the balance point, that is, the average, does not exist for ordinal data.



By similar argument, it can be shown that the standard deviation for ordinal data also cannot be quantified.

Misuse 3. Pearson Correlation. To evaluate a statistical relationship between two variables or two questions, investigators often mistakenly utilize the Pearson correlation coefficient. Suppose patients were asked to respond to the following two survey items.

Q1. I have anxiety associated with a dental treatment.

- Strongly disagree (SD)
- Disagree (D)
- Neutral (N)
- Agree (A)
- Strongly agree (SA)

Q2. How much pain did the treatment cause you?

- No pain
- Mild pain
- Slight pain
- Severe pain
- Extremely severe pain

To illustrate how the Pearson correlation coefficient for such ordinal data does not make any sense, consider three (3) labeling systems for the above five categories.

Category	Label A	Label B	Label C
SD / No pain	1	−5	2
D / Mild	2	−1	7
N / Slight	3	0	10
A / Severe	4	3.5	13
SA / Extremely	5	6	20

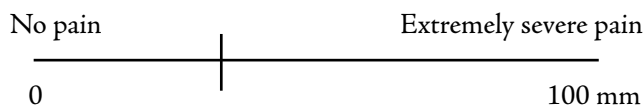
Two hundred eighty-three (283) patient responses are given in the table at the top of the next page. The results of computing a Pearson correlation under the three labeling systems are:

	Label A	Label B	Label C
Pearson correlation	0.407	0.284	0.362

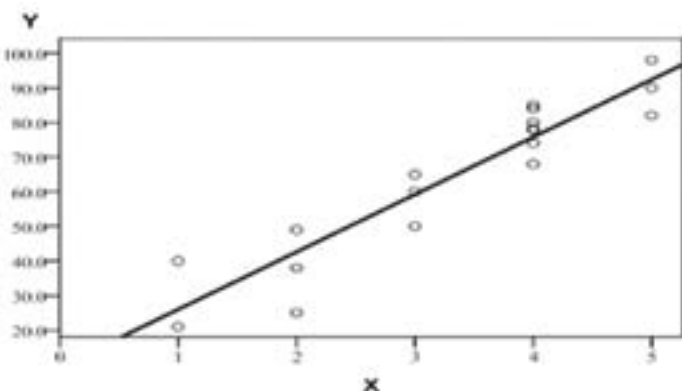
ID	Q1	Q2	Q1 (A)	Q1 (B)	Q1 (C)	Q2 (A)	Q2 (B)	Q2 (C)
1	A	Slight	4	3.5	13	3	0	10
2	A	Severe	4	3.5	13	4	3.5	13
3	D	Severe	2	-1	7	4	3.5	13
-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-
283	A	Ex. sev	4	3.5	13	5	6	20

The three different labeling systems give rise to three distinct values for Pearson correlation for the identical data. This statistical absurdity occurred because Pearson correlation was calculated from the label values that have absolutely no quantitative meaning. It might be worth stressing that (1, 2, 3, 4, 5), (-5, -2, 0, 3.5, 6) and (2, 7, 10, 13, 20) are nothing more than labels with no quantitative meaning. The response categories, such as SD, D, N, A, and SA, cannot be quantified. Pearson correlation for ordinal data should always be avoided.

Misuse 4. Regression Analysis. As an attempt to better quantify the pain variable, some investigators prefer to use the VAS (visual analog scale) system. In VAS the respondents are provided with a 100mm long straight line, “0” indicating no pain and “100” indicating extremely severe pain, as show below. The individual respondents put a mark on the line to express the level of their pain.



The investigators will later measure the distance between 0 and the mark to quantify the level of the subject’s pain. The VAS yields continuous measurements in natural numeric values. However, these are still inherently subjective, as the marks are placed on the line by the respondents expressing their subjective feeling of pain. Investigators may be tempted to perform a regression analysis to study the statistical relationship between DAS (ordinal data) and VAS (continuous data). Their intention is good in that such a regression model would enable them to predict VAS scores from the 5-point Likert scale.



As attractive as this regression function may look, it makes no statistical sense. As discussed, the values 1, 2, 3, 4 and 5 are arbitrary labels being used only to indicate the pain categories. In the above regression model, the investigators mistakenly assumed that the pain categories are quantified by the values 1, 2, 3, 4, and 5. Unfortunately, such regression models make little sense and are very misleading.

Misuse 5. Chi-square Contingency Table. Chi-square contingency tables are a popular and widely used method to study statistical relationships between two questions of interest on a survey questionnaire. We will once again utilize our two research survey items.

Q1. I have anxiety associated with dental treatment.

Q2. How much pain did the treatment cause you?

		Q1					
		SD	D	N	A	SA	Row Sum
Q2	No pain	3	3	0	3	0	9
	Mild	5	7	1	12	3	28
	Slight	16	11	3	4	2	36
	Severe	12	10	2	3	1	28
	Ext. severe	7	5	2	2	1	17
	Column Sum	43	36	8	24	7	N = 118

There are five rows and five columns in the above contingency table yielding 25 cells, and is thus referred to as a 5x5 contingency table. The name “chi-square” in chi-square contingency table comes from the test statistic for an analysis having an approximate chi-square probability distribution. There are some stringent technical requirements related to sample size that must be satisfied to ensure a reasonably good approximation. When the sample size is not large enough to meet the requirements, the 5x5 chi-square contingency table technique should not be used. The contingency table in this example shows that there were 118 respondents, of which 11 responded “disagree” on Q1 and “slight pain” on Q2. Some may think that the total sample size of 118 responses should be large enough, but there are too many cells with too few cell frequencies to meet the statistical requirement. Suppressing technical explanations, it would not be appropriate to perform a chi-square test for the above survey data.

Misuse 6. Two-Sample t Test and Paired t Test. Two of the most common misuses and abuses of statistical methods are the utilization of the two-sample t test and paired t test involving ordinal pain data. Numerous papers present the statistical results from a two-sample t test or a paired t test comparing ordinal pain data between two groups, or pairs of responses within the same subjects. For a valid application of these test methods the responses have to be normally distributed. It should be clear to anyone with a little background in statistics that the ordinal data are not normally distributed.

Misuse 7. One-way ANOVA. One-way analysis of variance (ANOVA) is a very useful technique and a frequently used statistical procedure to compare three or more treatment groups. Sadly, this is also the most egregiously misused statistical test in scientific research.

Suppose three treatments are being compared with respect to their effectiveness. The following two conditions must be satisfied before one-way ANOVA can be applied: (i) Three treatments are normally distributed, and (ii) their variances are equal. To our great dismay, the second condition is occasionally overlooked even at times by experienced statisticians, which can result in misleading conclusions. Applying one-way ANOVA to compare three groups—young, middle-aged, and old—in terms of their pain expressed in the 5-point Likert scale (ordinal data) would be a serious error in statistical analysis. Ordinal data are not normally distributed. Furthermore, we cannot determine if the variances are equal or not. The variance for ordinal data cannot be quantified as discussed.

Why the rampant misuse of statistics?

The concept of an average is perhaps the simplest in all of statistics. We saw an example (see Misuse 2) of how such a simple statistical concept is misused by some investigators. We know their misuse is not intentional. So how do we explain this prevalent misuse of statistics? Here are some thoughts:

1. No license is required to practice statistics. To practice dentistry, medicine, nursing, physical therapy, law, accounting, plumbing, etc., one must earn a license to practice his/her chosen profession. If I were to extract someone's teeth after taking a course in dentistry, but without a license, I could go to a jail. However statistics is not a licensed profession. There is no system in place to validate the competence of statisticians. Anyone can claim to be a statistician. Without proving that I ever took a formal course in statistics, I could "claim" statistical expertise and be allowed to practice statistics.
2. Detection and tolerance of statistical errors. It does not take much for the ordinary patient with little knowledge in dental and medical sciences to know a treatment they had received was not optimal. However, statistical mistakes can go unnoticed for a long time. The errors in statistics are subtle and technical. It may be difficult to detect them. The impact of the statistical errors is not easy to measure. Although damage caused by a statistical mistake can be catastrophic, it may not be easy to pin the responsibility on a statistical mistake. The "statistician" who performed the wrong analysis is rarely held accountable.
3. Substandard statistics instruction. Two instructional methods are utilized in teaching statistics: cookbook instruction and concept based instruction. Cookbook instruction makes life easy for both instructors and students. Students like it because it is not intimidating. Roughly speaking, in cookbook instruction statistical formulas are described by the instructor, and students are encouraged to practice using a statistical software package. Some statisticians call it mechanical or robotic instruction. Students learn to calculate the average and standard deviation, etc., but do not learn the underlying concepts. Many of these students are likely to misapply statistical tools.
On the other hand, the concept based method of instruction is desirable but requires much more time to instruct properly. From the students' perspective the study of statistics is more challenging when the instructor requires them to think critically by applying concept based methods.
4. Mis-teaching of statistics. One does not necessarily have to complete multiple statistics courses at the graduate level to be a qualified statistician. There may be competent statisticians with little formal education or graduate degrees in statistics. There are academic departments in which a faculty member who has taken three or four statistics courses while in graduate school is designated as the expert statistician in residence and is given the job of teaching statistics courses in the department. Such situations can contribute to the rampant misuse of statistics. A past president of the American Statistical Association posed a question, "Would you let someone who took four courses in medical school operate on your brain?" One of my former graduate school classmates said, "In retrospect, I was a brave and dangerous statistician at the end of my first year in graduate school."

Challenges of Teaching Statistics

It is far more common than you might think that even students with strong mathematical backgrounds struggle in statistics courses. Why? Almost all of the mathematical concepts can be explained by using concrete physical

Jay S. Kim, PhD, professor of biostatistics, retires

As he retires with mixed feelings at the end of the 2009 summer quarter, Jay S. Kim, PhD, professor of biostatistics and director of biostatistics core at the Center for Dental Research, believes "LLUSD . . . is in a uniquely strong position to attract many highly qualified statisticians. Only the luckiest statistician will have the opportunity to join the School and have the same privilege that I have enjoyed working . . . in this richly caring and loving environment."

Dr. Kim served as the School of Dentistry statistician, providing extensive consulting to faculty and students in their research projects as well as teaching the statistics courses for dental hygiene, dental, and advanced education program students. His dedicated mentoring has helped many students and faculty meet deadlines for table clinic presentations, theses defenses, and publication deadlines.

During his dozen years as a member of the School's faculty, Dr. Kim co-authored many scientific journal articles and was co-author, with LLUSD executive associate dean, Ronald Dailey, PhD, of the first comprehensive statistics

textbook, *Biostatistics for Oral Healthcare*, written with the dental health professional in mind.

For the past two years, Dr. Kim has been commuting between Loma Linda and South Korea, where he teaches at Chonnam National University in the city of Gwangju. It is understandable that he has decided to live full-time in Korea with his wife, who teaches there as a professor of music and well-known soprano soloist. But as long as he maintains his residence in Riverside, Dr. Kim intends to visit Southern California twice a year.

A long-time member of American Statistical Association and International Association for Dental Research, Dr. Kim has served as a reviewer or referee for various journals in math, statistics, reliability engineering, and biomedical sciences. His research collaborations have resulted in over 50 refereed journal papers. He has taught students from Loma Linda University's school of dentistry, school of medicine, school of public health, school of nursing, and graduate school. He has supervised and directed thesis



research as well as student projects. His specialty area is survival analysis and reliability theory.

Expressing his appreciation for "how each and every one of you has contributed . . . to my professional growth and enriched my life," Dr. Kim said it has been his "special privilege and honor to work with LLUSD faculty and teach the School's inspiring students."

examples, drawing pictures and graphs. You can teach every algebraic concept in math by using apples and oranges. You can illustrate and teach all the concepts in calculus by drawing pictures. Because students can easily relate to what they can see, touch, they would understand the concepts. Unlike mathematics, very few statistical concepts can be explained by drawing pictures. Graphs in statistics are used to present the data, not to teach the concepts. Statistical concepts are surprisingly far more abstract than mathematical concepts. It is not possible to draw a picture

of a random variable (see Watts). Mathematical models don't include randomness. Every statistical model does.

Two strikes against the statistics instructors. Dental, dental hygiene, medical and other biomedical students are required to take a statistics course. If the statistics course were elective, very few students would enroll. Some students have a mathematics anxiety. Some simply do not have adequate math preparation to be in a statistics class. Statisticians often talk about students in their classes who

couldn't multiply two numbers involving a decimal point. I have seen quite a few of those. I once had 35 percent (yes, 35%) of a class who could not understand that -1.645 is smaller than -0.562 . They didn't understand the ordering of the negative numbers. Under these circumstances, statistics instructors feel they have two strikes against them before they step into the batter's box.

Imagine that an endodontist is teaching a group of students who are forced into taking an endodontics course. The students have an anxiety associated with the course. Some have a poor background for the course and are having problems with his lectures because the course materials are too abstract for them. The endodontist will need to deal with a uniquely different student-instructor relationship.

Student complaints. It is the nature of many students, especially under the current cultural environment, to complain about the course and the instructor when they get frustrated, stressed, and are struggling in a course. It is not uncommon that some students who feel extreme anxiety exhibit disruptive behavior in class. In rare cases, as difficult as it is to believe, some try to sabotage the class and the instructor. It is generally known in academia that when it comes to student complaints there is no target like statistics courses and instructors. As we know, it is highly unusual to see good students complain. Statistics instructors can be just as frustrated as the students, as instructors try to motivate and interact with the frustrated and anxiety filled students.

Student complaints usually go to the department chair and/or the dean of the school. It is the statisticians' collective observation that most administrators handle the complaints admirably. But a few mishandle them badly, which can add undue pressure, stress, and, worst of all, demoralize the instructors. The manner in which the complaints are managed reflects the personalities of the administrators and their prior experience with statistics courses they may have taken as students. The worst case scenario is an administrator who over-reacts to student complaints and acts as their advocate. When this occurs, the opportunity for satisfactory statistics instruction is lost.

Those who are in great physical shape would joyfully meet the challenges of climbing a rugged mountain, while those in poor condition complain. Abstract and difficult statistical concepts are there, like a rugged mountain is there. No statistician could bulldoze down the mountain to make it painless for everyone, nor should he. At the recent American Statistical Association annual meeting, someone remarked, "When a basketball player complains, coaches, parents, and everyone else would tell him to stop complaining and practice harder. Why can't we tell the students when they complain about statistics courses to stop complaining and study harder?"

Statistics education is a joint venture between students and the instructor. There are roles for the instructors to play and there are roles the students need to play to achieve the best results.

Note. Part of this article was presented at the International Symposium, Seoul National University, November 2008, and at the LLUSD faculty developmental seminar, March 2009.

References

1. Kim, J. S. and Dailey, R. J. *Biostatistics for Oral Healthcare*. Wiley-Blackwell Publishing. 2007.
2. Dawson-Saunders, B. and Trapp, R. O. *Basic and Clinical Biostatistics*. Second edition. Appleton & Lange. 1994.
3. Altman, D. G. *Statistics and Ethics in Medical Research*, *British Medical Journal*, v. 281, pp.1182-1184, 1980.
4. Watts, D. G. Why is Introductory Statistics Difficult to Learn? *The American Statistician*. v. 45, pp. 290-291. 1991.

Misused Statistics in Dental Research Questions

Circle the letters of the correct answers.

1. Data that can be ranked but not quantified are known as
 - a. Nominal data
 - b. Ordinal data
 - c. Ratio data
 - d. Continuous data
2. Investigators should not report the average and SD when
 - a. The sample size is adequate
 - b. Study samples are taken from a normal population
 - c. All measurements are positive
 - d. The data are ordinal
3. When there are two variables that can't be quantified, investigators often mistakenly utilize
 - a. Simple linear regression analysis
 - b. Paired *t* test
 - c. Pearson correlation coefficient
 - d. All of the above
4. Visual analog scales yield continuous measurements in natural numeric values which enable investigators to use
 - a. Average
 - b. Standard deviation
 - c. A *t*-test if appropriate
 - d. Perform algebraic operations; +, -, x, ÷.
 - e. All of the above
5. Stringent technical requirements related to sample size are necessary to ensure a reasonably good approximation of a population for what statistical procedure?
 - a. *Z* test
 - b. Paired *t* test
 - c. Chi-square
 - d. Factor analysis
6. The following test methods require responses to be normally distributed.
 - a. Linear and Curvilinear Regression
 - b. Path Analysis
 - c. Factor Analysis
 - d. Chi-square Contingency Table
7. A statistical procedure comparing three or more variables (treatments) that requires the data to be normally distributed and the variances to be equal is
 - a. One way Analysis of Variance
 - b. Pearson Correlation Coefficient
 - c. Two-Sample *t* test
 - d. Paired *t* test
8. The instructional model preferred by most students when enrolled in a statistics course is
 - a. Cookbook instruction
 - b. Concept-based instruction
9. Health science students are required to take at least one statistics course in order to
 - a. Critically read professional literature
 - b. Correctly interpret research findings
 - c. Correctly implement research results in their practice
 - d. All of the above
10. When studying the relationship between ordinal data and continuous data, the investigator should use
 - a. Simple linear regression analysis
 - b. Pearson correlation coefficient
 - c. Paired *t* test
 - d. None of the above

Name _____ DDS/DH Lic.# _____

Date _____ Mailing address _____

Directions: 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

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

Expiration date _____ CVS number _____

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

National Association of Seventh-day Adventist Dentists (NASDAD)

Immediately prior to the American Dental Association session, more than 45 members of the National Association of Seventh-day Adventist Dentists (NASDAD) and their families met in Kona, Hawaii (September 24-27), for their 66th Annual Convention. President Mark Porco, SD'88, handed leadership to Kenneth W. Pierson, SD'71, who had the pleasure of attending with his son, Kenneth D. Pierson, SD'00, and family who are on a mission assignment in Saipan. Events included a golf tournament arranged by NASDAD's late lost friend (see obituaries) George "Andy" Blount, SD'77, the NASDAD Board of Directors meeting, continuing education provided by Christopher Blount, SD'02, a banquet, and plentiful spiritual activities.

Masai Dental Clinic

A major order of business at this year's NASDAD convention was planning support for its newest and biggest project since building the School of Dentistry—the Masai Dental Clinic situated on the world-famous Masai Mara

National Game Park in Kenya, East Africa.

Dr. Ray Damazo, known in Africa as the "Safari Dentist," built the clinic to provide dental care at no charge to the more than 30,000 Masai people who live within walking distance. In July 2010, Dr. Damazo will hand over operation of the Masai Dental Clinic to NASDAD, under an agreement where NASDAD will staff the clinic in such a way that it will provide service learning experiences for dental students.

A first-class facility, the Masai Dental Clinic complex includes three apartments available for visiting oral health providers, and a clinic with three well-equipped operatories, a sterilization room, and a laboratory/storage room.

Dentists who have at least a month available in their schedule to serve at the Masai Dental Clinic can contact NASDAD at 909-558-8187 or volunteer@masaidental.org. For those wishing to contribute financially, there is a wide range of opportunities, some of which fund activities in perpetuity. Information is available at the School of Dentistry Office of Development (909-558-4754) or sdgiving.llu.edu.



Standing left to right are: Katie Andreassen, Mark Porco, Anne Golden, Bill Heisler, Ray Damazo, Ralph Roberts, Sharon Boggs, Ken Pierson, Sr., Quint Nicola, Doyle Nick, Eldon Dickinson, Robert Stacey, Louis Guenin

“On the heights” with Peter Nelson

When Justice Sandra Day O'Connor's son, Brian Day O'Connor, withdrew from the 1990 ASPIRE (American South Pillar Expedition) team heading for Mt. Everest, Peter Nelson, SD'70, got a phone call. Would he replace the ninth member of the team?

Five years before, he had celebrated his fortieth birthday on Mt. McKinley, North America's tallest peak (20,320 feet). There he had met members of the ASPIRE team. Dr. Nelson's mountaineering had impressed the team members. Should he go to Mt. Everest, a mountain straddling the border between Nepal and Tibet? He consulted with his wife. “I won't say no,” Suzanne responded. “If you don't go, you'll be kicking yourself the rest of your life.” So he set his face toward Mt. Everest.

Dr. Nelson began a rigorous training program, similar to his preparation for his previous successful ascents on Lenina Peak (Pik Lenin), the Soviet Union's highest peak (23,405), and Aconcagua (22,834 feet) in Argentina. Biking, swimming, and running six to 10 miles almost daily supplemented his busy dental practice schedule, because, as he observed, in the dental business one faces minimal physical challenges.

What do you take on a climb to the top of the world? You take high quality tents (able to withstand 70 mph winds—“the kind you crawl into” to be placed at each of the camps). Then there are provisions: crampons, down clothing, a backpack, several down sleeping bags, rope and ice climbing hardware, and food—plenty of it. (Climbers can expect to eat 6,000 calories per day and drink a gallon or more of water per day—and lose 15 to 25 pounds from the exertions of the climb.) And, if you're a dentist, you pack a couple of dental instruments. Thus, at 17,000 feet (base camp), Dr.

Nelson found himself extracting a Sherpas' painful teeth.

At the end of the road, the ASPIRE team hired 15 Sherpa guides and 260 porters and yak drivers to transport eight tons of equipment 120 miles to base camp.

Climbing dangers are a major issue on Mt. Everest. When Dr. Nelson climbed Mt. McKinley, he learned that its death toll tallied at one death per 120 climbers. Now on Everest, he was told, “For every 3.2 people who reach the summit, one person dies.” It's probably the most dangerous sport there is.

“I almost wanted to get back on the plane and go home,” he admits. “When I

kissed my wife and family goodbye, I didn't know what I was getting into.” Later, lying in his tent, he would hear a rumble, a waterfall of ice. Every 20 minutes there was an avalanche. He was becoming aware of the hazards. You freeze. You fall. A chunk of ice falls on you. One of the most common ways to die on the

mountain is from pulmonary edema, a condition that occurs unpredictably in otherwise healthy mountaineers when adjusting to extreme altitude.

Dr. Nelson knew he was in fit condition. He was familiar with the mountaineer's mantras: Mountaineering is an imperfect art. Money can't buy you a summit. Monitor your body. Climb high, sleep low (climbing to a higher altitude in the day, returning at night to a lower camp), to adjust to lowering oxygen levels. Carry out everything you carry in. Dry mouth and throat, caused by breathing through the mouth, remind you to keep hydrated. Descend if you lose vision in either eye at high altitude.

Getting to the base camp at 17,000 feet had required a two-week, 100-mile climb.



The target highlighted late in the day



Pitching camp on a steep incline

Severe weather kept the climbers at Camp Two (21,500 feet) for almost six weeks. There ensued only four days of clear weather for reaching the summit. When the storm broke, it was time to launch the first team. Dr. Nelson heard the announcement: "We have selected you [and our two professional climbers] to be the first of our team to head for the summit." Both of his companions (Alex Lowe and Dan Culver) would die in subsequent climbs. But on October 8, 1990, the trio pursued well laid plans: Set out at 2 a.m. when the ice on the mountain is the most stable. Hopefully this would avoid the danger of avalanches. Get out of the dangerous area when the ice starts moving at 10 o'clock, turning the ascent route into a dangerous path.

That early morning Dr. Nelson had read these lines printed on his back pack, as he did every day on the climb:

The Sovereign Lord is my strength;
He makes my feet like the feet of a deer,
He enables me to go on the heights.—Habakkuk 3:19.

"I think the Lord knew these words would be handy," he comments. On the climb, Dr. Nelson recalls, "I was doing very well. I was feeling healthy even though my climbing companions were ten to fifteen years younger than I, also very fit fellows." Climbing 2,100 vertical feet, they arrived at Camp Three (23,600 feet) at 11:30 am.

Assessing their progress, Alex said, "Let's go on to Camp Four." Another 3,400 vertical feet would put them at 27,000 feet. Dr. Nelson admits that at this moment he was experiencing fatigue, altitude, and cold. He said, "Okay," but adds, "five thousand vertical feet in one day is very difficult."

Just before they arrived at Camp Four, the sun went behind the adjacent peak; the temperature fell 50 degrees in 10 minutes. Dr. Nelson reached for an additional parka



Dr. Nelson performs peak (17,000 foot) extraction on a Sherpa guide.

to brace against the cold. The exertion left him quite spent. Six hours and 2,000 feet from the summit, he started coughing. When the dry cough turned to blood, he knew his lungs were building up with fluid. In the thin air, fluid from his bloodstream had entered his lungs. He made his own diagnosis: pulmonary edema. He could drown in his own fluids in 20 to 40 minutes.

Staggering into Camp Four, he found supplemental oxygen to stabilize his condition. Finally on oxygen, Dr. Nelson, drifting in and out of reality, heard the crackling of the two-way radio. The doctor's words alerted him to his precarious state: "I'd give him one chance in four to make it through the night."

The only definitive treatment for his ailment: descent. Having survived the night, the next day alone (and this is prior to satellite phone era) he turned around and headed for Camp Three as his companions pursued their successful ascent to the summit, becoming numbers 298 and 299 to reach the top.

Nausea, fatigue, dizziness, torturous breathing accompanied him. Every step required monumental effort. Near Camp Three he met a Sherpa. There would be oxygen at the camp. There would be a two-way radio. It would connect Camp Three personnel with an expedition physician, who practiced medicine by radio from base camp.

Continuing his descent, Dr. Nelson stopped every hundred yards or so to rest and to breathe from the small oxygen tank he carried. It had to last until he made it to the next camp.

At Camp Two, late in the afternoon, team physicians halted Dr. Nelson's downward climb. "Instead of walking to base camp and perhaps dying on the way, we'll give you air pressure at base camp altitude," they explained. Putting Dr. Nelson in a Gamoff Bag—an airtight, pressurized device—they used a foot pump to increase the air pressure in the

Mt. Everest's death toll is one per every 3.2 climbers



Buddhist prayer flags billow at Base Camp.

bag so that it simulated air pressure available at a lower elevation.

Below on the route to the mountain, Suzanne Nelson was traveling toward base camp with 20 friends and family members. It had been eight weeks since she had heard from her husband. She was plying other teams with her question, "Have you seen anyone in the American group?"

"No," was the solemn reply, "but we know someone on that team is very sick."

Indeed, by this time Dr. Nelson had developed secondary pneumonia. After three days of convalescence, when his fever had abated, he set out on the downward trail. He knew Suzanne's itinerary and was anxious to see her. On the sixth day of his descent, he says simply, "I met her in the middle of nowhere." It was time to show his friends the base camp site. Continuing the descent with their friends for four days, the Nelsons arrived at the base camp, now totally evacuated. The ASPIRE team had put five members and two Sherpas on the top of the mountain. Dr. Nelson escorted his friends to a gorgeous view of Everest and a walk up the ice fall before starting the two-week descent.

Mt. Everest had made its impact on Dr. Nelson. "The trip gave me a greater appreciation for life," he says. "I think I learned a broader perspective of how to look at other people, how to understand working with other people and how to deal with difficult situations physically and emotionally. Some of the values gained: being trusting and trustworthy, the importance of having a good mental attitude, trusting in God and trusting your fellow men." And he holds the conviction that he has a very good guardian angel.

What is success on Everest? It's doing your best and getting back home.



Dr. Nelson stands just below the summit with Dan Culver of Vancouver, BC.

"He makes my feet like the feet of a deer."



Dr. Nelson sets out on foot for Mt. Everest.

Getting home is more important than getting to the top.

For Dr. Nelson the trip brought added satisfaction. After the climb, he applied his dental skills at a dental clinic near Katmandu. There he treated patients, providing a demonstration for the clinic's Nepalese dentist.

Is climbing behind him? In a sense, yes. "I've never done any high mountain climbs since Mt. Everest," Dr. Nelson says. Well, yes, he's been to Mt. Rainier with groups of students. But after Mt. Everest, he said, "I've got to get on with my life. I don't make climbing Mt. Everest the focal point in my life."

That life isn't divorced from adventure. Today, Dr. Nelson cites mission trips to 25 countries that he has visited multiple times: in the Far East, Africa, Central and South America. He can recall the tense atmosphere in Nigeria after the civil war, when his patient load came from a population of anti-Americans. (The United States had been on the "other" side in the civil war.) "In a city [Kano] of 700,000 Muslims," he recalls, "the white minority numbered very few." The patients offered variety, however. "In one room I'd be treating an ambassador. In another operatory was a person who had walked three days to get there."

Today Dr. Nelson's focal point, apart from significant involvement with family, church, and his dental practice in San Luis Obispo, is a dental clinic that he established 20 years ago and continues to support both personally and financially in Mexico, outside Guadalajara for the Hichol Indian people. "I get a lot of fulfillment out of that," says Dr. Nelson, who, obviously, seeks and finds many routes to fulfillment.

50th Alumni Student Convention

Homecoming Banquet

Date.....Thursday, February 4, 2010
 Hors D'oeuvres.....4:30 p.m.
 Dinner.....5:00 p.m. - 8:30 p.m.
 Where.....Wong Kerlee Conference Center
 Cost.....\$40 per person
Members of class of 1960 and 2010 - Complimentary!!!

The Alumni Association invites you to meet with your fellow alumni ,and help us celebrate several anniversaries including the 50th class reunion for the Class of 1960, 50 years of Alumni Student Conventions, the 50th anniversary for the Advanced Education Program in Orthodontics, and the 25th anniversary for the dental anesthesia program. So join us, all you orthodontic and anesthesia alumni! We're going to have historical videos on your programs, which promise to be both funny and nostalgic, with special recognition of influential members of your profession.



Dental Hygienists & Assistant Homecoming Luncheon

Date: Friday, February 5, 2010
 Time: 11:30 a.m.
 Cost: \$50 per person
 Where: Benedict Castle
 5445 Chicago Ave.
 Riverside, CA 92507

Food Options:

Penne Pasta: Penne Pasta sauteed in a creamy, sun-dried tomato pesto with a trio of wild mushrooms
Veggie Kabob: Veggie Kabob includes mushrooms, tomatos, sweet peppers lightly grilled over mesquite, served on a bed of lemon, mint & feta tabbouleh

Recognizing:

Classes of 1965, 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005

Women's Auxiliary Luncheon

Date.....Friday, February 5, 2010
 Time.....11:00 a.m. - 2:00 p.m.
 Where.....Hilton Hotel
 285 E. Hospitality Lane
 San Bernardino, CA
 Cost.....\$32 per person
 (make check payable to LLUSD Women's Auxiliary)

Deadline is January 26, 2010

For information call:

Joann Darby at (909) 478-1920

Please send your reservation and check before January 26, 2010 to:

Joann Darby
11547 Nelson St.
Loma Linda, CA 92354

George "Andy" Blount Golf Tournament

In honor of George "Andy" Blount, SD '77, who managed this tournament for many years. Entry fee includes green fees, golf car, continental breakfast, and raffle prizes. Registration must be completed by January 4, 2010.

Following a light continental breakfast, there will be a shotgun start to allow all participants to finish around the same time. This will be followed by a raffle of dental-related prizes. The raffle is for dentists and participants must be present to win. The field is limited to the first 60 golfers.

Date: Friday, February 5
Time: 8:00 a.m. Tee-Off
Registration: 7:30 a.m.
Fees: Alumni & Friends - \$55

The Yucaipa Valley Golf Club requires all golfers to wear appropriate golf attire consisting of collared shirts, no halter or bare-midriff style tops, and golf or flat-soled shoes.

Family Reception & School of Dentistry Tour

Date.....Friday, February 5, 2010
 Time.....2:30 p.m.
 Where.....School of Dentistry

Join the Dean and the administration in the School of Dentistry for light refreshments, an informational tour of the School of Dentistry, and a multimedia presentation chronicling our roots based in faith and hope.

Student Dedication Service

Date.....Friday, February 5, 2010
 Time.....5:00 p.m.
 Where.....Loma Linda University Church
 11125 Campus Street
 Loma Linda, CA 92354

Keynote Speaker:

Julius Nam, PhD
 Associate Professor of Religion at Loma Linda University
 School of Religion and a Commissioned Minister
 Seventh-day Adventist Church

February 4-7, 2010

50th Alumni Student Convention

Earl's Pearls and Gerald's Interdisciplinary Treatment Plans

Date: Thursday, February 4, 2010
Time: Registration - 8:30 a.m. Lecture - 9:00 a.m. - 4:00 p.m.
Tuition: \$150 DDS \$95 AUX/Staff
Location: Loma Linda University Centennial Complex
Credit: 6 hours of California continuing dental education credit
AGD code: 149

Gerald Nelson, DDS

Clinical Professor, Department of Orofacial Sciences
University of California, San Francisco

Earl Johnson, DDS

Private Practice
Mill Valley, California

Framework for Positive and Effective Interactions

Date: Friday, February 5, 2010
Time: Registration - 7:30 a.m., 8:00 a.m. - 11:00 a.m.*
OR 8:00 a.m. - 3:00 p.m.
Tuition: For the three-hour program: \$ 85 DDS \$55 AUX / Staff
For the six-hour program: \$150 DDS \$95 AUX / Staff
Location: Loma Linda University Centennial Complex
Credit: 3 OR 6 hours of California continuing dental education credit
AGD code: 555

Luke Iwata, DDS

Private Practice
Loma Linda, CA
Lecturer

David J. Weiss, Esq.

Defense Attorney
Los Angeles, CA
Lecturer

This course qualifies for a two-year, 5% discount on TDIC Professional & Business Liability policy effective on the next policy renewal along with continuing education units. Please call TDIC at 800.733.0634 with questions regarding the risk management discount.

30th Annual Dental Anesthesia Symposium

Date: Sunday, February 7, 2010
Time: Registration - 8:00 a.m. Lecture - 8:30 a.m. - 5:00 p.m.
Tuition: \$185 DDS \$125 AUX/Staff
Location: Wong Kerlee International Conference Center
Credit: 8 hours of California continuing dental education credit
AGD code: 149

Sigve K. Tonstad, PhD, MD

Assistant Professor, Medicine
School of Medicine, Loma Linda University

J. Lamont Murdoch, MD

Professor and Head, Medicine, Endocrinology Division
School of Medicine, Loma Linda University

Larry Trapp, DDS, MS

Director, Post Graduate Program, Dental Anesthesiology
Associate Professor, Dental Anesthesiology
School of Dentistry, Loma Linda University

John Leyman, DDS

Director, Koppel Special Care Dentistry Center
Associate Professor, Dental Anesthesiology
School of Dentistry, Loma Linda University

Edwin Krick, MD

Associate Professor, Medicine
School of Medicine, Loma Linda University

Barry Krall, DDS

Director, Pre-doctoral Program, Dental Anesthesiology
Assistant Professor, Dental Anesthesiology
School of Dentistry, Loma Linda University

Temporomandibular Disorders: Sense and Nonsense

Date: Sunday, February 7, 2010
Time: Registration - 8:30 a.m. Lecture - 9:00 a.m. - 4:30 p.m.
Tuition: \$185 DDS \$125 AUX/Staff
Location: Loma Linda University Centennial Complex
Credit: 8 hours of California continuing dental education credit
AGD code: 182

"Chronic Pain Differential"

Ali Makki, DMD

Associate Professor, Oral Diagnosis, Radiology and Pathology
School of Dentistry, Loma Linda University

"Imaging Methods"

Joseph Caruso, DDS, MS, MPH

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

"Demystifying TMD"

Charles McNeill, DDS

Director, Center for Orofacial Pain
School of Dentistry, University of California
San Francisco, California

"Orthodontics and TMD"

Duane Grummons, DDS, MSD

Assistant Clinical Professor, Orthodontics
School of Dentistry, Loma Linda University

For more information on the 44 scientific sessions, class reunions, and commercial exhibitors, please visit www.llu.edu and navigate to the School of Dentistry Alumni Association's convention pages, or call (909) 558-4399

February 4-7, 2010

Dr. Roggenkamp's aircraft becomes instructor

Appreciation for higher education and foreign mission service recently led LLUSD associate professor Clyde Roggenkamp SD'70, MSD, MPH, to contribute his *Cessna Centurion II* to the aviation program at Andrews University. There it will provide training and instruction opportunities for prospective traditional and bush mission pilots.

After an initial six years in private practice, Dr. Roggenkamp recognized the importance of advanced training in a specialty area; but lingering educational and practice startup debt made that goal seem a distant prospect—unless he could be recruited into a branch of the U.S. military services. But with his age (he was 34 and the ceiling for applications was 35), and a number of Air Force induction requirements, the calendar was closing in. Nevertheless, with the assistance of a United States Congressman (chair of the U.S. Armed Forces Committee) from Massachusetts, where he practiced at the time, and a higher-level administrative



Clyde Roggenkamp poses with his Centurion II

provision to bypass prevailing regulations, he was inducted into the Air Force with the rank of major in 1976.

Dr. Roggenkamp's initial attempt to acquire Air Force graduate education sponsorship was in periodontics. Unfortunately that program had been experiencing administrative challenges so he re-applied to operative dentistry. With time, patience and special consideration from the graduate training selection committee, he was granted full sponsorship for the two-year civilian MSD program at Indiana University. Melvin Lund, DDS, MS, who had been his restorative dentistry professor at LLUSD, was chair of Indiana's graduate operative dentistry department. Charles Goodacre, DDS, MSD, dean, Loma Linda University School of Dentistry, was the prosthodontics chair and Yiming Li, DDS, PhD, MSD, director of the Center for Dental Research, was a doctoral candidate in dental materials. Others formerly at Indiana University and now serving as LLUSD faculty include Patrick Naylor, DDS, MPH, MS, associate dean for advanced dental education, and José Torres, DDS, assistant professor, Restorative Dentistry. "What providence that we all ended up here on the staff at LLUSD," Dr. Roggenkamp muses.

Besides Indiana, Dr. Roggenkamp's Air Force service found him stationed at various times in Omaha, Nebraska; Okinawa, Japan; Washington, DC; Goldsboro, North Carolina; Lakenheath, England; and San Antonio, Texas. But it was his assignment in 1988 to Seymour Johnson Air Force Base (home of the 4th Fighter Wing) in North Carolina that spurred Dr. Roggenkamp to take flying lessons—where, he says, it was partly the closeness to Kitty Hawk (birthplace of human flight) that inspired him to look in the Yellow Pages to find his first flight instructor. Firmly committed to flying, Dr. Roggenkamp thought that he might as well take the first solo in his own plane, which led to the purchase of a Cessna 172 *Skyhawk*. In two years he graduated to a Cessna 177 *Cardinal* that he flew for another two years before acquiring the Cessna 210 (*Centurion*) that he flew for 16 years.

One of the more harrowing journeys that Dr. Roggenkamp made in the *Centurion* was a ferrying flight across the North Atlantic to Lakenheath AB, England (1994) and back (1996). The return journey was chronicled in a Norwegian publication, *Vi Menn*, to celebrate the tenth trans-Atlantic ferrying trip of Dr. Roggenkamp's co-pilot, J. T. Børge, in a small plane.



Dr. Roggenkamp retired from the Air Force in 1997 as a lieutenant colonel, and has continued to fly, albeit much less than he would wish. The *Centurion* is an excellent aircraft, worth more for its speed, payload, and reliability than for its mere Blue Book value; and it was exciting to consider that it might serve more effectively in an educational and mission-oriented environment. Through a personal friend at Gospel Outreach, Dr. Roggenkamp learned that there was a real need at his undergraduate alma mater's (Andrews University '63) mission pilot training program for a high performance single-engine plane of this type.

In June, Dr. Roggenkamp piloted the *Centurion* from Redlands, California, half way across the country to Berrien Springs, Michigan, where the Andrews University administration and Department of Aeronautics representatives accepted his Cessna 210 as a significant addition to their flight training certification fleet. At that nationally recognized training center the plane potentially provides re-certification capability for many pilots, including those from Mission Aviation Fellowship, Adventist Worldwide Aviation, and Gospel Outreach.

Whether or not Dr. Roggenkamp may yet have opportunity for mission service himself, there is the assurance that his plane will continue to provide instruction for pilots to utilize anywhere that flying is needed to spread the Good News.

Dr. Roggenkamp and his Centurian buzz the Icelandic coast



Posing with the Cessna 210 Centurian II (L-R): Dina Simmons, Department of Aeronautics; Lawrence Schalk, vice president for financial administration; Niels-Erik Andreasen, AU president; Clyde Roggenkamp; Verlyn R. Benson, DIT, dean, College of Technology; James H. Doran, assistant professor of Aeronautical Technology, chief flight instructor; David A. Faehner, PhD, vice president for university advancement



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)

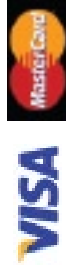
• Containers and ice pack for DUWL testing are provided.

• 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: Sterilization 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

Brodeur's bridgework

Dental students have an easy informality with their mentors. Nevertheless, David Brodeur, SD'71, MPA, assistant professor, Department of Restorative Dentistry, was puzzled when a student outside his group practice assignment, said, "I need you to come to Chair 119."

Dr. Brodeur countered, "What did I do wrong?"

"I have someone I want you to talk to."

At chair 119, the student announced, "You must know this lady."

"Well, she looks familiar," Dr. Brodeur parlayed.

The student explained, "When I examined her, I commented, 'That's a nice bridge. Where did you have it done? 'Right here,' she said, '38 years ago, done by a young student named Dr. Brodeur.'"

"I know that man," said Ron Young, DMD, the student's group mentor.

The bridge, from canine to canine, was a porcelain-fused-to-metal bridge, a new procedure at the time. "The margins still look good, the color is



good," the student noted with surprise. Students expect to replace most 38-year-old dental work.

"That was one of the most fun things that have happened to me in the clinic," says Dr. Brodeur. He admits that teaching is something he'd wanted to do his whole life. After 25 years of dental practice in Calgary, British Columbia, health problems limited his pursuit

of full-time dentistry, and he happily joined the Loma Linda University dental faculty, first as administrator of the recently established Social Action Community Health System clinic on the Norton Airbase grounds, and then in 1998 joining the restorative dentistry department.

He calls himself a "people" person. In addition to teaching and applying his technical skills, he troubleshoots in the clinic. "When I find patients unhappy, it's usually because they need more information; I'm extending the discussion between student and patient."

Dr. Brodeur speaks for himself and his teaching colleagues, "We are not here to get rich. We love what we do. We can give students the experience that it takes to run a practice. We have learned from life." And besides, in the clinic there's the happy evidence of his bridgework that has lasted for 38 years.

LLUSD has a new Diplomat

Nikola Angelov, DDS, MS, PhD, associate professor and director, Pre-doctoral Periodontics Clinic, Department of Periodontics, recently passed the final exam of the American Board of Periodontology and was granted the title: Diplomat of the American Board of Periodontology.

Dr. Angelov earned his DDS and PhD degrees at University "St. Cyril and Methodius" Faculty of Dentistry Skopje, Macedonia, before completing a postdoctoral fellowship in Oral Infection and Immunity Branch at the National Institute of Dental and Craniofacial Research, National Institutes of Health, in 2004. Dr. Angelov joined the LLUSD Department of Periodontics as assistant professor that same year.



William Heisler, DDS, Rotarian

By TREVA WEBSTER, MBA, RN

William Heisler, SD'59, professor, Department of Restorative Dentistry, has been a dentist since he graduated from LLUSD in 1959, and a Rotarian since 1991. Over the years Dr. Heisler has found a profoundly positive purpose for mixing the two, and certain people in Russia's Far East are very grateful that he has.

Fresh out of dental school, Dr. Heisler opened a private practice in Springfield, Oregon, before spending four years in the U.S. Army Dental Corps, where he served as the prosthetics officer in Mainz, Germany, until 1966, when he departed the service with a rank of captain.

Dr. Heisler established a private practice in Novato, California, about 30 miles north of San Francisco—a practice he maintained until 1980, when he was recruited to the School of Dentistry faculty. At the School Dr. Heisler has taught and conducted research in both the Department of Restorative Dentistry and the International Dentist Program, and served (between 1991 and 1999) as associate dean for clinic administration.

Between those professional and pedagogical activities Dr. Heisler began in 1998 to sandwich service-oriented activities with the San Bernardino-Loma Linda Crossroads Rotary Club (District 5330). In the spring of 1998 a presentation was made to the annual District assembly about the severe need for dental

services among the children of Russia's Far East that resulted in a long and fulfilling relationship between Dr. Heisler's Rotary Club, other partner Rotary clubs, Rotary International, the Russian Far East, Armenia, Africa

children, as well as to present dental lectures to students and dentists at Magadan Regional Medical College.

Nearly three years later, September 2001, in the company of a Russian-speaking dentist, Dr. Heisler spent a fortnight in Russia installing dental operating units to serve the needs of Russian children. On another trip to Palatka in June of 2003, Dr. Heisler installed in that city's dental clinic its very first dental x-ray unit—a state-of-the-art digital model that requires no film or dark room.

Changing direction, Dr. Heisler's Rotary chapter acted as the host club for a \$25,000 reverse grant from India's Bangalore East Rotary Club. The grant purchased EKG and ultrasound machines for the Loma Linda University Social Action Health Clinic in San Bernardino.

In his most recent association with Rotary International's Matching Grant Program, Dr. Heisler raised funds to provide cataract surgery and follow-up care to 500 indigent adults in Punganur, India.

Dr. Heisler's efforts have not gone unappreciated. In 2003 he received The Rotary International Service Above Self Award—Rotary International's most prestigious award. And on July 19, 2009, for all of his "work [that] will make a big difference in the world," Dr. Heisler was honored with District 5330's "Rotarian of the Decade" award, the only such award ever bestowed.



and India that included four trips by Dr. Heisler to Magadan and Palatka.

In 1998 Dr. Heisler traveled to Russia to gather information from Rotarians and dentists about the oral healthcare needs, especially of Russian children. A year later he led a group of dentists, a health educator, and two Russian speaking Rotarians on a two-week trip to Magadan and Palatka to provide acutely needed dentistry for approximately 150

LLUSD Society of Scholars

During LLUSD's 50th anniversary commemorative celebration in 2003, 30 charter members were named to the Society of Scholars. Faculty qualifying for Society membership have at least 50 publications in refereed dental journals. In tangible recognition of their professional publishing accomplishments, current faculty who are members of the Society of Scholars received medallions at the Faculty Advance Seminar on September 18, 2009—including Lloyd Baum, DDS, emeritus

professor, International Dentist Program, whose medallion was received on his behalf by his son and daughter, Bradley Baum, MD and Marti Baum, MD.

In addition, two newly inducted Society members (Joni Stephens, EdS, MS, RDH, professor, dental hygiene, and Joseph Kan, DDS, MS, implant specialist, Department of Restorative Dentistry) received their medallions.

Current LLUSD faculty Society of Scholars members include:

- Leif Bakland, DDS, professor (and immediate past chair), Department of Endodontics
- Lloyd Baum, DDS, emeritus professor, International Dentist Program
- Gary Bogle, DDS, MS, associate professor, Department of Periodontics
- Charles Goodacre, DDS, MSD, dean
- Alan Herford, DDS, MD, OMS, associate professor and chair, Department of Oral and Maxillofacial Surgery
- Joseph Kan, DDS, MS, professor, Department of Restorative Dentistry
- Sean S. Lee, DDS, associate professor, Department of Restorative Dentistry, and director, Clinical Research, Center for Dental Research
- Yiming Li, DDS, MSD, PhD, professor and director, Center for Dental Research
- Jaime Lozada, DDS, professor and director, Advanced Education Program in Implant Dentistry
- Carlos Munoz, DDS, MSD, professor, Department of Restorative Dentistry
- W. Patrick Naylor, DDS, MPH, MS, associate dean, Advanced Education
- Joni Stephens, EdS, MS, RDH, professor, Department of Dental Hygiene
- Mahmoud Torabinejad, DMD, MSD, PhD, professor, Department of Endodontics and director, Advanced Education Program in Endodontics
- Wu Zhang, MD, associate professor, Center for Dental Research and director, Research Service Core



Society of Scholars display medallions awarded at the Faculty Advance Seminar. Pictured front, left to right: Drs. Wu Zhang, Mahmoud Torabinejad, Bradley Baum, Marti Baum, Leif Bakland, and Joseph Kan; back, left to right: Joni Stephens and Drs. Alan Herford, Jaime Lozada, Charles Goodacre, Yiming Li, W. Patrick Naylor, and Sean Lee.

Schubert Sopian, “mission trip addict”

The 30-year-old patient has six teeth slated for extraction. To be exact, decay has rendered non-existent the crowns on his teeth. Schubert Sopian, SD'97, notes that in this humid outdoor Mindanao mission clinic buzzing with mosquitoes, extracting all six roots may take more than an hour using traditional extraction procedures. He is asking himself, “Couldn’t there be a faster way to remove these roots?”

He will try out his answer to this question on his next mission trip, which takes him to a makeshift dental clinic in a Philippine church. This time Dr. Sopian has brought with him the fruits of myriad late night hours at his kitchen table in Texas, working with diagrams and custom machined parts to devise a new system for root extraction. The system, in final form, will contain a pilot drill, a #557 surgical bur, six extraction screws in a custom bur block (with a screw straightening feature), two custom drivers for placing extraction screws, a cushioned tray that protects the extraction site and provides leverage support for a pry bar, and the manual pry bar by which the dentist applies leverage extraction force. The pry bar lifts out the screw and extracts the root with it, almost like pulling a nail from a board. The system is contained in a custom-fitted autoclavable cassette.

Now meeting his first patient in this primitive setting, Dr. Sopian is ready to test the first prototype of the system he has designed to perform root extractions much more quickly. If the system works as planned, the Sopian Root Remover System



Dr. Sopian performs plein air dentistry.

finds the pry bar’s design user friendly; he intuitively exerts the leverage push to complete extraction. The procedure has taken no more than two minutes, and it leaves the site clean and undamaged.

Dr. Sopian enlists an assistant, a fellow church member and Texas farmer.



Dr. Sopian looks at home away from home.

will also minimize destruction of bone and soft tissue, while maintaining alveolar socket integrity, and reducing the risk of post-surgical infection.

Dr. Sopian enlists an assistant, a fellow church member and Texas farmer who has experience extracting teeth from the cattle and horses on his ranch. Dr. Sopian teaches his farmer friend to cut the periodontal ligaments and luxate roots. Now with Dr. Sopian’s oversight, the farmer

Working in sync, the two men turn to their next extraction. Dr. Sopian’s open-invitation international mission trip has traversed new territory in a remote land. The root removal is both efficient and efficacious.

Dr. Sopian admits he was surprised to find himself in dentistry. A toothache prompted his entrance to LLUSD. At the school’s student dental clinic to get relief, he met Roger Gilbert (SD’91), then a dental student. Chatting while he examined the tooth, Dr. Gilbert said, “You don’t want to be a medical technologist. Let me take you upstairs and get your application to dentistry started.”

A surprised Dr. Sopian was in dental school six months later. It was a great fit. As he says, “I was born with mechanical ability. At 16, my first car was a foreign junker, but parts were often not available, and I found I could make the parts I needed.” Sitting in class one day, he listened to a description of problems that arise in implant

cases—bacterial microleakage, broken screws, bone loss, and lack of shock absorbing capability comparable to that provided by the periodontal ligament system. Dr. Sopian recalls, “I went to work on an idea for providing shock absorbency in implants, and using portals within the implant to release growth factors for faster osseointegration.” He presented his idea to some faculty—Drs. Goodacre, Boyne, Lozada, and Kan. After further development, this idea grew into a table clinic presentation that took first prize at the 2002 International Congress of Oral Implantologists. That implant design eventually became one of Dr. Sopian’s first patents. Today he has several.

He talks with enthusiasm about the birth of the root removal system he has developed. “Root extractions were so cumbersome. I tried to make the System simple and versatile so it will reach anywhere in the mouth, and be cost effective. I felt it was important to make the screws reusable.”

Interspersed with his inventions and practice are Dr. Sopian’s mission trips. An admitted “mission trip addict,” he has found dentistry a great vehicle for his interests. In dental school, he went on every mission trip that he could. “In March, 2009,” he mentions, “we treated 600 patients in Costa Rica.” A few months later, he adds, he would be in the



Philippines for three weeks. “Yes, it bothers me when we are in a place where we do so many extractions,” he says. “We take out teeth and leave the patients. I wish that we could provide implants or dentures for mission patients who require extractions, just as we do for patients in the United States. But people do adapt and manage to survive. We want to do the best good and least harm to the patient. It is better to pull out the tooth so that the infection will not spread to surrounding teeth and other parts of their body.”

In between trips, Dr. Sopian checks in at home to pursue his Fort Worth, Texas, general and implant dentistry practice, while working on new projects to improve dental care. He continues to credit the challenge of a suffering patient and a mosquito-ridden dental mission clinic on Mindanao Island with providing the impetus to develop the instruments that now bear his name.

Note: Dr. Sopian and the Sopian Root Remover System will be at an exhibition table during LLUSD’s 50th anniversary alumni student reunion. Dr. Sopian volunteers as an adjunct clinical professor for Dental Education Services at LLUSD, where he helps organize dental mission trips that are open to students and practicing dentists. Dr. Sopian may be contacted through www.sopianrd.com.

LLUSD faculty participate in historic meeting

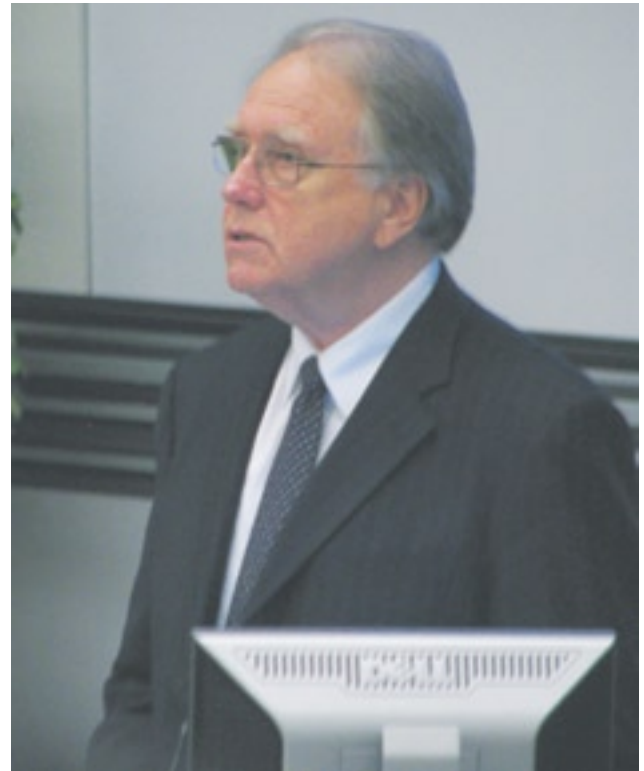
By DOYLE NICK, DDS

A historic meeting was held in Geneva, Switzerland, the home of the World Health Organization (WHO) during the week of July 6–11, 2009.

Recently WHO personnel became aware that about 40 percent of the medical care in developing countries is provided by faith-based organizations; and because of this realization, WHO has begun to make an effort to understand, cooperate, and coordinate activities with faith-based organizations. The General Conference Department of Medical Ministries and the WHO held joint meetings to lay the groundwork for this understanding and cooperation.

About 700 medically-affiliated church employees, along with WHO employees, held joint meetings, including a number of plenary sessions and workshops. One workshop series organized by the Office of International Affairs featured dental subjects. During the 14 hours of continuing education presentations, a variety of lecturers from around the world, including several from the Loma Linda University School of Dentistry, reviewed a broad spectrum of topics: oral infection, cariology, minimally invasive dentistry, systemic disease and its effect on oral health, endodontics, challenging African dental disease, HIV- AIDS, etc. LLUSD lecturers included Stanton S. Appleton, SD'72, MPH, MSD, MAGD; Robert Handysides, SD'01; Quintes Nicola, SD'69; Brian B. Novy, SD'06; and Thomas Rogers, SD'83, MPH, MA. Attendees were, likewise, from many locations around the world.

Enthusiasm for the meetings was very high, with participants enjoying the global association and the exchange of ideas. The information gained, and the cooperative partnerships formed, will facilitate the healing ministry of the church in its effort to care for God's children around the world.



GC President Jan Paulson addresses the conference.



Unimail building, WHO meeting venue

ESTHETIC DENTISTRY STUDY

CLUB QUESTIONNAIRE:

The Division of Continuing Dental Education is planning an interdisciplinary esthetic dentistry study club, and wants your input. The lecture and/or laboratory topics will include:

The Fundamentals of Esthetics

Barriers to High End Esthetics

Legal Considerations

Dental Photography

Periodontal Considerations and Treatment Planning

Dental Materials

Color and Shade Selection

Prosthodontic All Ceramic Crown Esthetics

Communication with Laboratory Technicians

Occlusion Rehabilitation

Cleft Lip and Palate Repairs

Surgical Esthetics

Composite Resins and Veneers

Tooth Whitening

Complex Prosthodontic and Treatment Planning

Implant Esthetics

Esthetics with Metal Ceramic Restorations

Esthetic Complete Dentures and RPD Prosthodontics

Orthodontic Esthetics

Esthetic Posts for Endodontically Treated Teeth

Live surgeries and demonstrations will be shown, and participants will fabricate three different crowns. Literature review and case presentations will also be part of the series.

We are interested in your input on the following

This eighteen-month series should be:

One study club Two nine-month study clubs (beginning and intermediate)

The study club size should be: Limited to 50 Unlimited

The cost of \$11,000 for the eighteen-month series would be manageable: Yes No

An optional trip to the Schaerer Study Club in Geneva, Switzerland should be planned for the participants: Yes No

Name _____

Please return this questionnaire to:

Continuing Dental Education

11245 Anderson Street, Suite 120

Loma Linda University

Loma Linda, CA 92354

Or FAX to: 909-558-4858

Research retreat at Lake Arrowhead

The Loma Linda University School of Dentistry held a research retreat at the Lake Arrowhead Resort on August 16, 2009, with 19 attendees, including program directors for Advanced Dental Education and members of the Research Committee and temporary research taskforce. The retreat was hosted by Yiming Li, DDS MSD, PhD, professor and director, Center for Dental Research; Neal Johnson, SD'09, PhD, Research Committee chair



and assistant professor, Oral Diagnosis, Radiology, and Pathology; and Jung Wei (Anna) Chen, DDS, MS, PhD, Research Taskforce chair, associate professor and director, Advanced Education Program in Pediatric Dentistry.

Sandra Hilliker, PhD, MBA, senior proposal advisor, LLU School of Medicine, Basic Sciences,



attended as a guest speaker and gave a presentation on National Institutes of Health funding.

During the lunch break, Dean Charles Goodacre, SD'71, MSD, presented a review of the 3D teaching tool prototype that is in development under his direction at LLUSD to facilitate the learning of head and neck anatomy.

Visiting students report on chairside observations

In LLUSD's dental clinic, Giuliana Oddo and Moritz Forsch looked very much like the dental students. In fact, they are dental students—in the Universitat Mainz, Germany.

Moritz said he is at LLUSD's D3 level; Guiliana rated herself at the D2 level. The pair are in their third and

relationships" between faculty and students. The two reported that they found only minor differences in curriculum; distinctiveness arose in the way they have experienced a rigid, enforced respect for faculty in their home environment.

Mentoring the visitors, Dr. Oliver Hoffmann also enhanced their weekends. On this, their first time in California, the



L-R: Maria Greenhouse, Giuliana Oddo, Moritz Forsch, and Dr. Richard Grabowski

fourth years of a five-year dental school program in their home country.

"We received a 'nice, wonderful' letter from Dean [Charles] Goodacre," Giuliana said of the response to inquiries sent to several U.S. dental schools requesting opportunity to observe dental procedures. That letter convinced them that LLUSD should be the school they would visit. During their four weeks on campus, they observed a variety of procedures.

"I felt really welcome," Guiliana said of her arrival at the School, adding, "It might have to do a bit with the Christian environment." She noted that the dental school faculty and students "put their values in a different way—the way they treat patients, and the way the faculty and students relate." Moritz and Guiliana liked the communication and "warmer

names of sites visited roll off their tongues: Getty Museum, Joshua Tree National Park, Palm Springs, Santa Monica, a silent movie theater, the Melrose area.

Exhibiting an excellent facility in English when introduced by Dr. Hoffmann, another perk of their visit became evident when they prepared to exit the clinic. Dr. Hoffmann switched into fluent German language, indentifying him as the perfect host for the students. Now a LLUSD faculty member for nine years, he speaks German like the native that he is, a graduate of dentistry in Wurszburg, Germany.

Would Guiliana and Moritz consider returning to the United States, perhaps for residency education? "Yes," they said readily, and, more specifically, they would be happy to return to Loma Linda again.

Dentists visit from Macedonia

Five days before they left Loma Linda University School of Dentistry, Drs. Sasko Bogdanovski and Andrejco Grncarovski broke into broad smiles at the thought of rejoining their families in Macedonia. They had just spent six intensive weeks at the School of Dentistry in a Macedonian-style sabbatical (read “self-financed”). Their return to the dental faculty at University St. Cyril and Methodius in Skopje, Macedonia, would reunite them with their wives and children (son, 13, daughter, 5, for Dr. Bogdanovski; daughter, 13, and son, 7, for Dr. Grncarovski).

It was a very busy six weeks for the two visiting professors, hosted by LLUSD’s Nikola Angelov, their colleague through high school and dental school days in Macedonia. An outgrowth of a contract for cooperation between LLUSD and University St. Cyril in Methodius, the program provided for shadowing faculty, observation of surgeries, and participation in residents’ seminars, where the residents present their research.

Preparation for dentistry in Macedonia comes in “medical high school.” Dr. Angelov and his two classmates were qualified dental technicians when they completed high school and became dental school classmates. As dentists, all have achieved impressive credentials. Dr. Angelov pursued research at NIH, enroute to a doctorate in periodontics; Dr. Bogdanovski is a prosthodontist with a doctorate focusing on TMJ and MRI; Dr. Grncarovski is completing a doctorate in oral surgery.

Notably capable in English (Macedonians study foreign language fourth grade through high school), the visitors cite impressions of their host country. “There is nothing like Disneyland at home,” they observe. “Big stores,” they add, “broad streets, and ease of finding parking places.” Told that Loma Linda residents complain about parking availability, they explain, “In our crowded country of

2 million people, if you want a parking spot, you buy a parked car—and never move it.”

Now in his fifth year on LLUSD’s faculty, Dr. Angelov used his California know-how to host his dental school classmates at his home with his wife, Dr. Dragana Angelova, who recently completed LLUSD’s International

Dentist Program. On weekends, the Macedonians saw such sites as San Francisco’s Alcatraz, Universal Studios, Palm Springs, Santa Monica, and Lake Arrowhead.

Back home, in addition to their lectures in oral surgery and prosthodontics, Drs. Bogdanovski and Grncarovski are lecturing on “how LLUSD works.” They explain, “We learned a lot about ways to improve teaching skills.” They admired the clinic’s group

practice concept, where students can do comprehensive patient treatments, unlike the current plan in Macedonia, where the patient is shifted from department to department for needed procedures.

Unlike a plan at LLUSD that allows faculty participation in private practice, no Macedonian dental faculty is permitted to practice outside the school. Yes, a private practice would yield a more lucrative income. But like their faculty counterparts around the world, Drs. Bogdanovsky and Grncarovski laud non-monetary rewards. “We like contact with the students, access to continuing education, and opportunity to pursue stimulating research,” they say.

They anticipate more interaction with LLUSD faculty as the Macedonian connection with their university continues.



L-R: Drs. Nikola Angelov, Dragana Angelova, Sasko Bogdanovski, Andrejco Grncarovski

California governor appoints LLUSD faculty and alumnus

Michelle Hurlbutt, LLUSD associate professor, Department of Dental Hygiene since 1999, is one of nine charter members appointed October 21, 2009, by Governor Arnold Schwarzenegger to the newly formed Dental Hygiene Committee of California (DHCC), the first of its kind in the United States. This committee requires one member to be a dental hygiene educator.

With Ms. Hurlbutt's appointment, the LLUSD dental hygiene program is the only one of the 26 in the state with a faculty member on the new committee. Also appointed to the committee was Miriam (Mimi Skala) DeLaRoi, DH'03, RDHAP. So LLUSD is well represented on the DHCC

At its first meeting scheduled for December 10, the DHCC was charged with full authority over licensure, practice and enforcement of California dental hygienists. Charged with protecting the California consumer, each of the Governor's appointees is empowered to serve through December 31, 2011.



Miriam (Skala) DeLaRoi



Carol White, assistant to the executive associate dean, notarizes Ms. Hurlbutt's committee appointment.

George “Andy” Blount

On site as attending faculty in the School of Dentistry until a short time ago, Dr. Blount reflected on his teaching experience. “No, it doesn’t match private practice finances,” he said in an offhand manner. Then more seriously he added, “But I’m happy doing this. Doesn’t that count for something?”



Dr. Andy Blount

Students in the School’s clinic lost a devoted professional-plus-father figure when Dr. Blount died on October 2, 2009. After intense hours in the clinic, they would join Dr. Blount and his wife Marcia at the couple’s home in Highland, California. There would be food and conversation, often accompanied by vespers. Or sometimes Dr. Blount would col-

lect students to attend a sports event as a break.

Born in Paradise Valley Hospital, San Diego, on December 3, 1949, Dr. Blount attended LLU’s La Sierra campus. Upon graduation in 1972, he was prepared for physical education teaching. Five years later, he began pursuit of a dental degree, and subsequently opened a 28-year solo practice in Atascadero, California.

Becoming an assistant professor in restorative dentistry in 2003 brought his two professional passions together: dentistry and teaching. He soon became a student favorite. He loved patient interaction, and regularly reminded students that they were treating the patient, not the tooth.

Dr. Blount had many enthusiasms: spending time with his family, traveling, golfing, tending his fruit trees, working out at the gym, and playing with his grandchildren and two dogs.

A strong faith in God and a loving family sustained Dr. Blount during his final illness. Survivors include his wife and high school sweetheart, Marcia, of Highland, California, and three sons—Christopher, SD’02 (wife Nicolette), of Richmond Hill, Georgia; Cameron (wife Silia) of Folsom, California; Cassidy of Highland California—and four grandchildren.

The family suggests that gifts in Dr. Blount’s memory be made to LLUSD’s scholarship endowment fund or to the dental academic campus building fund.

John DeVincenzo

A San Luis Obispo County orthodontist and owner of landmark Avila Valley Barn, John DeVincenzo, SD’64, MS’67, died suddenly on September 19, 2009, while in his Gopher Glen apple orchard.

Dr. DeVincenzo served in LLUSD’s department of oral medicine during the ’60s, and continued as faculty in the Department of Orthodontics until the mid ’90s.



Dr. John DeVincenzo

Operating what has been called a “very innovative practice,” Dr. DeVincenzo held several patents, and published clinical, office-based research. Additionally, he served for a decade on the San Luis Coastal Unified School District board. An associate assessed

his effectiveness on the school board as arising in part because he “talked to hundreds of students every week.”

Sally, Dr. Vincenzo’s wife, notes her husband’s strong commitment to family, farming, businesses, and community work. “He was passionate about everything he did,” she comments. And an orthodontic research associate says, “He was determined, a man sound in his faith, fun-loving, and quirky.”

Affectionately known as “Dr. D,” DeVincenzo encouraged his young patients to pursue excellence in education. One of his patients commented, “I’ve had the pleasure of knowing Dr. D since the age of six. He influenced me to become a dental hygienist, just as he has influenced and encouraged many of those he once put in braces.”

Mourning their loss are Dr. Vincenzo’s wife Sally of San Luis Obispo, his daughters—Mary DeVincenzo and Katie Kelly of Davis, CA—his son, Dr. John Jr., of the University of Tennessee School of Medicine, and numerous well-loved grandchildren.

Richard Halburg

Richard Halburg, SD'64, or Dick as he was called by his friends, died peacefully on September 15, 2009 in Huntsville, Alabama, after a battle with infection following surgical removal of his cancerous bladder.

Dr. Halburg was born on May 31, 1935, and grew up in Redlands, California.



Dr. Richard Halburg

After graduation from Loma Linda Academy in 1953, he attended first Pacific Union College, then La Sierra College, then finished his pre-dental college education at Walla Walla College.

Dr. Halburg was a talented individual with many skills. His classmates fondly remember him as having a ready smile and a consistent sense of hu-

mor. No matter how tense a situation might be in class, clinic, or lab, he found a way of diffusing such situations with a funny remark that always brought smiles. He had the same ability with patients, making them feel comfortable and relaxed even in a dental school clinic environment. His skills in managing patients was a hallmark of his practice as well.

Other skills included a gift for music. He could sing and play instruments, his favorite being the trombone, which he often played with the Southern Comforts Dixieland Band in Alabama.

After dental school, Dr. Halburg opened a private practice in Huntsville, Alabama, that he maintained until his retirement in 2005. But gardening and bird watching—two of his many hobbies—were not enough to keep him occupied in retirement, so he spent time treating children in the Heals Dental Clinic in Huntsville, until sickness prevented him from continuing.

Dr. Halburg is survived by his wife Donnis, seven children and five grandchildren. The husband, father, and friend with the ready smile and good cheer will be missed.

Warren Jennings Knight

With his family at his side, Warren Jennings, SD'59, died in Florence, Colorado, on December 5, 2009, after a ten-year battle with cancer. Born July 8, 1924, in Centerville, Kansas, Dr. Jennings would earn a reputation for establishing his life's priorities: God, family, friends, and country. He served

as a World War II army medic in Europe, where he received the Purple Heart and Bronze Star.

Pursuing dentistry at LLUSD, he graduated in 1959 and opened dental practice in Missoula, Montana, before moving to the family ranch in Florence in 1968, near the office where he practiced until 1999.



Dr. Warren Jennings Knight

Dr. Knight's greatest joy was

being a husband, father, grandfather and great-grandfather. His 51-year marriage to Phyllis Ernest ended with her death in 2002.

He was active in building the Missoula Seventh-day Adventist Church, and a charter member of the Stevensville Seventh-day Adventist Church, and most recently the Florence Adventist Crossroads Fellowship.

Among his many enthusiasms were horseback riding and listening to gospel music. A major hobby was cars—buying them, fixing them, and driving them.

Preceded in death by his wife Phyllis and infant daughter Kathryn Elizabeth, Dr. Knight is survived by his children—David (wife Carol) of Haines, Alaska; daughter Susan Knight (husband Ken Reiber) of Florence, MT; daughter Sandy Lacey (husband Dennis) of Florence; son Tim (wife Becki) of Florence—nine grandchildren, and six great-grandchildren.

The family suggests that memorial gifts be made to Montana Cowboy Camp Meeting at Crossroads Adventist Fellowship, P.O. Box 1450, Florence, MT 59833.

Orville Stanley McElmurry

One of seven dentists who met at a 1943 Grand Ledge, Michigan, campmeeting to promote establishment of a school of dentistry at Loma Linda, Orville McElmurry, DDS, was living but a few miles from that school when heart failure ended his life on August 25, 2009.

A charter member of NASDAD, organized in 1944, Dr. McElmurry could cite and endorse the organization's first objective: working with the General Conference of Seventh-day

Adventists to establish the school that would enroll its first students in 1953; his son Douglas (SD'75B) would in due time also enroll there.

One of eight siblings, Dr. McElmurry was born on a farm near Kinde, Michigan, in 1915. After graduation at La Sierra College, he pursued dentistry at Emory University, Atlanta, Georgia, and later served in the



Dr. Orville Stanley McElmurry

U.S. Army as a dentist (1952-55). Practicing dentistry first in Ohio and then in Lansing, Michigan, Dr. McElmurry would retire and move to Redlands, California, after the death of Jeanne, his wife of 50 years.

In 1990 Dr. McElmurry "eloped" with Annetta Kragstad, and they spent their time living in Redlands, Lake Arrowhead, and Palm Springs, California, and also in Lansing, Michigan. Family members and friends recall his waves, big smiles, laughs, and hand pats. He sang his favorite hymns and played his harmonica with energy, tended his garden with care, fed and observed wild birds with interest.

Preceded in his death by his son Reginald, Dr. McElmurry's mourners include his wife, Annetta, his children—Sharon Cemer (husband Bill); Leowna, British Columbia; Cheryl, RDH, of Lansing, Michigan; Douglas McElmurry, SD'75B, of Bellevue, Idaho—and stepdaughters Kathleen Kragstad Carter, DH'71, of Yucaipa; and Lorraine Kragstad Ehrler, DH'68, of Redlands.

His family suggest donations in Dr. McElmurry's memory be made to the music ministry of the Loma Linda University Church of Seventh-day Adventists <www.lluc.org>.

Benjamin Nelson

A three-time awardee of LLUSD's teacher-of-the-year citation, Benjamin E. Nelson, DDS, MPH, served as associate professor of prosthodontics, 1973-1990, and continued as a relief teacher several years thereafter. His death in Loma Linda at 89 on September 3, 2009, came after a valiant battle with Parkinson's disease.

Born (1920) in Kansas and raised in Colorado, Dr. Nelson spent his early adulthood in the army, crossing the Atlantic 17 times as a medic on army personnel transport ships. His marriage during a furlough in 1944 to Fern Seamount, a graduate of Boulder Sanitarium School of Nursing, began 65 years of devoted married life.

After World War II, the couple lived in Missouri, where Dr. Nelson was an academy dean of men. He then completed dentistry at the University of Missouri, Kansas City.

After ten years of dental practice in Colorado, Dr. Nelson became the first NASDAD dentist sent to Africa. In Malwai he provided dental care for many prominent citizens, including the country's president, as well as flying via a Cessna 180 plane on a monthly 900-mile round trip to provide dental care in remote areas.

The completion of an MPH at Loma Linda University preceded Dr. Nelson's long-time position on the School of Dentistry faculty.

Mourning his death are his wife, Fern; son, Steven, SD'83; daughter Barbara, SN '69, and four grandchildren. The family suggests that gifts in Dr. Nelson's memory may be made to LLUSD's Service Learning Fund.



Dr. Benjamin Nelson

Edward Shreaves

Edward Shreaves, SD '59, died October 22, 2009, in Pasadena, California, nine days before his 90th birthday following complications from a fall. The sixth of eight children, Dr. Shreaves grew up in Metompkin, Virginia. While serving four years in the Navy during World War II, he met Carmen Miller in Santa Monica, California, during a leave. They were married September 30, 1946.

Dr. Shreaves worked as a mortician in Santa Monica after leaving the service.



Dr. Edward Shreaves

He and Carmen moved to College Place, Washington, where he pursued predoctoral courses at Walla Walla College. There his good friend and teacher, Paul Heubach, baptized Dr. Shreaves. Entering the University of Oregon dental school, Dr. Shreaves, along with seven classmates, faced the challenge of obligatory Saturday classes, prompt-

ing their transfer to LLUSD, where they finished dental school.

For more than 30 years Dr. Shreaves managed a successful dental practice in Glendale, California. Known by friends and family as one of the kindest, sweetest, most cheerful and handsome men, he was often mistaken for Lloyd Bridges. Once he demurred when asked for an autograph, saying he was not Lloyd Bridges; the autograph hounds demanded to see his driver's license for proof. His friends recall his piercing blue eyes that sparkled, especially when he asked, "How's your love life?" which he did often.

Dr. Shreaves is survived by his wife, Carmen, his three grandsons—Steaven Davis, CJ, and Mason Finley—his brother, Sherwood, and many nieces, nephews and friends. In lieu of flowers, his wife requests that donations be made to the class of '59 Service Learning Fund.

William Young

Dr. William L. Young, 88, died on November 21, 2009, following a stroke. With his wife Mary he had moved in 2008 from Palm Desert to Loma Linda's Linda Valley Villa Retirement Community.

Bill, as he was known to his many friends and colleagues, was a 1971 graduate of the newly established endodontic program at Loma Linda. After completing his specialty training, he changed the general practice he had run since 1951 in El Cajon, California, to an endodontic practice, from which he retired in 1986. For the next 13 years Bill and Mary were "full time RVers," enjoying Oregon in the summers and the desert in the winters.

After graduating from the endodontic program, Dr. Young decided to give back to a profession that had been so good to him, and offered to drive the nearly 200 miles round-trip from El Cajon to



Dr. William Young

Loma Linda on a weekly basis to teach in the endodontic clinic. In 1974, he was promoted to assistant professor and he continued teaching for several years. Because of his many years of experience in dentistry and his love for the profession, Dr. Young was a great source of practical clinical wisdom to colleagues and students.

Born and raised in Glendale, California, Bill attended UCSF and earned his DDS in 1946. After practicing general dentistry in Glendale and the Navy, Bill and his family moved to El Cajon, where he spent the rest of his professional life. He and Mary raised four children, two of whom attended Loma Linda University School of Dentistry: Benjamin Young, SD'80, a periodontist in San Antonio, Texas, and Susan Young Crawford, SD'83, who practices in a small Alaskan village. Two additional children in the Young family, Daniel and Thomas, are physicians.

Bill Young enjoyed dentistry, and Mary says he never came home and complained about difficult patients; he looked at dentistry as his privilege to serve people. His interest in taking endodontics was encouraged by Dr. Ed Nutting, who helped Dr. Ronald Buell begin the advanced education program at Loma Linda. He lived a full life as a family man, a professional, and a teacher of endodontics.

LOMA LINDA UNIVERSITY SCHOOL OF DENTISTRY
CDE Courses for Winter 2010

WHATEVER HAPPENED TO CARIOLOGY?

Brian Novy, DDS

SUNDAY, MARCH 7, 2010

ETHICS IN EVERYDAY PRACTICE

Muriel Bebeau, PhD

Maintaining Professional Autonomy in a Changing Health Care Environment

Robert Kiger, DDS

Case-based Ethics for Dental Professionals

Graham Stacey, PhD

A Conceptual Basis for Faith-based Ethics in Health Care

Kris Wilkins, MA, RDH

Case-based Ethics for Dental Professionals

Gerald Winslow, PhD

Universal Health Care Effect on Ethics

SUNDAY, MARCH 14, 2010

PEDIATRIC DENTISTRY

Barbara Sheller, DDS, MSD

SUNDAY, MARCH 28, 2010

INFECTION CONTROL & CALIFORNIA DENTAL PRACTICE ACT

W. Eugene Rathbun, DDS, PhD

Bette Robin, DDS, JD

SUNDAY, APRIL 11, 2010

THIRD ANNUAL PERIODONTAL SYMPOSIUM

Craig M. Ririe, DDS, MS

Moderator

Jeffrey Henkin, DDS, MS

Implantology: An Overview of the Science

Yoon Kim, DDS, MS

Tissue Management 101 for Implant Surgery

Oliver Hoffmann, DDS, MS

Regeneration of Intraosseous Defects

Dennis Smith, DDS, MS

Developing Optimal Gingival Form Around Implant Crowns

R. Leslie Arnett, DDS, MS

Gum Bugs

Albert Weissman, DDS, MS

Crown Lengthening – Considerations and Techniques

Nikola Angelov, DDS, MS, PhD

Dealing with Recession: Clinical Aspects of Predictable Root Coverage

SUNDAY, APRIL 18, 2010

FIXED PROSTHODONTICS: KEY FACTORS AFFECTING SUCCESS IN DIAGNOSIS AND TREATMENT PLANNING

Charles J. Goodacre, DDS, MSD

SUNDAY, APRIL 25, 2010

For prices, location, CE hours and more information about these or other courses, contact:

Continuing Dental Education

11245 Anderson St. Suite 120, Loma Linda, CA 92350

Phone: (909) 558-4685 Fax: (909) 558-4858 www.dentistry.llu.edu


**PATTERSON
DENTAL**

El Segundo Branch
185 S Douglas St., Suite 100
El Segundo, CA 90245
800.336.8254

*Bringing the
Future to you!*



Patterson EagleSoft

EagleSoft software provides seamless integration between operator devices from multiple business partners – no bridges, no links!



Schick Digital

CDR® wireless X-ray system features direct mouth-to-screen image with proven quality, instant viewing and unlimited positioning.



CAESY®

Patient Education Systems

CAESY gives patients vital information to help them understand your diagnoses, recommendations and rationale. You'll improve case acceptance and spend more time performing (rather than explaining) procedures.



CEREC® 3D

You've got to see it to believe it! CEREC® 3D contains significant enhancements that allow the operator to visualize restorations in three dimensions.

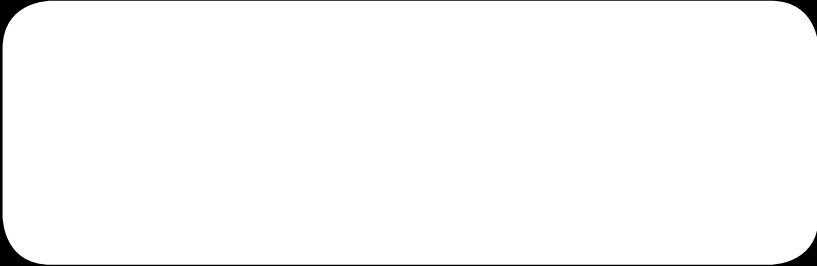


LOMA LINDA UNIVERSITY

School of Dentistry

LOMA LINDA UNIVERSITY
DENTISTRY
SCHOOL OF DENTISTRY
LOMA LINDA, CA 92350

NONPROFIT ORG
U.S. POSTAGE
PAID
COLOR PRESS
99324



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