

# LLUSD ARTICULATOR

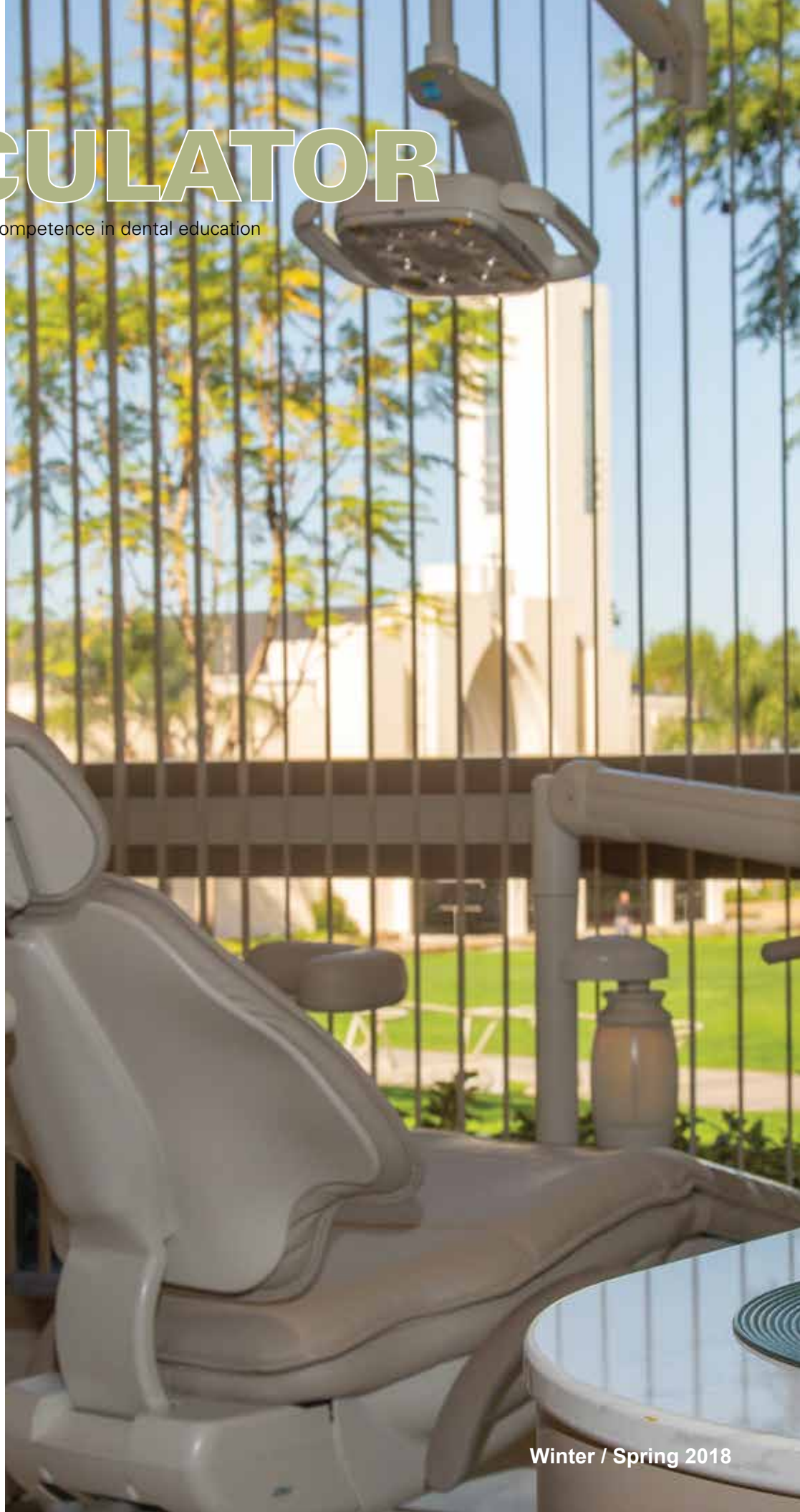
The melding of compassion and competence in dental education

**Robert Smith's  
generous gift**

**Zambian miracle**

**One Homecoming  
second edition**

**Fostering LLUSD  
student research**





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*We wanted to give something back to the School of Dentistry. By donating a piece of property, we benefited from immediate tax savings while having the satisfaction of knowing our gift would make a difference in the lives of students.*

— Clyde (SD '70) and Kirsty Roggenkamp  
Professor at LLUSD



# What's **Your** Plan?

## For the Future of our Students We **LIVE** to Give

We prepare students to care for the whole person — body, mind and spirit. You can play an important role in impacting Loma Linda University Health by establishing a legacy gift to benefit Vision 2020 — The Campaign for a Whole Tomorrow.

To learn more about estate gifts or other ways to give, contact the **office of planned giving**.

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**LOMA LINDA  
UNIVERSITY  
HEALTH**

**MANY STRENGTHS. ONE MISSION.**

# LLUSD ARTICULATOR

The melding of competence and compassion  
in dental education.

VOLUME 29, NUMBER I WINTER/SPRING 2018

**Articulator** (formerly **Dentistry**) celebrates with alumni and friends the School of Dentistry's efforts to combine compassion and competence in the education of oral healthcare professionals. LLUSD alumni represent the strength of that amalgam. The journal is published twice each year by the Loma Linda University School of Dentistry Office of Marketing.

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## LLUSD 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.



*Gary Kerstetter, DDS'82, director, Service Learning, is surrounded by young friends while on a mission trip to Roatan, Honduras.*

Editors note:

Occasionally, it happens that the material comprising an issue of the alumni journal does not provide an image that seems suitable for the cover. The problem may be something so mundane as the absence of a photo or graphic that lends itself to the cover template's vertical format.

In such a circumstance a couple of issues back, we turned to a photograph of an ice cave taken by alumnus Douglas Sandquist, DDS'97.

The need for an image for this *Articulator's* cover brought to mind simultaneously a photo and a caption. The photo was taken on February 24, 2015, by LLUSD photographer Daryl Osborne during the grand opening of the Center for Dental Research and its 5,600 square foot expansion into the east wing ground floor of LLU's Chan Shun Pavilion.

This cover's "view from an operatory" seemed to capture fittingly the amalgum of faith and profession that the LLU School of Dentistry was founded to foster.

Doug Hackleman, MA

Editor

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## DEAN'S MESSAGE

### *Waymarks and progress*

This year Loma Linda University School of Dentistry (LLUSD) celebrates its 65th anniversary. Founded by the National Association of Seventh-day Adventist Dentists (NASDAD), the principles on which the School was established are as follows:

- To provide the highest possible education and clinical training in an environment where spiritual values are incorporated into the curriculum as well as the everyday life of students, faculty and staff
- To enhance patient treatment by combining the School's focus on clinical expertise and innovation with modern research
- To provide a team approach through interdisciplinary coordination to achieve quality of care, education and research focused on optimal treatment
- To provide patients with the most advanced, proven methods of maintaining, restoring, and enhancing oral health and overall well-being.

It's clear to me that the founding principles are still highly relevant and could have been written for our times. The values these principles embody continue to reinforce and guide the mission of our dental education.

Since assuming the dean position, I have frequently been asked what my vision and goals are for our alma mater. The immediate goal is to address the three biggest challenges that we face—

- recruiting and maintaining the right faculty and administration,
- adapting our curriculum to meet future demands, and
- focusing on clinic operations to ensure they deliver optimal results for student learning.

Administrative leadership transitions are merging congenially with the addition of Mark Estey and Esther Valenzuela to helm respectively Academic Affairs and Admissions and Student Affairs. Continuing changes are anticipated next year in several key administrative leadership positions. We have wonderful faculty, and we continue to seek and acquire more dental educators who are energetic, passionate, hardworking servant-leaders who ascribe to the Loma Linda University mission and motto in all their day-to-day responsibilities.

The School's curriculum is being refined. We are sifting through the what, when, where, and why of our education and how it is currently delivered while considering how to do it even better. The emphasis is on learning instead of teaching. Creating a "just in time" model—by which



*Dr. Robert Handysides*

students can acquire knowledge, skill sets, and values today and apply them tomorrow—is the goal. Content will be delivered in an interprofessional manner meant to maximize learning and optimally advance patient care. All of this curriculum refinement fosters our foundational purpose.

Clinic operations are improving. Our goal is to create a better educational experience this year than students had the previous year. We are making progress. The number of clinical educational experiences are up this year over last. Technology utilization continues to grow, and plans are being made for the development and upgrading of a design center and our classroom and laboratory spaces. Principles of practice management have been established and will be honed every year until there is a pertinent didactic and clinical thread running from matriculation to graduation.

Underpinning all these efforts are generous alumni, donors, and friends. We have a lot to be proud of as we reflect on our history; however, I believe the best is yet to come. Thank you for your continued dedication, prayers, and support.

Robert Handysides, DDS  
Dean

# WHERE ARE THEY NOW?

## Brief updates on the noteworthy professional and personal activities of LLUSD alumni

### Franklin Ballard

"I was one of five non-Seventh-day Adventists in LLUSD's class of 1969," says Dr. Franklin Ballard, DDS'69. He has maintained many positive relationships with classmates since graduation. He was a business major in college, but during a post-college banking career—creating loans for local dentists and doctors and investing in real estate—he decided he'd like to be on the other side of the dental chair.

He recalls 21 years on the faculty at the University of the Pacific Arthur A. Dugoni School of Dentistry as especially rewarding in both pre-clinic and senior clinic teaching appointments. He liked the discipline of preparing precisely what he would present in the classroom. Going in 1997 to the dental clinic at Sir Run Run Shaw Hospital in Hangzhou, China, he taught continuing education courses for 32 Chinese dentists, ably assisted by his wife, Lydia Chang, PhD, who is fluent in the Chinese language.

An activity long pursued—golfing—began during Dr. Ballard's banking days. "I did more business on the golf course than at the bank," he recalls. Now in retirement in Danville, California, he continues to manage his real estate investments—and to meet golfing buddies on the course. An active LLUSD alumnus, he is looking forward to the 2019 alumni weekend when he celebrates with classmates the fiftieth anniversary of their graduation.



**Dr. Franklin Ballard**



**Dr. Wendell Danielson**

### Wendell Danielson

Wendell Danielson, DDS'59, retired at 78 after an earlier unsuccessful attempt when closing his office would have ended area dental care. Today he's writing his memoir. It will include his adventures on the British Columbia coast traveling on a 50-foot offshore cruiser, *Northern Light*, while sponsoring volunteer dentists. They stopped at places with exotic names—Bella Coola, Anahim Lake, Bella Bella, Klemtu, Rivers inlet, Church House,

Kingcome Inlet, Oweekano, Queen Charlotte City, Anousat (on Flores Island), Port Albion (near Ueluelet), and Torofino.

Dental work on the boat was challenging. Tossing waves sent Dr. Danielson's light coasting. He resorted to a headlamp, to better see in the patient's mouth. His team traveled by air, using amphibious aircraft, planes with floats; it was often necessary to pump water from the floats before the craft could become airborne.

Dr. Danielson lives with his wife in Abbotsford, B.C., where their home offers a view of open ocean. Dr. Danielson reflects, "I cannot stop praising God for His protection and encouragement in times of extreme need in our mission environment." Remaining in service mode he has volunteered as a crossing guard for children attending the local K-4 school. Is he acquainted with the children? "I sure am!" he says. He is busily making new friends.

### Jeanette Skirvin

While still in grade school, Jeanette Skirvin, BS'74 (DH), shared a homework paper with her mother. Her mother's response: "You should become a writer!"

Puzzled, Jeanette asked, "What's a writer? What do they do?" The textbooks she was reading weren't compelling. So Jeanette took dental hygiene. And she practiced it, working in her husband's dental office for more than 20 years.

Then in 2009 Jeanette said, "I wonder what would happen, . . ." and she began writing a short story. After a year, writing and rewriting, she got to know her characters very well—and the 19 pages expanded to a book, *Snow Sizzling in Soleil*. It was the first of her award-winning books.

When readers asked, "What happened to the children in *Snow*," Jeanette started another book, featuring one of the characters. Now at work on her fifth book, developing more of the original characters, Jeanette clarifies, "They're stand-alone books. But you'll recognize the people."

Scenes depicting reconstructive surgery, characters with braces, and brain trauma offer clues to Jeanette's other life. As one reviewer observes, "I was surprised with the author's knowledge of medical terms and even tools." In a parallel pursuit, she's at her hobby: creating YouTube presentations of poetry and other written works.



**Ms. Jeanette Skirvin**



**Dr. Delvin Hansen**

### Delvin Hansen

One of two dentists in Harvey, North Dakota (Pop. 1,783), Delvin Hansen, DDS'78, remains very busy. He rarely takes his wife to dinner (the town boasts six restaurants—if you count Tastee Freez and Subway). "No Taco Bell; we make our own." He walks to work every day, even if it's 30° below. With Iowa farm roots, he's comfortable in a rural setting while managing a practice parallel to extensive travel. Last year he logged 90 miles walking in the British countryside. "You can't park easily there," he explains.

At age 53, Delvin told an air force recruiter: "I want two things: rank and location." Both granted, Lt. Col. Hansen went with his wife to his chosen destination, Germany, providing dental care (with 30 other dentists) to 60,000 American expatriates, the largest assembly of US citizens living outside the United States. The Hansens flourished in Germany—one hour to Luxembourg or Frankfurt, six hours to Amsterdam, Switzerland, or Austria, all conveniently explored.

In addition to overseas military service, Delvin has participated in multiple dental mission programs: Zaoksky, Russia (twice), Ukraine, Nepal ("exciting"), the Philippines. Five years ago he was doing bush dentistry in Zambia, Africa. He anticipates more extensive mission trip involvement when he retires.

## DEVELOPMENT

*Robert Smith, LLUSD alumnus, ambassador, benefactor*

**R**obert “Bob” Smith, DDS’67, is a retired School of Dentistry alumnus living with his wife Sheryl in Wenatchee, Washington, where he concluded his practice in May 2011.

Dr. Smith purchased a practice (September 1967) in Bellflower, California, directly out of dental school and practiced there until 1993. He spent three of his Bellflower years earning a certificate in orthodontics from University of Southern California that he was awarded in 1980. He married Sheryl Lien, a minister’s daughter who grew up in Grants Pass, Oregon, in 1992 and the couple moved to Wenatchee in 1993, where he practiced privately until his retirement in May 2011 and where his avid devotion to golf survives his career in dentistry.

Born in Jamaica, Dr. Smith spent most of his childhood and youth in Silver Spring, Maryland. His father, Cleo Smith, was a professor of physics, math, and astronomy at Columbia Union College (now Washington Adventist University) in nearby Takoma Park.

As Dr. Smith finished college, the older of his two dentist brothers was completing dental school at a nearby university and encouraged him to do the same. The following year Robert entered the School of Dentistry where he appreciated Loma Linda University’s Christian community along with what he now recalls gratefully as “top notch, cutting edge” professional training. He thrived at LLUSD and was to be chosen was chosen to serve as student association president for the 1966-1967 academic year. Some of his happiest memories include corn feeds on the beach and cooling watermelons in the ocean.

Last year was the fiftieth anniversary of Dr. Smith’s class of 1967, a School of Dentistry honor class reunion that was celebrated at the 2017 One Homecoming. He was looking forward to the event and the opportunity to fraternize again with classmates, especially those he had maintained a connection



**Dr. Robert “Bob” Smith**

with such as Jim Wise, Bill Miller, Jack Bobst, and Larry Bunn; but a kidney stone attack put him in the hospital. He called the School to say he wouldn’t be able to attend and ended up speaking with LLUSD development officer Juliana Powell and expressing how distraught he was to miss the event and the presentation of his honor class medallion.

The upshot of that conversation was that Dr. and Mrs. Smith made a later trip to Loma Linda that included his first return in fifty years to the Prince Hall student clinic and a tour by then acting

dean Joe Caruso, DDS’73, MS’75, of the place he had spent so much consequential time. Dr. Smith says he was “blown away by the diversity, growth, and professionalism” he observed at his alma mater. A highlight of Dr. Smith’s tour of LLUH was a visit with heart surgeon Leonard Bailey, MD, with whom he had occupied classrooms in Takoma Park since the third grade and who his father later taught at CUC.

Grateful for so much that he feels he owes to his Loma Linda professional education, Dr. Smith and his wife hosted an “LLU Comes to You” event on May 5 this year, providing for many alumni from the Wenatchee area, allowing them to visit with their alma mater’s philanthropy team members (Tim Sherwin and Juliana Powell) and Dean Robert Handysides, DDS’93.

“I wish I was Warren Buffet or Bill Gates so that I could just write you checks,” Dr. Smith said recently. What he does have is a 70-acre farm in Berkeley Springs, West Virginia, that he is selling and will be contributing its proceeds to the School of Dentistry. And then there is Dr. Smith’s unrestricted Legacy Trust of which the School is primary beneficiary.

A self-appointed ambassador for his alma mater, Dr. Smith says, “It is easy to be generous to Loma Linda and exciting to have a part in making man whole.”



## BY THE NUMBERS

### *Service Learning thrives*

#### International Activity

Students	Trips	Faculty
133	16	36

Patients	Procedures
2,346	4,967

#### Local Community Activity

Students	Trips	Faculty
1,687	371	258

Patients	Procedures
3,797	7,451

#### Annual Summary 2016-2017

Total Students	Total Trips	Total Faculty
1,820	384	294

Total Patients	Total Procedures
6,335	11,302

Nine photos (top to bottom, L-R): Mobile outside and inside; 1. Dr. Gary Kerstetter with Elaine Bersaba DDS'18 and Arfassa Gullo DDS'18; 2. Arfassa Gullo DDS'18 provides patient services in the Mobile Clinic; 3. Dr. Kerstetter in Roatan, Honduras, with new friends; 4. Sabbath School in Roatan Honduras in Escuela Jose Trindad Reyes; 5. Ross Emerick DDS'18 with self-assisting patient in Guyana ; 6. Amanda Manzano DDS'17 works on a patient; 7. June Kim DDS'17 made a friend; 8. Honduras kids hang with LLUSD volunteers; 9. Alison Perez DDS'18 educates young people in Guyana.





## LLUSD'S inaugural RDAEF class graduates



**Back row (L-R): Dr. Holli Riter, Ms. Jeri Fowler, Dr. Mark Estey. Graduating RDAEF2 class members (L-R): Angela Mares, Belem Rosas, Brandi Derrick, Kelsey Wood, Susana Degollado, Jessica Helgedalen, Elia Juarez, Sandy Dunn, Kim Rust, and Pauline Nimako**

The Loma Linda University School of Dentistry Registered Dental Assistant Expanded Functions (RDAEF2) program celebrated its first graduating class of ten students on April 22, 2018, with the presentation of certificates of completion and embroidered lab coats.

The program began June 4, 2017, and finished on April 22, 2018. It was a day of ambivalent feelings that mixed the excitement of graduating from the rigorous RDAEF2 program coupled with the looming anxiety of state board licensure practical exams three weeks later (May 12, 2018). Instructors, Jeri Fowler, CDA, RDAEF2, OA, assistant director, Continuing Dental Education and Alumni Affairs; Holli Riter, DDS'98, associate professor, Division of General Dentistry; and Mark Estey, DDS'98, assistant dean, Office of Academic Affairs, hosted the celebration and expressed pride and admiration for the class accomplishments.

The Registered Dental Assistant in Expanded Functions was established in 1986 with Hazel Torres (author of the textbook *Modern Dental Assisting*, the most widely known dental assisting textbook) becoming in that year the first licensed

RDAEF. Then in 2010, legislation was passed by the State of California approving additional restorative functions for RDAEFs, which precipitated the establishment of RDAEF2. These expanded functions include the placement of direct restorations, permanent cementation or indirect restorations, and the obturating of root canals. RDAEFs are also trained to place retraction cord and to take final impressions, which formerly were the exclusive duties of the RDAEF1.

"I cannot overstate the beneficial impact that RDAEF2s can have on a dental practice," says Dr. Estey. "The two 'best things' I've have done over the past few years to greatly improve my dental practice are the incorporation of digital impressions and RDAEF2s. But most important has been the addition of two RDAEF2s and an RDAEF."

In his practice, Dr. Estey says, "We have six operatories and two dentists. Our office supports two chairs dedicated for hygiene and four operatories for the two dentists. This level of staffing allows us to see patients in a comfortable, timely manner. We always want to be able to spend the time we need with each one of our patients to ensure they not only

*"I cannot overstate the beneficial impact that RDAEF2s can have on a dental practice," says Dr. Estey.*



*Dr. Estey undergoes restoration at the hands of his RDAEF2s Mandy Rhodes and Kim Rust.*

get but feel they get proper care.” He sees only advantages to the utilization of RDAEFs and RDAEF2s, which enable “one dentist to work out of three or four operatories and still have the time to appropriately treat each patient. The utilization of RDAEFs and RDAEF2s enables us to move from one patient to another and apply the dentist’s time most efficiently,” he explains. “This ability to ‘hand off’ the treatment of patients earlier in the treatment process permits the dentist to see more patients, without any compromise in the quality of patient care.”

Dr. Estey says, “RDAEF2s are able to place restorations for patients as well as I can; otherwise I would not feel comfortable with them performing these procedures. I have such confidence in my staff that when I underwent a restoration, my wife prepared the tooth and one of our RDAEF2s placed the restoration.”

Evidence that there is considerable demand for this upgrade in certification may be deduced by the fact that half of the LLUSD graduates had been hired as RDAEF2s before they completed the program. “Currently there are approximately 35,000 dentists practicing in California, and there are only around 300 RDAEF2s,” says Dr. Estey. “The dentists in California that are utilizing those few RDAEF2s are noticing how much they positively impact their dental practices. I wonder,” he asks, “how long it will be until the rest of those 35,000 realize what they are missing?”

Duties that are permitted under RDAEF2 certification:

- Conduct preliminary evaluation of the patient’s oral health, including (but not limited to) charting, intraoral and extra-oral evaluation of soft tissue, classifying

occlusion, and myofunctional evaluation.

- Perform oral health assessments in school-based, community health project settings under the direction of a dentist, registered dental hygienist, or registered dental hygienist in alternative practice.
- Size and fit endodontic master points and accessory points.
- Cement endodontic master points and accessory points.
- Take final impressions for tooth-borne removable prosthesis.
- Place, contour, finish, and adjust all direct restorations.
- Polish and contour existing amalgam restorations.
- Adjust and cement permanent indirect restorations.
- Perform cord retraction of gingiva for impression procedures.
- Take final impressions for permanent indirect restorations.

LLUSD’s most recent RDAEF program began June 3, 2018, and will conclude May 5, 2019.

For additional information call Jeri Fowler, director of the RDAEF program at (909) 558-4399.

### ***LLUSD offers Orthodontic Assisting Permit Program***

**This 84-hour course** (52 hours at LLU laboratory, 32 hours at extramural facility) **makes RDA students eligible to take the written state board examination for Orthodontic Assisting Permit licensure.**

**This Orthodontic Assisting Permit course will train you to**

- prepare teeth for bonding, and select, pre-position, and cure orthodontic brackets after their position has been approved by a licensed dentist;
- remove only orthodontic brackets and attachments with removal of the bonding material by a supervising licensed dentist;
- size, fit, and cement orthodontic bands;
- remove orthodontic bands and excess cement from supragingival surfaces of teeth with a hand instrument;
- place and ligate archwires.

**Tuition: \$1,500**

**Program dates: September 2, 11, 13, 16, 25, 27, 30; October 11, 14**

**To register, contact Jeri at: [JLFowler@llu.edu](mailto:JLFowler@llu.edu)**

**For details call: (909) 558-4399**



## Zambian miracle

If miracles are manifested by a sequence of improbabilities, Nsekwa Siwale and her husband Jones Simamba have been the beneficiaries of a kind Providence—at least that is how they see it.

The Zambian couple was married in April of 2014 at the Seventh-day Adventist Church in Lusaka, the country's capital (elevation 4,196 feet), and have a two-year-old son, Shemaiah.



*L-R: Shemaiah, Jones Simamba, and Nsekwa Siwale*

Nsekwa and Jones were raised in different parts of the country—both by Christian parents, but in Jones' family, by Seventh-day Adventists.

The young people met while attending college on adjacent campuses in Lusaka, Zambia's capital. Nsekwa earned a three-year diploma from Evelyn Hone College in biomedical sciences and works as a laboratory technician, while Jones completed an accounting program that qualified him for his work as an accounts clerk.

One day in 2010, while the two students were attending their respective colleges, Nsekwa's older brother Njavwa, who had become a friend of Jones, brought home some DVDs that featured an Adventist minister. It wasn't long before the siblings decided that "the truth was the truth" and were baptized as Seventh-day Adventists. Meanwhile, Jones and Nsekwa became acquainted at SDA Impact meetings that support Adventist youth and their outreach efforts. "That's where Jones saw me and where we became friends," says Nsekwa. "Jones loves to preach and gets invited to do that

at different places, especially at schools. At times he would invite me to go along so we could be together—sometimes on hospital visitations where we would pray with patients who are willing. He was a great friend and you could tell he was interested in spiritual growth, and I liked him for that."

As Jones recalls it: "In time, we thought God had paired us for a reason, not just in ministry," he smiles.

Life had been moving in positive directions for both students, except that Nsekwa continued to be bothered by a painless swelling in her left lower jaw that began in 2009. Her dentist did not know what the problem was and removed one premolar. For a time it seemed to help, but the swelling returned, and she was given a series of antibiotic treatments at a hospital that provided no solution. Then doctors at another hospital took a biopsy and discovered an ameloblastoma—a rare, benign but aggressive tumor that develops most often in the jaw near the molars. An oral maxillofacial surgeon at a government hospital removed nine of Nsekwa's teeth and a significant amount of jaw bone that he replaced with an insubstantial wire.

Through their work, the couple had become friends with NASDAD member and School of Dentistry alumnus Paul Yoo, DDS'08, who was the director of the Adventist Dental Clinic in Lusaka (his wife, Janie Yoo, MD'06, was manager of the adjacent Adventist Lusaka Eye Hospital). He took an interest in Nsekwa's mandible saga and suggested she come to his clinic so he could evaluate the condition in which the surgery had left her.

Dr. Yoo was troubled by what he saw on the x-rays, says Jones, who recalls his insisting, "I will not let you be like this. I will have to do something to help. Eventually your face will collapse because this wire does not give adequate support.' And that's why Dr. Yoo got in touch with the people at Loma Linda University, where he had studied dentistry and had friends like Dr. Ashish."

Jones referenced Ashish Sharma, BDS, MSD'14, a chief resident in the LLUSD Advanced Specialty Education Program in Oral and Maxillofacial Surgery, to whom Dr. Yoo sent Nsekwa's radiographs as well as to Dr. Sharma's chair and professor, Alan Herford, DDS'94, MD, Department of Oral and Maxillofacial Surgery.

On receiving the panoramic radiograph from Dr. Yoo, Dr. Sharma said, "We were shocked to see a K-wire [Kirschner



*L-R: Dr. Alan Herford, Jones Simamba, and Nsekwa Siwale, and Dr. Ashish Sharma*

wires are used to stabilize tissue during orthopedic surgery] connecting the proximal and distal segments of the left mandible and symphysis," the line of fusion that marks the union of the two halves of the lower jaw.

As they evaluated Nsekwa's pathology report from Zambia, Dr. Sharma said that he and Dr. Herford "were surprised to note residual ameloblastoma still present. I had never seen anything like that before and discussed the possibility with Dr. Herford of reconstructing Nsekwa's mandible using a heavy titanium plate and screws."

Dr. Herford believed it would be most prudent to remove "the residual ameloblastoma and immediately reconstruct the left mandible and symphysis using Nsekwa's own hip bone and bone allograft particles in one surgery." As Dr. Sharma explained, "This would save her multiple trips from Zambia to Loma Linda, as well as enable future dental implant and implant-supported prosthesis to be placed in her left mandible and symphysis."

Through the networking of Dr. Sharma, Nsekwa was approved for international benefit patient care at Loma Linda University Medical Center to receive a resection of the remaining tumor and reconstruction of her hollowed-out jaw. "The opportunity to help this young woman and her family, especially with

the surgical training I am receiving, stimulated my interest," says Dr. Sharma.

"When I first examined Nsekwa's radiographs I was concerned with what looked like residual tumor still in the lower jaw," says Dr. Herford. "She was left with nearly half of her mandible missing. After hearing her story, I agreed to take on her case."

To Jones that news was "like a new day opening up. It was a miracle." He said, "Dr. Herford was open and kind enough to sit with us and explain the condition and the surgery and the procedures he was planning to do and what it meant." The couple had been hoping that the repair of Nsekwa's jaw could be accomplished with one surgery,

thereby limiting significantly their time away from home. "And before we asked," Jones recalls, "Dr. Herford said, 'I think I'm going to do stage I and stage II at once.' That was a miracle for us."

Upon examination, Dr. Herford noted that "the remaining portion of her jaw had scarred and collapsed resulting in her inability to chew effectively or even speak well. She could not

bite her remaining teeth together."

"Nsekwa's surgery went well," Dr. Herford says. Using donated titanium plates and screws, and her hip bone grafts, he accomplished the resection and reconstruction of Nsekwa's

***"I'm grateful to Dr. Herford and the Loma Linda University School of Dentistry. . . It is not an easy thing to lose most of the teeth in your mouth when you're young."***

mandible on February 6 at Loma Linda University Medical Center East Campus Hospital. "During the surgery we removed the remaining tumor and then began the reconstruction of her jaw," Dr. Herford explained. "A large portion of bone was harvested from her hip and used to replace the missing bone that had been removed with the tumor. We were able to restore her jaw so she could open and close and bite again."

"I'm really, really grateful for all that Dr. Sharma has done in working out help for everything that we needed," says Nsekwa, still in healing mode. "He didn't know us. He had no idea the kind of people he was dealing with, but he really did everything that he could. I'm so happy that we were accepted at Loma Linda University to get my face reconstructed for which I'm really grateful."

"I'm grateful to Dr. Herford and the Loma Linda University School of Dentistry. I feel like I'm being given a second chance at life. It is not an easy thing to lose most of your teeth when you're young. My situation seemed so hopeless, and I felt very helpless. I'm truly grateful for what they have done for me."

Nsekwa received follow-up visits for the next three weeks while staying in the home of William and Pamela Arnold, parents of LLUSD class of 2016 graduate Wesley Arnold, DDS, before returning with her husband and son to Zambia.

As miraculous as all of that professional generosity seems to Nsekwa and Jones, it is compounded in their minds by the reception and facilitation of their visas at the American embassy in Lusaka. Ordinarily, they explain, people who request visas to travel to the United States face the suspicion that those requesting visas may not intend to return to their home country, especially when visa requests are for an entire family unit that is requesting a six-month stay.

"When we were applying, people said we were just wasting our money. Because you have to pay for the visa even before you are called for an interview," Nsekwa continued. "You first make the online payment and then you go for the interview. We kept hoping for the best. We prayed about it. When we reached the embassy, the lady interviewing us told us she could only give us two visas. We had to decide who goes, between my husband and our son."

"So we excused ourselves to think about it," Nsekwa recalled. "We waited until everyone else was done or had left. We poured out our hearts to the consular officer about how dangerous the world has become and how you just don't want to leave your children with anyone. She seemed surprisingly understanding, because what they tell you is that once they have decided not to give you a visa, they don't change their minds. That's it. But this time around it worked out differently."

"By God's grace," Jones added with a broad smile, "we were given the three visas just the same day we went for the interview."



*L-R: Shemaiah, Jones Simamba, and Nsekwa Siwale*

It is all the more gratifying to Nsekwa and Jones that both of their employers made it clear to them that their jobs would be waiting for them when they returned to Zambia, even if they were away for six months. This suggests the competence and conscientiousness both young people must bring to their work.

This episode in the lives of Nsekwa, Jones, and Shemaiah is likely to have an optimistic sequel: Dr. Arnold, now serving as director at the Lusaka Adventist Dental Clinic, most likely will be the one to place new teeth in Nsekwa's regenerated left mandible when it is ready for implants.

Most of the miracles in this story are a consequence of LLU School of Dentistry Deferred Mission Appointee graduates who have internalized their School's motto: Service is our calling.



## TRANSITIONS

### *Mark Estey appointed assistant dean, Office of Academic Affairs*

**M**ark Estey, DDS'98, was appointed by the LLU School of Dentistry to the position of assistant dean, Office of Academic Affairs, effective February 27, 2018. "On behalf of the School of Dentistry, it is my pleasure to welcome Mark Estey to our administrative team," said Dean Robert Handysides, DDS'93.

When Dr. Estey graduated from dentistry, he married his classmate Erin Carpenter, and the two of them joined the practice of her father, Mark Carpenter, DDS'80, in his Redlands dental office.

Honored as the 2014 Teacher of the Year, Dr. Estey has been a proactively engaged member of LLUSD's clinical faculty since he graduated in 1998. He completed the School's Advanced Specialty Education Program in Prosthodontics and received his certificate in 2003.

Working in the Department of Restorative Dentistry, he became its chief of section for Removable Prosthodontics from 2004 to 2015.



**Dr. Mark Estey**

Since his faculty appointment, Dr. Estey has served on or chaired at least 16 committees that include Curriculum, Dental Research, Service Learning and International Affairs, Spiritual Life and Wholeness, Strategic Planning, OKU Dental Honor Fraternity (president), and the Faculty Development Committee that he has chaired since 2015.

Dr. Estey has created an array of digital media instructional materials predominately in the area of Removable Prosthodontics.

In July 2015, Dr. Estey was appointed director of the International Dentistry Program that he has guided until his appointment to the Office of Academic Affairs.

Dr. Estey has a life beyond the School that includes one day each week of private practice with his wife and the enjoyment

of their three children, Neely, 18, Colby, 16, and James, 12. He spends at least a week each year fishing in Alaska and is a dedicated disc golf player.

### *New faculty appointments*



**Dr. Thear Alqadoumi**

#### **Thear Alqadoumi**

Thear Alqadoumi, DDS'16 (IDP), joined the Division of General Dentistry as an educator dentist on January 1, 2018.

Dr. Alqadoumi first earned his DDS degree in 2012 from Jordan University following which he worked at the Jordanian Ministry of Health and Future Dental Private Clinics in Jordan before his employment in 2016 as a managing dentist with Western Dental Services of Indio, California.

His wife, Noor Darras Alqadoumi, is in the International Dentist Program class of 2020.

An enthusiastic team player, Dr. Alqadoumi encourages quality of life enhancing communication with patients, colleagues, and administration.

# TRANSITIONS



*Dr. Trang Dang*

## **Trang Dang**

Trang Dang, DDS, joined LLUSD's Division of General Dentistry as an educator dentist on March 7, 2018.

Dr. Dang received a DDS degree from the University of Medicine and Pharmacy Faculty of Odonto-Stomatology, Ho Chi Minh City, Vietnam, in 2008 and subsequently earned another DDS degree from the University of California, Los Angeles in 2012.

Following three years of general dentistry practice in Seattle, Washington, Dr. Dang currently serves as a general dentist for Smile Builder Dental Clinic, in Riverside, California.



*Dr. Brian Goodacre*

## **Brian Goodacre**

Brian Goodacre, DDS'13, MSD'17, has been appointed assistant professor, Division of General Dentistry. His primary teaching responsibilities are to the School's predoctoral main clinic and to the Hugh Love Center for Research & Education in Technology.

During his undergraduate and recently completed dual program in prosthodontics and implant dentistry, Dr. Goodacre has been the recipient of a dozen awards and has had ten articles published in professional and academic journals.

Growing up in and around Loma Linda University School of Dentistry, Dr. Goodacre has had the privilege of working at the School since he was 16 years old. "Having worked in the maintenance department, insurance department, and computer services," he says, "I am incredibly honored to now be a faculty member."



*Dr. Jing Guo*

## **Jing Guo**

Jing Guo, BDS, MS, PhD, joined the LLUSD Department of Endodontics as assistant professor on December 1, 2017. Her BDS (2009) and master's (2011) degrees are from Shandong University School of Dentistry. She graduated in 2015 with a Doctor of Philosophy in Craniofacial and Dental Science from the University of Southern California's Herman Ostrow School of Dentistry.

Dr. Guo also received a certificate for two years of endodontic residency at the Herman Ostrow School of Dentistry in 2017.

Dr. Guo's research and publications have emphasized the investigation and evaluation of radiology techniques and applications to endodontics.



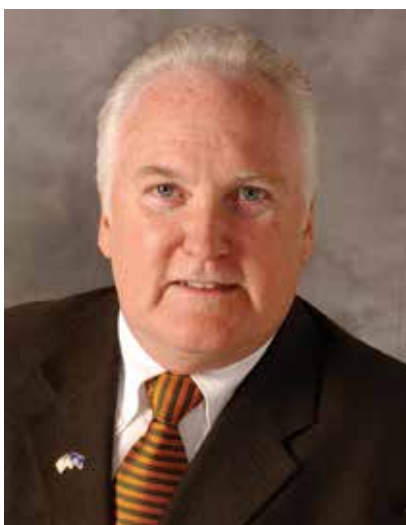
**Ms. Tina Malmberg**

### **Tina Malmberg**

Tina Malmberg, MBA, manager, Faculty Dental Practices, was appointed assistant professor, Dental Education Services, September 25, 2017.

Since 2010, Ms. Malmberg's responsibilities for Faculty Dental Practices at the Center for Dentistry and Orthodontics has included oversight of 50-plus employees (dentists, assistants, coordinators, and hygienists), and all managerial duties of running the Faculty Practices.

Ms. Malmberg's new title recognizes added responsibilities as director of the LLUSD Practice Management course. Her experiences in dental practice management compliment the University's focus on quality education and the development of improved analytical models. Areas of focus include day-to-day office processes and procedures, marketing, insurance practices as they relate to a sole or corporate partnership, treatment case presentation, patient care service standards/operating systems, information management, office management, and patient personality profiling.



**Dr. John Munce**

### **John Munce**

John Munce, DDS'78, assistant professor, Department of Endodontics, has had a part-time or volunteer faculty appointment since 1993, that changed in July 2017 to full-time status on which he will remain until December 2018.

Dr. Munce is a Diplomate of the American Board of Endodontics, a Fellow of the International College of Dentists, and past president of the California State Association of Endodontists.

He is a frequent international lecturer and the primary author of the chapter "Preparation for Endodontic Treatment" in the 50th anniversary edition of *Ingle's Endodontics*, and he recently co-authored a chapter on MTA repair of post perforations in Dr. Nadim Baba's prosthodontics textbook, *Contemporary Restoration of Endodontically Treated Teeth*.



**Dr. Frank Seo**

### **Frank Seo**

Frank Seo, DDS, MBA MPH, joined the LLUSD Division of General Dentistry as full-time assistant professor in the Division of General Dentistry on November 10, 2017.

Since earning his DDS from the University of California, Los Angeles, in 1984, Dr. Seo has spent 32 years in Southern California practicing general dentistry in Tarzana, Irvine, Upland, and Fontana.

In 1988, he added graduate degrees in business administration and public health, both diplomas from UCLA.

Dr. Seo looks forward to sharing his experienced clinical knowledge with dental students to prepare them for professional life as dental practitioners.



# TRANSITIONS



*Dr. Laurita Siu*

## **Laurita Siu**

Laurita Siu, MPH, DDS'15, has joined the Department of Pediatric Dentistry as a full-time assistant professor on January 9.

Dr. Siu earned a Master's of Public Health degree from LLU in 2010 with an emphasis in epidemiology and biostatistics. After graduating from LLUSD in 2015, she earned a postgraduate certificate in pediatric dentistry from the University of Nevada Las Vegas in 2017.

Dr. Siu is an experienced researcher who looks forward to enhancing the School's evidence-based dentistry curriculum.



*Dr. Reema Younan*

## **Reema Younan**

Reema Younan, BDS, MSc, DDS'15 (IDP), joined the Division of General Dentistry as assistant professor on January 29, 2018.

Dr. Younan earned her BDS degree (1994) and a MSc in conservative dentistry (2000) from the University of Baghdad School of Dentistry, while she received her DDS in 2015 from the LLUSD International Dentist Program.

Dr. Younan has practiced privately or as an independent contractor since 1995 in Iraq (seven years), the United Arab Emirates (2004-2009), and the USA (2015-present).

## *Esther Valenzuela appointed assistant dean, Admissions and Student Affairs*



**E**sther Valenzuela, MA, MBA, director, Admissions and Recruitment, for Loma Linda University School of Dentistry since 2006, has accepted an appointment to the position of assistant dean for Admissions and Student Affairs.

Ms. Valenzuela replaces the retiring Graham Stacey, PhD, associate dean, Student Affairs, 2008-2014, and for Admissions and Student Affairs, since 2015.

A registered nurse, and an educational guidance counselor, Ms. Valenzuela brought her combined expertise to the positions of associate dean of women, between 1985 and 1989, at what is now La Sierra University, and, from 1990 to 1994, as director, Admissions and Student Affairs, for the LLU School of Nursing.

Before joining the School of Dentistry in 2006, Ms. Valenzuela occupied the position of nurse manager at LLU Medical Center beginning in 1996, where she supervised a combined staff of 56 surgical and GI laboratory employees, and along the way earned an MBA in 2001.

Ms. Valenzuela was born in Chile to missionary parents and grew to adulthood on or around several different SDA college campuses on which her father, an SDA pastor, served as professor or administrator. It is not surprising then that she is passionate about SDA higher education and the opportunity to inspire young people to achieve their dreams.

Ms. Valenzuela says that in her new position she looks forward “to leading a collaborative Admissions and Student Affairs team that will select qualified LLUSD applicants who will excel and graduate with the skills and the desire to provide optimal whole person care to their patients and their communities.”

“It is a pleasure for me to welcome Ms. Valenzuela to her new responsibilities well acquainted as I am with her service to the School over the past twelve years,” said Dean Robert Handysides, “and I look forward to having her on our administrative team.”

## TRANSITIONS

*Graham Stacey retires*

**G**raham Stacey, PhD, associate dean, Admissions and Student Affairs, has provided the School of Dentistry “fair dinkum” service for the last decade.\*

Beginning in 1971 as a pastor in the Greater Sydney Conference of SDA, Dr. Stacey has acquired an amalgam of education and skills that combine his ministerial training and experience with three masters degrees and a doctorate in psychology. His CV provides a catalog of department directorships, pastorates, and faculty appointments—mostly at Loma Linda University—with a three-year hiatus on the faculty of Avondale College just before his recent ten years with the School of Dentistry.

Dr. Stacey has been a great crisis manager, which is fortunate because every now and then an LLUSD student needs a counselor, or sometimes a chaplain, and in him the School enjoyed both.

Seven years into his position as associate dean for Student Affairs, Dr.

Stacey’s title changed to associate dean for Admissions and Student Affairs, combining responsibilities he was carrying with those of the Office of Admissions. While some other Atlas may have shrugged, Dr. Stacey saw it as “an exciting opportunity for our team to collaborate in the coordination of care for our students, and by working together improve our standard of service,” and along the way “improve efficiencies and reduce budget impact.”

With hindsight, it is obvious that Dr. Stacey’s education and career paths prepared him for his tenure as LLUSD associate dean for the LLU School of Dentistry.

In the 1980s, he came to the United States and earned a degree in marriage and family therapy with the intention of being a better youth counselor.

He returned to the US in the 1990s to earn advanced degrees in clinical psychology and bioethics that culminated with a doctorate in clinical psychology.

His overall career contribution to the greater good he sees as having been to maximize the behavioral health and professionalism of young adults while “getting them ready for professional careers.”

“It’s really important,” Dr. Stacey thinks, “for a few School

of Dentistry administrators who are not dentists to participate with other LLUSD administrator/dentists and faculty members in the decision-making process.”

“The School of Dentistry is a very complex system,” Dr. Stacey observes; “there’s no doubt about that.” And then he notes an irony: “The very strength that makes these people good dentists—their individualism, their ‘can-do’ natures, their linear, sequential thought processes—are sometimes at variance with a system that is necessarily cohesive, integrative, and cooperative.”

Among the ways he feels he’s been

useful, Dr. Stacey includes a lot of time he spent refining the professional standards process for students. “And I drafted the professional standards process for the faculty,” he adds.

“When I first came, the Professional Standards Committee members were all faculty,” he notes. “Now there are an equal number of students on the committee.” He mentions Steve Morrow, DDS, associate dean, Advanced Education, “who really led out in that important adjustment.”

Dr. Stacey was particularly pleased to shepherd the development of an LLU chapter of the American Student Dental Association that introduces students to lifelong involvement in organized dentistry, and provides services, information, education, representation and advocacy. The ASDA also nurtures and develops student leaders within the School of Dentistry.

One thing Dr. Stacey was not hired for, but has a real interest in, is statistical analysis. “We ended up making good



**Dr. Graham Stacey**



use of a lot of School of Dentistry data," he explains. "For this, credit needs to be given to Carole White who began years ago gathering and recording the School's data regarding student performance. Without knowing just how it might be used, she recorded it all. And so we have an unbelievably rich database of student performance going back to the class of 2000. And we've used it to contemplate predictors of success—such as how people are going to perform on the boards. I've used Carole's data to refine the admissions process, incorporating what we think will translate into success in dental school based on predictive analysis."

Dr. Stacey pronounces a benediction of sorts as he leaves his association of ten years. "I think I would summarize the LLU School of Dentistry this way: It's a complex organization, it has all the elements of an educational institution, but it is also a complex business. There are lots of good people here.

The fact that we have staff that remain a long time indicates we have very good staff. We have a good faculty and we have very good students."

As his exit interview concludes, Dr. Stacey acknowledges his wonderful wife, Rosanne, the consummate third-grade teacher warmly remembered by so many Loma Linda Academy students, and the two sons and a daughter they have raised together and who have provided them ten grandchildren. With so many reasons to return to their native Australia, the Staceys depart with the appreciation of LLUSD and the expectation of some well-deserved relaxation.

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\* "Fair dinkum" is a slang term that appears to have evolved with two meanings, 'work' and 'fair play.' The 'honesty' or 'fair play' meaning is what most Australians mean by the phrase.



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## ONE HOMECOMING #2

# Alumni Student Convention No. 58

**S**chool of Dentistry alumni attended the 2018 annual LLUH One Homecoming (March 1 thru March 4) what would have been considered in years past LLUSD's 58th annual Alumni Student Convention. Preparation and implementation is already in progress for its third annual occurrence scheduled for February 28 through March 3, 2019.

One Homecoming is a work in progress that should benefit in February of 2019 from the experience that will make its third presentation the proverbial charm. A most important part of that experience has been LLUSD alumni feedback that indicates you want your alumni reunions to mix pleasure with business.

School of Dentistry alumni have been frustrated with the paucity of dental-specific continuing education at the most recent homecomings. "We've heard you loud and clear," says Kathleen Moore, director, Alumni Affairs and Continuing Education, "and we are bringing back dental-specific tracks and courses."

There is already in place for the 2019 reunion a stellar series of well credentialed, continuing education presenters (see inside back cover). A couple of examples include: Thursday and Sunday courses: one in oral pathology and another on pharmacology that are already available for online sign-up at: [dentistry.llu.edu/continuing-education](http://dentistry.llu.edu/continuing-education)

The fact that so many of you and your spouses, children, and other relatives and friends graduated from one of Loma Linda University's eight schools makes the concept of One Homecoming a great one, because the possibility of so many wonderful, simultaneous (and consequently) cost saving assemblies and reunions is optimized by a shared date and occasion. We just have to make it convenient, worthwhile, and well managed. And we're getting there.

The dentistry and dental hygiene honor classes of 1968 received medallions from LLUH President Dick Hart, MD, DrPH, with the assistance of Dean Robert Handysides, DDS'93.

*Adjacent page: 1. Mario Samaniego, SD'81, shares with Adrien Charle-Marcel, DDS'18, and Milton Vega, DDS'18; 2. Steven Morrow, DDS'60, associate dean, Advance Education, visits with Dr. Daniel Flores, DDS'82, MS'88; 3. Practic opportunity session; 4. William Heisler, DDS'59, and Sophia Yang, DDS'12, give each other pointers; 5. Tim Sherwin, MS, developent officer, visits with Ronald Zane, DDS'57; 6. Longtime pals, Karen Wells, BS'82 (DH), SM'93, and Joni Stevens, BS'69 (DH); 7. Dale Warren, DDS'62, with wife; 8. Classmates catch up (L-R, top to bottom): Ronald Neufeld, DDS'68, Butch Ehrler, DDS'68, William Holderbaum, DS'68, Gary Cornforth, DDS'68, Frank Ordelleide, DDS'68, Richard Parker, DDS'68.*



*Charles Cutting, DDS'68, addresses his classmates in the Prince Hall lobby.*









*Ronald Neufeld, DDS'68, with his wife, Nadine, addresses class members.*



*Kathleen Moore amuses Dean Handysides with straight-faced humor.*



*One Homecoming 2018 LLUSD Honor Class of 1968 assembles in Prince Hall's waiting room to exchange memories and updates.*



*Cheryl Harrison, BS'68 (DH), hugs President Richard Hart, MD, DrPH, to the enjoyment of Dean Robert Handysides, DDS'93.*



*William Holderbaum, DDS'68, is greeted by President Hart and Dean Handysides.*



**Dental Class of 1968 (back row, L-R):** Robert Tandy, Richard Parker, Gordon Rick, Michael Maxwell, Dwane Johnston, Paul Smith, Daryl Specht, Raymond Rawson, Clifford Tym, Franklin Ordeltbeide  
**Front row (L-R):** William Holderbaum, Lothar Guttschuss, Clelan Ehrler, Robert Danforth, Charles Cutting, Gary Cornforth, Norman Corbett, Ronald Neufeld



**Dental Hygiene Class of 1968 (Back row, L-R):** Candis Stoddart, Cheryl Stiles, Lorraine Ehrler, Penny Jensen, Suzanne Nelson  
**Front row (L-R):** Katherine Rossler, Sharon Richards, Marilyn Redfern, Trudy Ralstin, Sondra Moran, Cheryl Harrison



# ALUMNI STUDENT

# home

## **Thursday, February 28, 2019**

### **Scientific Sessions**

Implant Dentistry  
Operative Dentistry  
Hands-on Workshops

### **Dean's Circle Event**

To become a member, or for more information, contact Kim Labelle at the Development Office. 909-558-4754 or sdgiving@llu.edu

## **Friday, March 1, 2019**

### **Scientific Sessions**

Pediatric Dentistry  
Prosthodontics  
Endodontics  
Periodontics  
Hands-on Workshops

**60th Anniversary Celebration of the Dental Hygiene Program**

**School of Dentistry Reception**

**Practice Opportunity Networking with Students**

## **Thursday, February 28, 2019**



### **Gordon M. Rick Oral Cancer Lectureship**

### **Differential Diagnosis of Oral Mucosal Lesions: Can you tell the difference between reactive, premalignant, and cancer?**

Registration: 8:30 a.m. | Lecture: 9:00 a.m. - 4:30 p.m.

Mark Lingen, DDS, PHD, FRACPATH  
Professor, Department of Pathology  
Scientific Director, Human Tissue Resource Center  
The University of Chicago

### **Synopsis**

Approximately 10% of all dental patients have some type of oral mucosal abnormality. How do you differentiate the good, the bad, and the ugly?!? Although the majority of oral lesions do not carry significant morbidity, the clinician must be able to successfully differentiate the benign entities from more serious conditions of the region.

### **Objectives**

The purpose of this talk will be to

- review common white, red, and ulcerated lesions of the oral cavity.
- discuss the necessary techniques for performing a comprehensive oral exam.
- review the currently available adjunctive screening devices and introduce developing technologies that allow for the molecular diagnosis of premalignant lesions.
- present the new American Dental Association Clinical Guideline recommendations for oral cancer screening.
- discuss the current chemopreventive initiatives under investigation.
- emphasize the role of dental professionals in early detection and chemoprevention.



# NT CONVENTION

# E

# coming

**Sunday, March 3, 2019**



## **The Phantom of the Opera-tory**

Registration: 8:30 a.m. | Lecture: 9:00 a.m. - 4:30 p.m.

Thomas A. Viola, RPH, CCP  
Board-certified Pharmacist  
Founder of "Pharmacology Declassified"

### **Synopsis**

The challenge faced by all clinicians today is to provide safe and effective dental treatment to our medically complex patients. Thus, as dental professionals, we must be equally aware of the medical considerations of agents commonly used in the practice of dentistry, as of the dental considerations for the medications frequently prescribed to treat multiple systemic diseases.

This program will present an overview of dental pharmacology in a format that makes it applicable, practical, and useful for all members of the team. Using case scenarios, special emphasis will be given to drugs administered or prescribed in dental practice, as well as to medications whose actions, effects, or interactions with other drugs may impact dental therapy.

### **Objectives**

Upon successful completion of this program, participants will be able to

- describe the pharmacology of analgesics and appropriate prescribing practices for the management of acute dental pain.
- discuss local anesthetic agents with respect to their mechanism of action, adverse effects, and contraindications.
- examine the pharmacology of anti-infective agents commonly used in dentistry and their clinical considerations.
- discuss the prescription medications most frequently encountered on a patient's medical history, including their potential impact on dental therapy and patient care planning.

### **Testimonials**

*"This is by far the BEST presentation I've been to in 30 years of practice! I didn't want it to end! Really!!!"*

R.L., Hinman Dental Meeting

*"Thank you for making me laugh AND learn! Only you could make pharmacology THIS enjoyable and useful!"*

D.H., Greater New York Dental Meeting

*"So much practical information! So many, many laughs! You held my attention every second! I'm blown away!"*

M.B., Yankee Dental Congress

*To register call LLUSD Continuing Education at (909) 558-4685 or visit [dentistry.llu.edu](http://dentistry.llu.edu)*

# *Fostering student research in the LLUSD curriculum that aligns with strategic plans to advance 21st century dental education*

**So Ran Kwon, Abhishek Batra, Trina Kindred, Kayla Perez-Ortiz, Min Wang, Euni Cho, Udochukwu Oyoyo**

## **INTRODUCTION**

Loma Linda University School of Dentistry educates and inspires oral healthcare professionals to combine clinical excellence with Christian values that encourage whole person patient care consistent with the School's motto, "Service is our calling." The School's administration currently is focused on providing an academic and clinical curriculum that anticipates shifting requirements for the delivery of optimal oral healthcare to a growing, diverse,

21st century patient population.<sup>1</sup> An overhaul upgrade of the LLUSD curriculum coincides with the call by many dentistry leaders for new dental education strategies that will improve the ability of dental and allied dental educational institutions

to address long-range challenges related to finances, education, scholarship, diversity, and changing treatment trends.<sup>2</sup> The urgency of implementing related curriculum initiatives is addressed in six executive summaries included in the "Advancing Dental Education in the 21st Century" project. Its executive summary on what oral health professionals should know in 2040 emphasizes the fact that future oral health professionals (OHP) will need to be culturally sensitive in their care for a more diverse population. The treatment of older patients with comprehensive medical and dental needs, along with a relatively healthy younger cohort who will require minimally invasive treatments, demonstrates some of the diversity. Furthermore, OHPs increasingly will be

providing patient-centered care as employees in large group practices, healthcare settings, and safety net clinics that will require more medical knowledge and skills to communicate and collaborate as an inter-professional team member.<sup>3</sup> Clearly, preparing LLUSD students to meet the scientific, professional, and social-political challenges that will confront them is the profound responsibility of emerging curriculum change.

*Dental research aligns with our mission by enabling the pursuit of wholeness that is a key component of our calling.*

As a science-driven health profession, dentistry has a longstanding, core commitment to research innovation and scholarship.<sup>4,5</sup> The Commission on Dental Accreditation (CODA) standards outlines the expectation for research in Standard 6: "Dental education pro-

grams must provide opportunities, encourage, and support student participation in research and other scholarly activities mentored by faculty."<sup>6</sup> Based on accumulating research, rapid changes in the health care environment have included a marked shift from disease management to a focus on disease prevention and health promotion.<sup>7</sup> This shift also exposes new research opportunities in emerging scientific fields such as big data analytics, stem cell biology, tissue engineering, advanced biomimetics, and personalized tele-dentistry that are revising the delivery of dental care.<sup>8</sup> With the changing scientific and health care landscape, the executive summary on oral health research and scholarship urged dental schools to redefine their research and educational priorities emphasizing a sustainable research-oriented curriculum that graduates dentists who can function effectively in a collaborative healthcare environment.<sup>7</sup>

*The authors thank Dr. Robert Handysides, dean of LLUSD and Dr. Yiming Li, associate dean, Research, for reviewing the manuscript and providing valuable feedback. The study was funded by the Loma Linda University School of Dentistry, Student Research Program Fund. This study was presented in part at the 2017 California Dental Association Annual Meeting in Anaheim, where it won an award in the Student Research Table Clinics Competition.*

Scientific research is the foundation of evidence-based dentistry. It drives health profession education and practices that pave the way for evidence-based decision-making.<sup>9</sup> LLUSD has always been a vanguard in promoting

student research opportunities. This is exemplified by successful competitions of the School's dental (DDS) students and dental hygiene (DNHY) students since the inception of student research competitions among dental schools sponsored by the American Dental Association (beginning in 1959) and the California Dental Association (beginning in 1989). Historically, all DDS and DNHY students were required to complete a research project before graduation during their third year and senior year, respectively. This requirement is supported by studies showing that research not only develops critical thinking but helps students integrate theory and practice, enhances the ability to analyze data independently, and augments professional self-confidence.<sup>10,11,12</sup>

A notable transition in the LLUSD curriculum occurred in 2015, when the DDS student research projects changed from mandatory to elective. Although DDS students are still exposed to didactic research design and biostatistics, they are not required to complete a science-based experimental project. Given the transition from mandatory research participation to optional, this study was initiated to analyze comprehensively the perception of LLUSD students and faculty toward research in dental education. Its specific aim was to provide direction for strategic plans to promote student research in the LLUSD curriculum. Our null hypothesis was that there would be no difference in the perception toward research in dental education among three LLUSD cohorts: DDS students, DNHY students, and faculty.

## MATERIALS AND METHODS

The study was initiated in the fall quarter of 2016 as a student research project that was partial fulfillment of an elective course (DNES 806 Lab). A team of students and faculty mentors developed a survey regarding "the perspectives of dental students and faculty on the value of performing research as part of the dental curriculum." The study was determined to be exempt from oversight by the Institutional Review Board at Loma Linda University (#5160424). Nevertheless, the survey was reviewed by the office of educational assessment and

approved for distribution to LLUSD students and full-time faculty.

The survey consisted of 10 closed-ended questions that included respondents' demographics, perspectives toward science/research in dentistry, motivation and barriers for pursuing research, and the possibility participants would pursue research—even if the School did not mandate it. Responses were limited to a 5-point Likert scale with 1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, and 5 = strongly agree.

The survey was administered to a total of 572 LLUSD students (N=379 for DDS 2017-2010; N=72 for DNHY 2018-2019) and full-time faculty (N=121). The first distribution of the survey was emailed in January 2017 via Qualtrics software. The second distribution of the survey was via hard copies in March 2018. All data were compiled and descriptive statistics were submitted to Chi-Square testing and analysis of data with SAS V 9.4.

## RESULTS

There were a total of 309 responses with an overall response rate of 54.0%, after removing duplicate responses. The response rate was highest for DNHY students (98.6%) followed by DDS students (54.6%), and faculty (25.6%). Of the 309 subjects, DDS students accounted for 67%, DNHY students 23%, and faculty 10% of all respondents (Figure 1).

A chi-square test of independence was performed to examine the relationship between education category (DNHY students, DDS students, and faculty) and perspectives toward science and research in dentistry. A

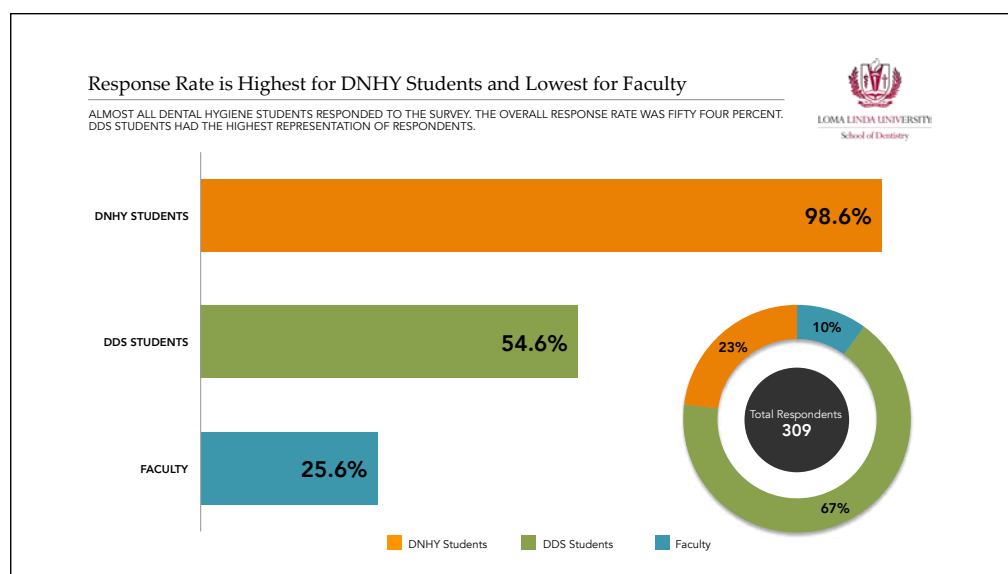


Figure 1. Response rate and overall representation of respondents to survey by participant category



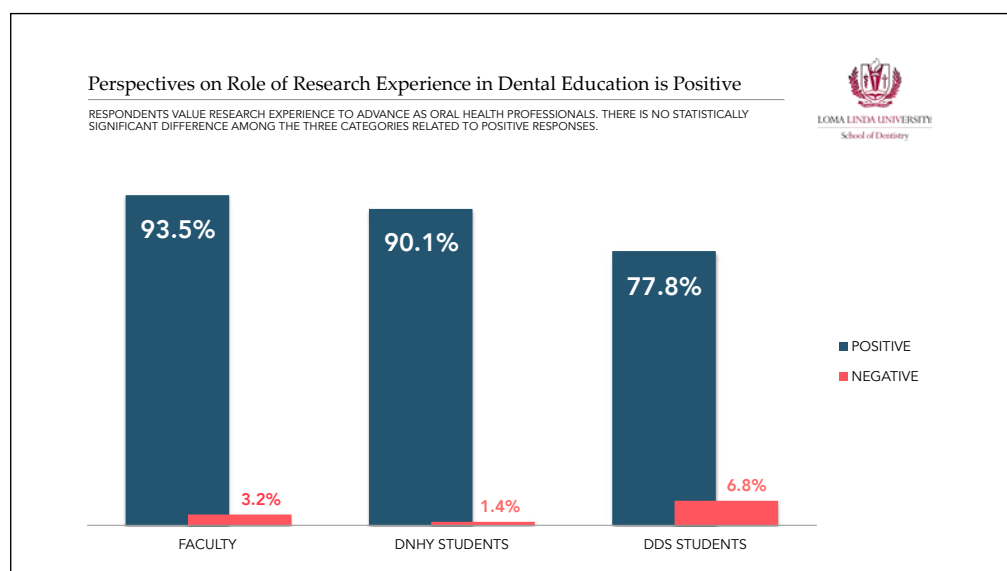


Figure 2. Percentage of respondents by category who value research experience to advance as oral health care professionals

5-point Likert scale was used for responses to perspectives; however for data analysis and interpretation “agree” and “strongly agree” responses were collapsed into an “agree” category as were the “disagree” and “strongly disagree” categories. The relationship between education categories and each of the variables on the survey was significant, with the exception of “Research experience will help enhance dental training and advance as a dental healthcare practitioner.” Although DDS students were less likely (77.8%) than DNHY (90.1%) or faculty (93.5%) to agree with the statement, the difference was not statistically significant ( $\chi^2 = 9.17$ ,  $df=4$ ,  $p=0.057$ ) (Figure 2).

The percentage of DDS students who agreed with the statement “Learning about research and methods is important in dental education” was 0.79 whereas the percentage from DNHY was 0.93, and the percentage from faculty was 0.90. The difference in percentages among the respondents was statistically significant ( $\chi^2 = 14.46$ ,  $df=4$ ,  $p=0.006$ ), but not for the difference between DNHY and faculty ( $p > 0.05$ ). The percentage of students who agreed with the statement “Dental treatment methods need to be scientifically supported by research studies”

was 0.56 for dental students and 0.99 for DNHY students, while the percentage of agreement from faculty was 0.45. The difference in percentages among them was statistically significant ( $\chi^2 = 49.64$ ,  $df=4$ ,  $p < 0.001$ ), but not significant for the difference between DDS students and faculty ( $p > 0.05$ ).

The percentage of faculty who agreed with the statement “There is a correlation between research experience and a clinician’s clinical ability” was highest at 0.77, while the percentage from DDS students was lowest at 0.45. The percentage for DNHY students was 0.62. The difference in percentages among the groups was statistically significant ( $\chi^2 = 18.09$ ,  $df=4$ ,  $p = 0.001$ ), while not for the difference between DNHY students and faculty ( $p > 0.05$ ) (Figure 3).

The motivation for pursuing research was assessed with the following question on the survey: “What is your main reasoning to pursue research during dental school?” Overall “interest in the field” and “to become a life-long learner” were the strongest motivations, accounting for 35.5% and 34.6%, respectively. Barriers to pursuing research were assessed with the following question: “If an elective research design lab course was offered, what would be the

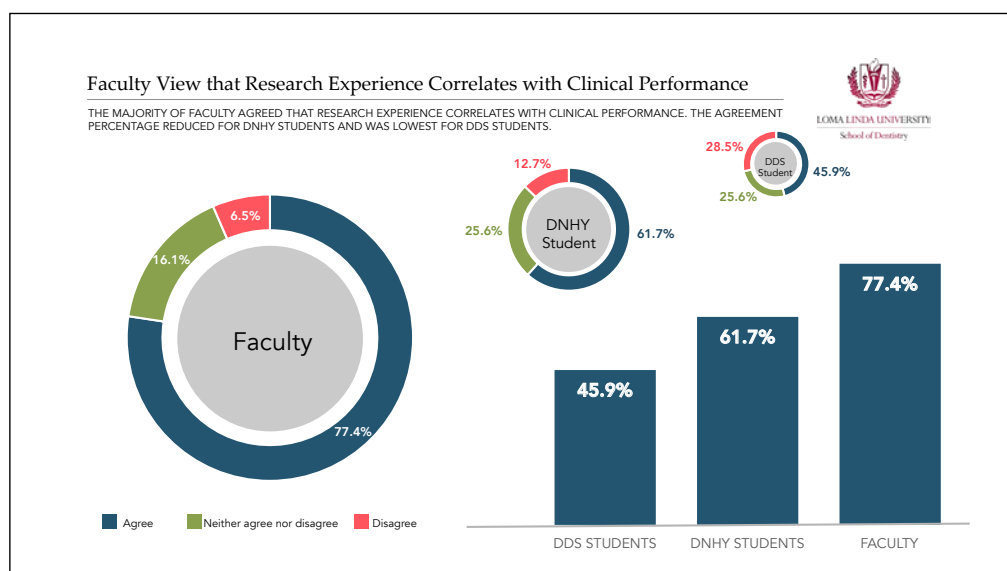


Figure 3. Percentage of respondents by category who agree that research experience correlates with clinical performance

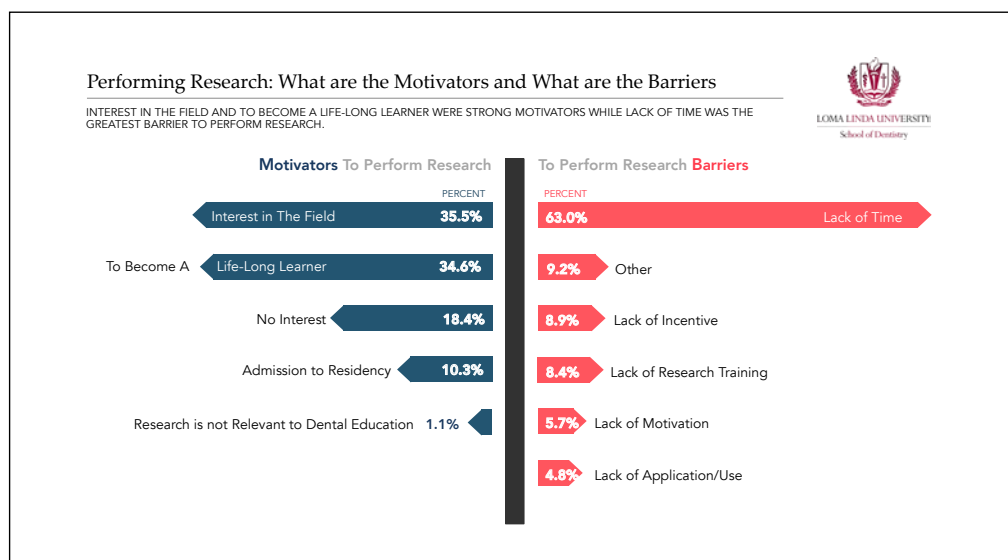


Figure 4. Motivators and barriers to performing research

main reason for you not to take it?" "Lack of time," scoring 63%, was chosen as the greatest barrier to participating in an elective research design lab course (Figure 4).

The percentage of DDS students who agreed with the statement "A mandatory research project should be part of the dental school curriculum" was 0.18, whereas the percentage from DNHY students was 0.61, and the percentage of agreement from faculty was 0.74. The difference in percentages among the responding categories was statistically significant ( $\chi^2 = 79.69$ ,  $df=4$ ,  $p < 0.001$ ), but not for the difference between DNHY students and faculty ( $p > 0.05$ ). The percentage of DDS students who responded with "Yes" to the question "Would you still pursue research even if it was not mandated by the School" was 0.15, whereas the percentage from DNHY students was 0.18, and the percentage from faculty was 0.57. The difference in percentages between LLUSD students and their faculty was statistically significant ( $\chi^2 = 30.33$ ,  $df=4$ ,  $p < 0.001$ ), while the difference between DDS and DNHY students was not ( $p > 0.05$ ) (Figure 5).

## DISCUSSION AND CONCLUSION

The Student Research Program at LLUSD is consistent with and supportive of the University's mission, "to make man whole." Utilizing integrative teaching,

research, and service, the program aims to 1) instill critical thinking through research experience; 2) foster collaboration between students and faculty mentors that encourages students to become involved in the design, conduct, and reporting of research; 3) encourage students to consider academic dentistry and research as future career options. It is a challenge to assess how much critical thinking is acquired through the performance of a research project. The critical thinker raises questions and problems, formulates them clearly

and precisely, gathers and assesses relevant information, comes to well-reasoned conclusions, tests them against relevant benchmarks, thinks open-mindedly about alternative systems of thought or perspectives, and communicates effectively with others in determining solutions to complex problems.<sup>13</sup> All of these traits are required and taught during the research planning phase and reinforced during the actual experiment and interpretation of results through a process of active inquiry and self-directed learning. There also is no doubt that the Student Research Program has established important student-faculty relationships through the mentoring process. The establishment of a faculty development program in conjunction with the Student Research Program would open avenues to involve more mentors and benefit both students

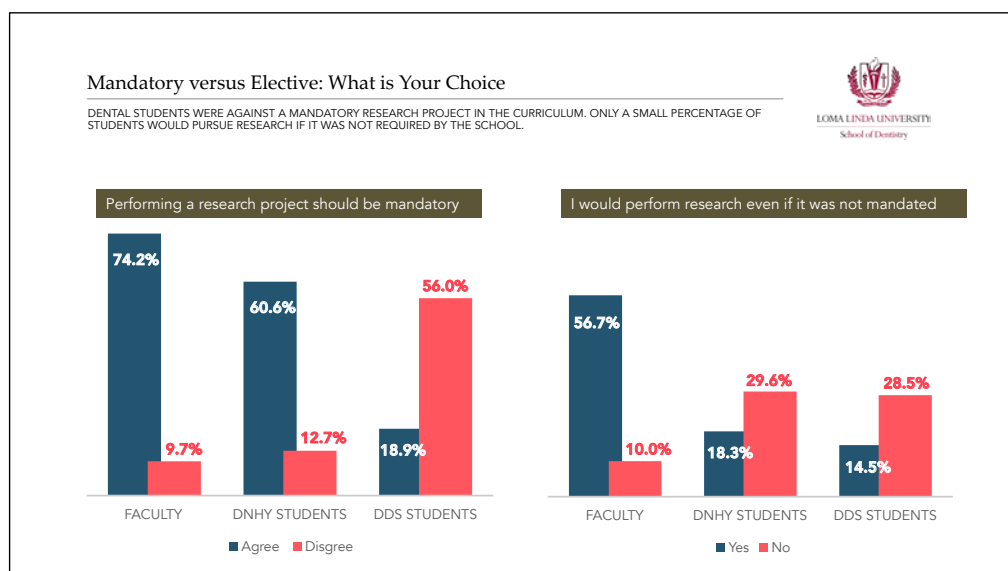


Figure 5. Perception of respondents by category on whether a research project should be mandated, and if they would perform research even if not mandated

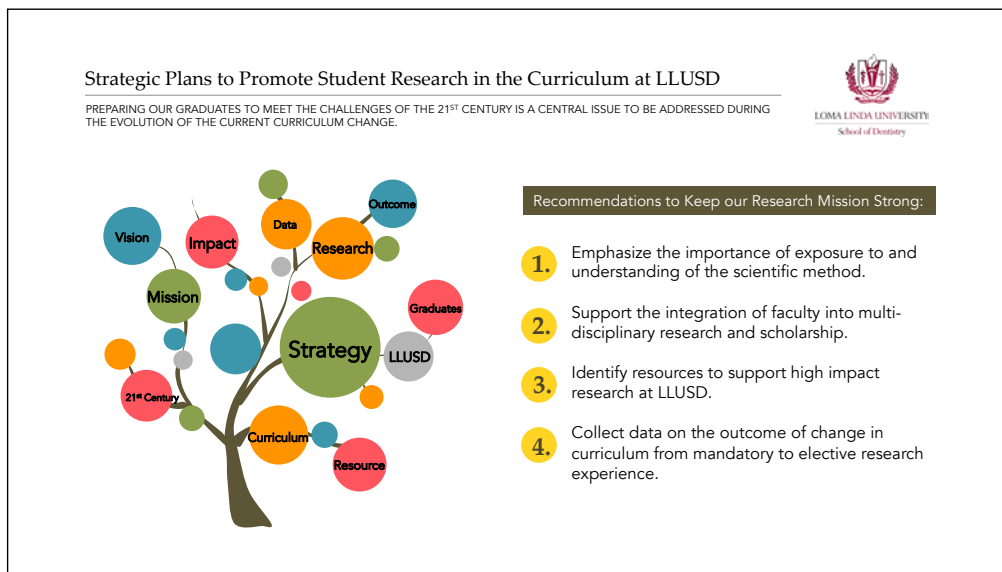


Figure 6. Recommendations to promote student research in the curriculum and keep our research mission strong.

and faculty, and ultimately LLUSD. There have also been several Student Research Program alumni expressing a strong desire to return to academia after managing their loans. This is noteworthy, because it is increasingly difficult to recruit faculty who meet 21<sup>st</sup> century dental education requirements. Through research poster competitions, the program has provided an opportunity for LLUSD student researchers to achieve regional and national exposure for their contributions to the oral healthcare science. The Student Research Program participants annually share their activities at the LLU One Homecoming, which enables their contributions to benefit the wider Loma Linda University community.

The purpose of this study was to perform a comprehensive analysis on the perception of LLUSD students and faculty regarding the importance of research in dental education. The results showed that generally there is a positive perception toward research in dental education among LLUSD students and faculty. However, there was significant variance in perception across the three cohorts: DNHY students, DDS students, and faculty. Consequently, our null hypothesis was rejected. The results of our study partly confirms (and partly contradicts) a study that was performed by members of the National Student Research Group (NSRG) Board of Directors in collaboration with the American Student Dental Association (ASDA). A survey that was distributed to the students of sixty accredited dental schools in the United States<sup>14</sup> found that respondents overall were supportive of research in dental education, which is consistent with the results of the LLUSD study. However, while LLUSD DNHY students almost unanimously agreed that dental treatment methods need to be supported by research studies, the

agreement percentage was much lower for LLUSD DDS students and LLUSD faculty. The response among LLUSD DDS students was not consistent with dental student responses tabulated by the NSRG/ASDA survey, which indicated that most students supported research in dental education. The extent of the inconsistency may be attributed to a response bias artifact suggested by the difference in response rates: the LLUSD study response rate was relatively high (54.0%), while the national survey response rate of 3.9% was too low to make any

generalization. The most common single barrier to research involvement in our study was "lack of time," a response mirrored by the NSRG/ASDA survey.

The transition in the LLUSD curriculum from mandatory dental student performance of a research project to an elective option was based on several factors. However, a shortage of available mentors for a class of 100 students (approximately 33 research teams) was considered the primary cause. This is not surprising, considering the limited time students and mentors are given to perform a research project. Given the many advantages for students of dental research, Harvard School of Dental Medicine (HSDM) still integrates research into its curriculum and requires research experience. In a retrospective study, HSDM examined the impact that research had on its graduates. The study found that compulsory research requirements motivated students to exceed the requirements by presenting their research outside the local community and publishing their work in peer-reviewed journals thereby contributing to science in a broader way.<sup>12</sup> It is noteworthy that 48% of HSDM graduates indicated they would pursue research if not mandated by the school. In our study, despite the positive perspectives toward research experience in dental education, only 15% of DDS students and 18% of DNHY students indicated they would pursue unrequired research.

The integration of research components into the predoctoral dental curriculum and the creation of a culture of evidence-based practice is necessary for dentistry to remain a scientifically driven health profession.<sup>11,15</sup> Therefore, thoughtful planning to promote the Student Research Program in LLUSD's curriculum and facilitate



opportunities for its students to perform research is crucial to anticipating the requirements of 21st century dentistry. Several curriculum recommendations (Figure 6) have been outlined to strengthen and promote student research in the School's important mission:

1. Emphasize the importance of exposure to, and understanding of, the scientific method for the benefit of our students and their future patient populations because research aligns with our mission by enabling the pursuit of wholeness that is a key component of our calling.
2. Support the integration of faculty into multi-disciplinary research and scholarship as they are on the frontlines of educating our students. Encourage a high-quality and rigorous faculty development program to foster more diverse research mentors that includes appropriate mentor incentives.
3. Identify resources and topics for high impact research at LLUSD. There are funding sources available, and efforts should be made to apply across the board to extramural funding from federal agencies and industry foundations.
4. Collect data on the outcome of changes in curriculum from mandatory to elective research experience for DDS students. Additionally, compare and contrast the educational strategies between DDS students (elective) and DNHY students (mandatory).

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# Fostering student research—the quiz

Circle the letters of the correct answers.

- Challenges that oral health professionals in 2040 should be able to understand and address include
  - the need for cultural sensitivity in the care of diverse patients.
  - the knowledge and skills to communicate and collaborate as an inter-professional team member.
  - scientific, professional, and social-political challenges.
  - all of the above.
- Rapid changes in the healthcare environment have included a marked shift
  - from disease prevention to disease management.
  - from disease management to disease prevention and health promotion.
  - from comprehensive disease management to a focus on local tooth restoration.
  - to none of the above.
- The survey administered for the study included
  - open-ended questions.
  - true and false, dichotomous responses.
  - responses limited to a 5-point Likert scale.
  - none of the above.
- The survey was administered to 572 LLUSD students and faculty. The response rate
  - was highest for dental hygiene students.
  - was highest for dental students.
  - was highest for faculty members.
  - was the same for all three categories.
- How did the study's respondents react to the statement, "There is a correlation between research experience and a clinician's clinical ability?"
  - There was no statistically significant difference among the three groups ( $p > 0.05$ ).
  - The percentage of dental hygiene students who agreed with the statement was highest at 77%.
  - There was no statistically significant difference between the faculty and dental students ( $p > 0.05$ ).
  - None of the above.
- The Student Research Program at LLUSD strives to
  - instill critical thinking through research experience.
  - foster collaboration between students and faculty.
  - encourage students to consider academic dentistry and research as career options.
  - accomplish all of the above.
- A critical thinker
  - raises questions and problems, formulates them clearly and precisely.
  - thinks open-mindedly about alternative systems of thought or perspectives
  - communicates effectively with others in determining solutions to complex problems.
  - exhibits all of the above.
- The most common single barrier to research involvement is
  - lack of funding.
  - lack of time.
  - lack of equipment.
  - all of the above.
- Despite their positive perspectives toward research experience in dental education,
  - less than 20% of the responding dental and dental hygiene students would pursue unrequired research.
  - more than 20% of the responding dental and dental hygiene students would pursue unrequired research.
  - more than 40% of the responding dental and dental hygiene students would pursue unrequired research.
  - none of the students would pursue unrequired research.
- Strategic plans to promote the student research curriculum at LLUSD include
  - promoting the importance of the scientific method for the benefit of our students and their future patients.
  - integrating faculty into multi-disciplinary research and scholarship.
  - identifying resources and topics for high impact research.
  - all of the above.

Name \_\_\_\_\_ DDS/DH Lic.# \_\_\_\_\_

Date \_\_\_\_\_ Mailing address \_\_\_\_\_ / \_\_\_\_\_ / \_\_\_\_\_

Phone \_\_\_\_\_ Street City State Zip code

**After answering the questions and completing this form, mail the entire sheet (or copy) to:**

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

For questions please call: (909) 558-4685

Cost \$25.<sup>00</sup> Please circle: MASTERCARD VISA DISCOVER Credit Card No: \_\_\_\_\_

Expiration date \_\_\_\_\_ CVS No: \_\_\_\_\_

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



LOMA LINDA UNIVERSITY

School of Dentistry

## ***Dental Unit Waterline Testing and Sterilization Assurance Service***

### ***Dental Unit Waterline (DUWL) Testing Service***

has been in operation since 2000. We evaluate microbial contamination of DUWLs and are actively involved in research on DUWL biofilm removal and treatment methods. Over 800 dental offices, a number of universities, Veterans hospitals, medical/dental centers, and other agencies nationwide use this service for monitoring the quality of their DUWLs.

### **What are the advantages of using LLU School of Dentistry's DUWL service?**

- The Standard Method 9215 D (membrane filter method) of American Public Health Association (APHA) is used to examine microbial contamination in DUWLs.
- Multiple dilutions to detect heterotrophic plate count (HPC) bacteria counts up to 20,000 CFU/mL
- More than 18 years' experience
- Free consultations by experienced staff
- All-inclusive test kit containing sterile sample vials, ice packs, and detailed instructions in insulated test packages
- Test reports sent after the seven-day incubation
- Local customers may deliver samples directly to our research laboratory.

### ***Sterilization Assurance Service (SAS)***

was established in 1998 and provides biological monitoring of sterilizers for over a thousand dental clinics, community colleges, and medical/dental centers and other institutions in more than 30 states.

### **What are some of the advantages of using LLU School of Dentistry's SAS?**

- 20 years of experience
- Choice of Basic, BasicPlus, and Intensive spore testing services to help you meet infection control requirements within your budget
- Return envelopes or prepaid envelopes are included based on your choice.
- Option of weekly or monthly reports with available Certificate of Participation
- Failure notification by phone or e-mail on same business day
- Class V integrators for steam sterilizer is available to order. The combined use of spore test and STEAMPlus Integrators provide early detection by visually confirming the performance of your sterilizers.
- Online test results will be available soon.



## 2018 LLUSD Student Researchers win

During LLU's 2018 One Homecoming on March 1st and 2nd, nine senior dental hygiene groups, seven third-year dental student groups, one fourth-year dental student group, and nine faculty and graduate students displayed at the Drayson Center a combined 26 poster presentations of their scientific research for review by the public and by School of Dentistry faculty judges.

Four faculty judges—Euni Cho, DDS'95, assistant professor, Dental Education Services; Ms. Shelly Withers, BS'00 (DH), MS, associate professor, Department of Dental Hygiene; Ahmed Khocht, DDS, MSD, professor, Department of Periodontics; and Yiming Li—DDS, MSD, PhD, associate dean, Research selected winners in three categories from among 19 dental student research poster winners (see box) who attended the California Dental Association meeting in Anaheim on May 18 to compete against student research presenters from California's six other dental schools.

Three faculty judges—Jeong Suk Kim, DDS, MSD, PhD, assistant professor, Division of General Dentistry; Zhe Zhong, DDS, PhD, assistant professor, Dental Education Services; and Ronald Forde, DDS'83, assistant professor, Division of General Dentistry—selected winners in two categories from the 36 dental hygiene student research poster winners (adjacent pages) who attended the California Dental Hygiene Association meeting

in Anaheim on May 18 to compete against student research presenters from California's other dental hygiene programs.

Krystal Park, D3, was honored (see page 52) with the Sirona Award bestowed on the individual selected to represent LLUSD at the 2019 ADA/Dentsply Sirona Student Clinician Research Program in Vancouver, Canada.

So Ran Kwon, DDS, MS, PhD, MS, director, Student Research, said the poster competition represented a great opportunity for the junior dental hygiene and second year dental students to interact with presenters and mentors on potential research topics and provided a heads-up on what to expect next year for their research design class.

During their two days, the poster sessions were attended by 240 observers. "We had a lot of positive feedback on the quality of research performed by our students," said Dr. Kwon, and "I want to congratulate all of our student researchers and mentors on their wonderful achievements."

Student research poster presentations demonstrate the heuristic benefits of academic competition and reinforce the importance of evidence based dentistry.



*Dr. So Ran Kwon*



*2018 Department of Dental Hygiene poster session participants*

**STUDENT POSTER PRESENTATION AWARDS—Dental Hygiene, Thursday March 1, 2018,**



**Dental Hygiene, Clinical Category, 1st Place**

*Taylor Bray, Taylor Gustavsson, Alyssa Wasylucha,  
Bonnie Smith (not shown)*

**“Comparison of Residual Bacterial Contamination on  
Different Types of Operatory Keyboards”**

*Mentors: Mr. Raydolfo Aprecio, Ms. Patricia Lennan, Mr.  
Udochukwu Oyoyo, Ms. Debra Zawistowski*



**Dental Hygiene, Clinical Category, 1st Place**

*Brett McKean, Justin Sung, Rachelle Andra, Tery Lopez,  
Mohammed Shaikh*

**“Unveiling the Power of Charcoal Containing Toothpastes”**

*Mentors: Mr. Udochukwu Oyoyo, Dr. So Ran Kwon*



**Dental Hygiene, Clinical Category, 3rd Place**

*Emily Thornton, Alaine Miller, Sierra Wille,  
Sarah Masacek (not shown)*

**“The Effect of Noise Level on Blood Pressure Readings”**

*Mentor: Ms. Darlene Armstrong*



**Dental Hygiene, Clinical Category, Honorary Mention**

*Aileen Alegre, Regina Pugarad, Alaa Moussaoui, Cynthia Kakish*

**“Effectiveness of Non-waxed Dental Floss vs. Dental  
Water Flosser in Removing Interproximal Plaque”**

*Mentors: Mr. Udochukwu Oyoyo, Ms. Shirley Lee*



**STUDENT POSTER PRESENTATION AWARDS—Dental Hygiene, Thursday March 1, 2018 (cont.)****Dental Hygiene, Clinical Category, Honorary Mention**

*Mitra Nikpour, Neda Kakvand, Vanessa Silver, Lovelyjoy Tan*

**“Home Remedy Tooth Whitening”**

*Mentors: Ms. Shelly Withers, Mr. Udochukwu Oyoyo,  
Dr. So Ran Kwon*

**Dental Hygiene, Community Category, 1st place**

*Lauren White, Brianna Melgar, Taylor Ewert, Hailey Hofmann*

**“Patient Perception of Fluoride Education and Use”**

*Mentor: Ms. Shelly Withers*

**Dental Hygiene, Community Category, 2nd Place**

*Nicole Mack, Ashton Izydorek, Alexis Lemmon, Guada Lund*

**“Collaboration of Dentistry and Medicine within the Oral Health Curriculum”**

*Mentors: Ms. Kristi Marshall, Mr. Udochukwu Oyoyo*

**Dental Hygiene, Community Category, 3rd Place**

*Lorena Perez, Veronica Gallardo, Katrina Awad*

**“The Use of Glucometers as a Screening Tool in the Dental Clinic”**

*Mentors: Ms. Shelly Withers, Ms. Shelley Hayton*





### Dental Hygiene, Community Category, Honorary Mention

*Emma Tello, Stacy Sidabutar,  
Deanna Sweiss and Cynthia Uribe (not shown)*

### "The Impact of Service Learning on Dental Professionals"

*Mentors: Mr. Udochukwu Oyoyo, Ms. Larysa Baydala*



*The dental hygiene poster judges—Drs. Jeong Suk Kim, Zhe Zhong, and Ronald Forde—appear friendly.*



*Drs. Kim Zhong and Forde, listen as a dental hygiene contestant makes her case. Taking it in starting at Dr. Forde's left shoulder are (left to right) Samantha De Guia, DH2, and graduating class of 2018 dental hygiene students Aileen Alegre, Regina Pugrad, and Cynthia Kakish.*



## STUDENT POSTER PRESENTATION AWARDS—Dentistry, Friday March 2, 2018



*Above: Participants in the dental poster competition—students, mentors, and judges*

*Below: Students and judges assess the presentation of posters by student research contestants.*



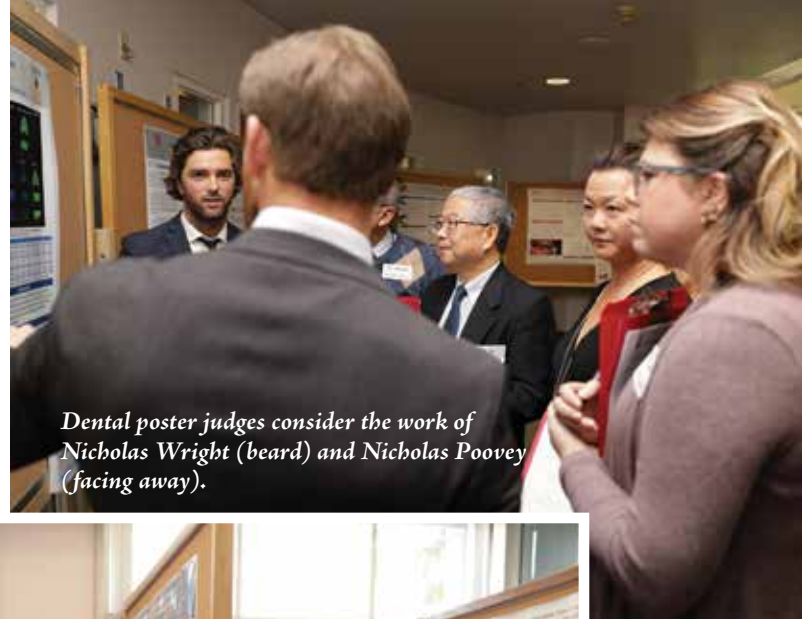
*Dentistry poster judges (L-R): Dr. Yiming Li, Dr. Ahmed Khojbt, Ms. Shelly Withers, and Dr. Eun Cho*







*On-the-spot learning with poster competition judge Dr. Yiming Li at the research poster of Michael Chan.*



*Dental poster judges consider the work of Nicholas Wright (beard) and Nicholas Poovey (facing away).*



*Dean Robert Handsides, stands (2nd from left) with members of the CDR team (L-R): Mr. Udo Oyoyo, Dr. Yiming Li, Dr. Montry Suprono, Dr. Min Wang (visiting scholar from China), and (seated) Ms. Alaina Piper (lab assistant) and Dr. So Ran Kwon.*



*Student research poster presentations demonstrate the heuristic benefits of academic competition and reinforce the importance of evidence-based dentistry.*



**STUDENT POSTER PRESENTATION AWARDS—Dentistry, Friday March 2, 2018****Dentistry, Clinical Category, 1st Place***Trent Gillard, Alexander Zaykov***“Effect of Disinfection on Two Elastomeric Impression Materials over Time”***Mentors: Mr. Udochukwu Oyoyo, Dr. Montry Suprono***Dentistry, Clinical Category, 2nd Place***Anna Chavez, Kristen Schwieterman, Claudie Pascal, Jenifer Jesson***“Evaluation of Surface Roughness after Brushing with Charcoal-Containing Dentifrices”***Mentors: Dr. Min Wang,<sup>1</sup> Mr. Udochukwu Oyoyo, Dr. Christopher Perry,<sup>2</sup> Dr. So Ran Kwon***Dentistry, Clinical Category, 3rd Place***Nicholas Wright, Nicholas Poovey***“Precision of Implant Placement with 3D Printed Guides among Novice Clinicians”***Mentors: Dr. Heidi Kohltfarber, Dr. Erik Sahl, Dr. Yvette Carrillo,<sup>3</sup> Dr. Sompop Bencharit<sup>4</sup>***Dentistry, Scientific Research Category, 1st Place***Krystal Park, Sarah Lee***“Possible Volumetric Changes in the Airways after Orthodontic Treatment with Extractions”***Mentors: Dr. Carolina Souza,<sup>5</sup> Dr. Gina Roque-Torres, Dr. Rodrigo Viecilli*

1. Department of Endodontics, School & Hospital of Stomatology, Wenzhou Medical University, Wenzhou, China; 2. Assistant professor, basic sciences, Division of Biochemistry, Loma Linda University School of Medicine; 3. Graduate student in periodontics; 4. Associate professor, Virginia Commonwealth University, Richmond, Virginia; 5. Visiting clinician from Brazil.



**Dentistry, Scientific Research Category, 2nd Place**

*Christina Chi*

**“Effect of UV Light Activation on Oxidation Potential of Titanium-oxide Nanofibers Compared to Nanoparticles”**

*Mentors: Dr. Min Wang,<sup>1</sup> Mr. Elvin Walemba,<sup>2</sup> Mr. Udochukwu Oyoyo, Dr. Christopher Perry,<sup>3</sup> Dr. So Ran Kwon*



**Dentistry, Community Category, 1st Place**

*Phillip Ha, Nadia Barakat, Chanica Veranunt*

**“Ten-Year Retrospective Review of Pulpotomies and Indirect Pulp Capping in Primary Teeth”**

*Mentor: Dr. Jung-Wei Chen*



**Dentistry, Community Category, 2nd Place**

*Eunice Jong, Kristina Fernandez*

**“Trends in Patient Presentation with Implant Failure to the Emergency Department between 2008 and 2014”**

*Mentors: Mr. Udochukwu Oyoyo, Dr. So Ran Kwon*



**Dentistry, Community Category, 3rd Place**

*Michael Chan*

**“The Effects of Different Clinical Curriculum Models on the Quantity of Clinical Experiences”**

*Mentor: Dr. John Won*

1. Department of Endodontics, School & Hospital of Stomatology, Wenzhou Medical University, Wenzhou, China; 2. PhD candidate, Loma Linda University School of Medicine; 3. Assistant professor, basic sciences, Division of Biochemistry, Loma Linda University School of Medicine

## LLU/LLUSD well represented at AADR

Loma Linda University oral healthcare academicians, researchers, and clinicians were significantly represented at the 47th annual meeting of the American Association of Dental Research held (in conjunction with the 42nd annual meeting of the CADR) in Fort Lauderdale, Florida, at the Greater Fort Lauderdale/Broward County Convention Center, March 22-24, 2018.

LLU personnel were the sole or predominant authors (30 altogether) of a dozen posters for ten of which they made the oral presentations—25 of them School of Dentistry personnel or students (see adjacent page).

Beyond their poster involvement, two School of Dentistry faculty members gave oral presentations—a keynote address by So Ran Kwon, DDS, MS, PhD, MS, director, Student Research, for “Mechanisms of Tooth Whitening,” and an oral presentation by Jung-Wei Chen, DDS, MS, PhD, program director, Advanced Specialty Education Program in Pediatric Dentistry, for “Microbial activity among Infants with or

without using PNAM appliance,” supported by her co-authors Hanieh Hassani, DDS’15 (IDP), instructor, Department of Pediatric Dentistry, William Hamra, MD, assistant professor, School of Medicine, and Wu Zhang, MD, director, Research Services, Center for Dental Research.

Most notably, Yiming Li, DDS, PhD, MSD, associate dean, Research, was honored for his 12 years as chair for Working Group 7.60 (on Whitening Agents: ANSI/ADA Standard No. 136 for Products for External Tooth Bleaching) of the ADA Standards Committee on Dental Products. The actual standards development occurs in the committee’s nine subcommittees and 65 working groups that address specific topics and provide an opportunity for all interests to participate in the development of voluntary consensus standards. Dr. Li was presented with a plaque of appreciation by the incoming Working Group 7.60 chair, Dr. So Ran Kwon.



*Dr. Yiming Li holds his plaque of appreciation as he sits with members of the ADA Standards Committee on Dental Products.*



# AADR 2018 LLUSD Poster and Oral Presenters

## POSTERS and AUTHORS

### Effect of Dietary Calcium Deficiency on Craniofacial Bone in Mice

Zhe Zhong, DDS, PhD (**Presenter**), LLUSD  
 Gina Roque Torres, DDS, MsC, PhD LLUSD  
 Roberto Savignano, PhD, University of Pisa  
 Wu Zhang, MD, LLUSD  
 Yiming Li, DDS, PhD, MSD, LLUSD

### Oro dental Phenotype and Genotype Findings in 5 Chinese Children with Hypophosphatasia

Jimei Su, BDS, MS (**Presenter**), The Children's Hospital Zhejiang University School of Medicine  
 Xiaowei Ye, BDS, The Children's Hospital Zhejiang University School of Medicine  
 Jung-Wei Chen, DDS, MS, PhD, MS, LLUSD

### Efficacy of Stabilized Chlorine Dioxide-based Mouthrinse in Reducing Oral Malodor

Sean Lee, DDS (**Presenter**), LLLUSD  
 Joni Stephens, BS'69 (DH), EdS, MS, LLUSD  
 Montry Suprono, DDS'07, MSD, LLUSD  
 Shelly Withers, BS'00 (DH), MS, LLUSD  
 Yiming Li, DDS, PhD, MSD, LLUSD

### Amalgam Shear Strength under Submerged Condensation Conditions

Rodrigo Robles Cardenas (**Presenter**), LLUSD, DDS, class of 2018  
 Brian Choi, LLUSD, DDS class of 2018  
 Jae Chung, LLUSD, DDS class of 2018  
 Reza Parhizkar, LLUSD, DDS class of 2018  
 Anthony Pham, LLUSD, DDS class of 2018  
 Udochukwu Oyoyo, MPH, PhD candidate, LLUSD  
 Clyde Roggenkamp, DDS'70, LLUSD

### Oxidation of Blue Dye with Hydrogen Peroxide as a Function of pH

Sherri Chyi, BS (**Presenter**), University of Iowa College of Dentistry  
 Philip Wertz, PhD, University of Iowa College of Dentistry  
 Fang Qian, PhD, University of Iowa College of Dentistry  
 So Ran Kwon, DDS, MS, PhD, MS, LLUSD

### Effect of Continuous Alkali Water Exposure on the Enamel Surface

Vincent Chee, DDS (**Presenter**), LLUSD  
 Sean Lee, DDS, LLUSD  
 Joshua Lee, DO, LLUSD, Denistry Class of 2019

### Tooth Stain Penetration Simulated With Gold Nano-Technology

So Ran Kwon So Ran Kwon, DDS, MS, PhD, MS, (**Presenter**), LLUSD  
 Christopher Perry, PhD, LLUSM  
 Jasmine Walsh, LLU, Exchange student from Alabama  
 Stephanie Merlos, LLU, School of Pharmacy  
 Elvin Walemba, PhD candidate, LLUSM  
 Yiming Li, DDS, PhD, MSD, LLUSD

### Evaluation of pH Modulation Efficacy Using a Gel-Model System

Yiming Li, DDS, PhD, MSD (**Presenter**), LLLUSD  
 So Ran Kwon, DDS, MS, PhD, MS LLUSD  
 Christopher Perry, PhD, LLUSM  
 Elvin Walemba, PhD candidate, LLUSM

### Increased Periodontal Pocket Depth in HIV-Positive Individuals

Ahmed Khocht, DDS, MSD (**Presenter**), LLU  
 Thomas Rogers, DDS'83, Loma Linda University  
 Malvin Janal, PhD, NYU College of Dentistry

### Microbial Colonization and Penetration into a Silicone-Based Denture Soft-Liner

Montry Suprono (**Presenter**), LLUSD  
 Raydolfo Aprecio, DO, LLUSD  
 Zhe Zhong, DDS, PhD, LLUSD  
 Mary Campbell-Beachler, LLUSD  
 Udochukwu Oyoyo, MPH, PhD candidate, LLUSD  
 Yiming Li, DDS, PhD, MSD, LLUSD

### Sodium Fluoride Causes Oxidative Stress and Apoptosis in Cementoblasts

Wu Zhang, MD (**Presenter**), LLUSD  
 Jing Ni, DDS, MS, Shanghai Jiao Tong University  
 Zhe Zhong, DDS, PhD, LLUSD  
 Rong Shu, DDS, PhD, Ninth People's Hospital, SJTU  
 Yiming Li, DDS, PhD, MSD, LLUSD

### Effect of Two Disclosing Solutions on Bacteria of Dental Plaque

Raydolfo Aprecio, DO (**Presenter**) LLUSD  
 Zhe Zhong, DDS, PhD, LLUSD  
 Wu Zhang, MD, LLUSD  
 Sean Lee, DDS, LLUSD  
 Alaina Piper, LLUSD  
 Mary Campbell-Beachler, LLUSD  
 Yiming Li, DDS, PhD, MSD, LLUSD

## ORAL PRESENTATIONS and PRESENTERS

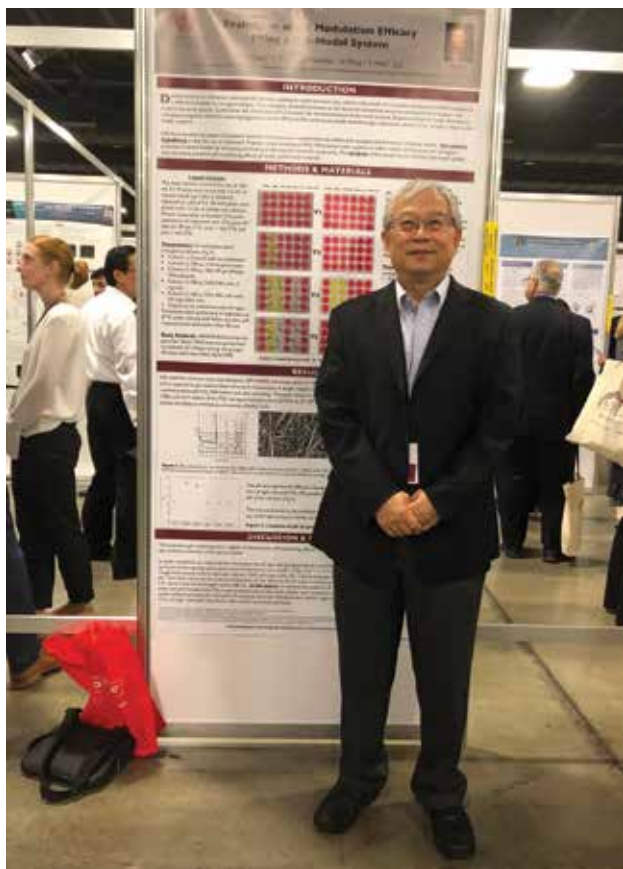
### Keynote Address:

#### Mechanism of Tooth Whitening

So Ran Kwon So Ran Kwon, DDS, MS, PhD, MS, (**Presenter**) LLUSD

#### Microbial Activity Among Infants With or Without Using PNAM Appliance

Jung-Wei Chen, DDS, MS, PhD, MS (**Presenter**), LLUSD  
 Hanieh Hassani, DDS, LLUSD  
 William Hamra, MD, Loma Linda University  
 Wu Zhang, MD, LLUSD



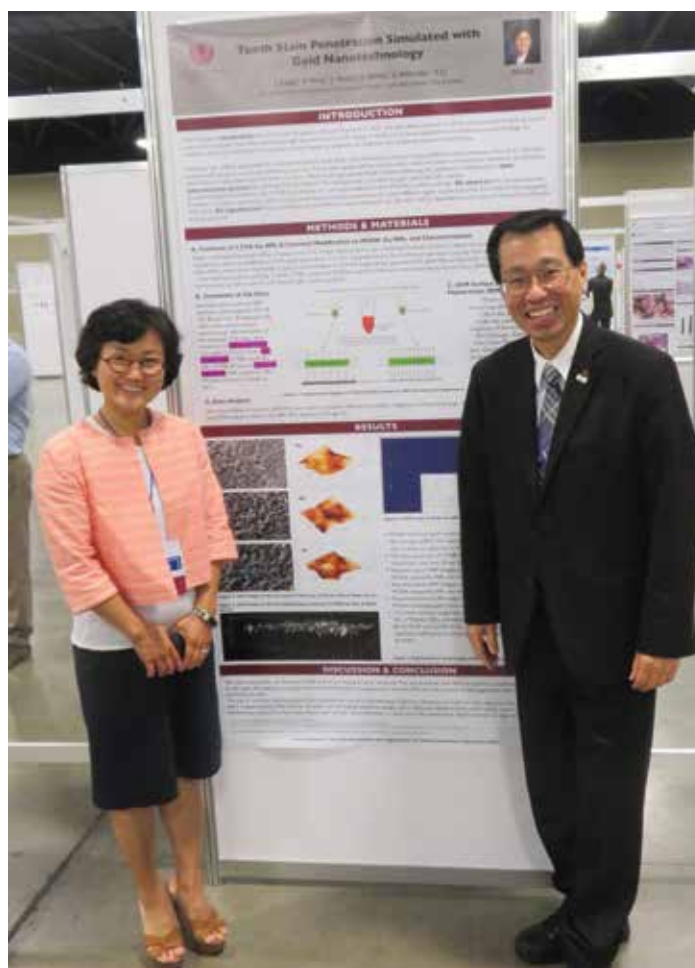
*Dr. Li stands in front of a poster he co-authored with Dr. Kwon and others regarding the efficacy of pH modulation.*



*Dr. Kwon celebrates with Dr. Li his plaque of appreciation for twelve years chairing the ADA Standards Committee on Dental Products.*



*L-R: CDR team members Dr. Raydolpho Aprecio, Dr. Wu Zhang, and visiting scholar, Dr. Jing Ni, and Dr. Montry Suprono pose in front of a poster authored by Dr. Ni and co-authored by Dr. Zhang.*



*Dr. Kwon and Vincent Chee, DDS'92, assistant professor, Division of General Dentistry, stand with her poster.*

# Dental Unit Waterline Testing and Sterilization Assurance Service Order Form

Date \_\_\_\_\_

Dr. Name (Last) \_\_\_\_\_ (First) \_\_\_\_\_

Name office \_\_\_\_\_

Address \_\_\_\_\_ City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Phone ( ) \_\_\_\_\_ Fax ( ) \_\_\_\_\_ E-mail \_\_\_\_\_

## Sterilization Assurance Service

Customer ID# (for current customers) \_\_\_\_\_

Sterilizer Type/Model/Serial #: \_\_\_\_\_

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

☐ Steam \_\_\_\_\_ ☐ Chemical Vapor \_\_\_\_\_ ☐ Dry Heat \_\_\_\_\_

**Basic** (1) One test strip and one control strip per test (2) Return envelopes  
3) Monthly report (4) Failure notification via phone

Price	Quantity	Amount
\$89/12 tests	_____	\$ _____
\$119/24 tests	_____	\$ _____
\$169/52 tests	_____	\$ _____
Optional: Certificate of participation \$12/ea		\$ _____

**Basic Plus** (1) One test strip and one control strip per test (2) Return envelopes  
(3) Weekly report (4) Failure notification via phone

Price	Quantity	Amount
\$229/52 tests	_____	\$ _____

**Intensive** (1) Two test strips and one control strip per test (2) Prepaid return envelopes (3) Certificate of Participation (4) Report on each test  
(5) Failure notification via phone

Price	Quantity	Amount
\$128/12 tests	_____	\$ _____
\$298/52 tests	_____	\$ _____

### Class V Integrator for Steam Sterilizer (New)

Price	Quantity	Amount
\$32/100 tests	_____	\$ _____
\$220/1000 tests	_____	\$ _____

## Dental Unit Waterline Testing

Customer ID# (for current customers) \_\_\_\_\_

Price / Kits	Amount
\$84/3 tests	\$ _____
\$144/6 tests	\$ _____
\$210/10 tests	\$ _____
\$420/20 tests	\$ _____

For more than 20 tests: \$21 \_\_\_\_\_ tests \$ \_\_\_\_\_



Optional: Certificate \$12/each \$ \_\_\_\_\_

- A foam box, ice packs, sample vials, and instructions included.
- Use APHA Standard Methods 9215 to test DUWLs samples.
- Full dilutions provide accurate Heterotrophic bacteria counts.

## Shipping & handling

**Priority Mail** - starting \$15.00/box  
**FedEx 2-day** - \$36/3-12 tests; \$45/13-40 tests

Check enclosed \$ \_\_\_\_\_ (made payable to SAS-LLU)

Charge: Total \$ \_\_\_\_\_ ☐  ☐ 

Name on card \_\_\_\_\_

Card number \_\_\_\_\_

Exp. Date \_\_\_\_/\_\_\_\_ CCV# \_\_\_\_\_ Invoice# \_\_\_\_\_

Mail to:

**Dental Waterline Testing & Sterilization Assurance Service**  
Chan Shun Pavilion, Suite A-1005  
11175 Campus Street, Loma Linda, CA 92350

Tel: (909) 558-8176, (909) 558-8069

Fax: (909) 558-0307

E-mail: sas@llu.edu

<http://dentistry.llu.edu/research/faculty-research/projects/research-services>



## NEWS

*Alison Perez honored with LLUSD's 2018 President's Award***She inspired her peers as president of the American Student Dental Association**

By Genesis Gonzalez  
 LLU Publication Editor & Writer

**A**lison Perez, DDS'18, MS, was honored with the 2018 President's Award by Loma Linda University School of Dentistry at its May commencement in recognition of her outstanding academic achievements and commitment to community service.

This recent graduate's academic excellence placed her on the Dean's list each quarter. Her intellectual curiosity, and her outstanding clinical proficiency, are essential qualifications for the ideal, whole person, oral healthcare provider.

Perez was inspired to pursue a career in dentistry in 2011 after completing her first half-marathon. While training, she came across an article about the important link between oral health and health in general. This insight presented Perez with the challenge to immerse herself in an unfamiliar discipline.

The youngest of four children, Perez is the first member of her family to attend college. She earned her undergraduate degree in psychobiology while attending UCLA. She immersed herself in UCLA's pre-dental organizations and found it rewarding to volunteer at a free clinic, assisting chairside and helping patients. During this time, Perez tutored young children and spent time as a child life volunteer at Loma Linda University Children's Hospital.

Growing up in a supportive, Christian family, Perez always

enjoyed learning and "the challenge of test-taking." As a child, she invented her own homework.

The meaning and satisfaction she takes from academic

engagement led Perez to enroll in the bioethics dual degree program at Loma Linda University that enabled her to earn simultaneously a master's degree in bioethics and a doctorate in dental surgery. This combination of knowledge and skill make her an unusually positive resource for whatever community she chooses to serve.

Perez became active in Loma Linda University's American Student Dental Association during her second year, serving as its president her senior year. She worked hard to encourage her peers to become involved in this association that fosters ethics in academia and clinical practice.

"As members of the healthcare community, we have the unique ability to care for and nurture fellow human beings," Perez says. "This is the most motivational, and I'm sure will be the most rewarding aspect of dentistry."

Each year, Loma Linda University honors one student from each school with the President's Award, recognizing a student's individual accomplishments in scholarship excellence and community service within the framework of commitment to the highest ideals of the university.



*Dr. Alison Perez*

## Christopher Chan honored with Academy of Dentistry Student Services Leadership Award

Christopher A. Chan, DDS'17, was among 12 senior dental students to receive the Academy of Dentistry International's 2017 Student Services Leadership Award.

Announced on October 31, 2017, the awards are issued to graduating dental students who have demonstrated outstanding compassion through patient care and patient education, and who have participated in a minimum of two humanitarian trips or volunteered in two charity/free clinics in the USA, or a combination of one of each. Awardees must also have exhibit edleadership characteristics and provided community service throughout their dental school training.

Dr. Chan was presented the award during the LLUSD class of 2017 senior banquet.



*Dr. Chan holds his award plaque next to Tom Rogers, DDS'83, MPH'96, MA, professor and director Faculty and Leadership Development.*

## Nadim Baba installed as president-elect American College of Prosthodontists

The American College of Prosthodontists (ACP) has installed Nadim Z. Baba, DMD, MSD, professor, Advanced Specialty Education Program in Prosthodontics, as its president-elect. Dr. Baba will assume the role of president in late 2018.

Dr. Baba was sworn in during the 47th Annual Session of the ACP held in San Francisco, November 1-4, 2017.

"I am very grateful to the members of the College for the trust they put in me. I will do everything I can to be an outstanding representative of prosthodontics across the nation and around the world," said Dr. Baba.

Dr. Baba has given over 100 national and international presentations, and regularly reviews and edits industry publications like the *Journal of Prosthodontics*, *Journal of Prosthetics Dentistry*, and *Journal of Dental Traumatology*, where he also serves as an associate editor. He is a Diplomate of the American Board of Prosthodontics and maintains a part-time private practice limited to prosthodontics and implant dentistry in Glendale, California.



*Dr. Nadim Baba*

## Implant Dentistry team published

Faculty members and fellows from the LLUSD Advanced Education Program in Implant Dentistry coauthored an article published in the December 2017 issue of the *Journal of Oral Implantology*, pp. 482-490, entitled, "Managing Titanium Mesh Exposure with Partial Removal of the Exposed Site: A Case Series Study."

Corresponding author, Aladdin J. Al-Ardah, BDS, MS, associate professor; and his co-authors—Abdulaziz AlHelal, BDS, MS, 2017, fellow; Periklis Proussaefs, DDS, MS, associate professor; Bader AlBader, BDS, 2016 educator dentist; Abdulkareem A. Alhumaidan, BDS, MSD, 2016, fellow; and Jaime L. Lozada, DDS, professor and director—concluded:

There is a controversy in the literature regarding the effect of TiMe exposure on bone volume. Removing the exposed portion of the TiMe did not have a negative effect clinically on the integration of the grafted bone and the bone volume available for implant placement. Furthermore, it allowed for easier hygiene maintenance by the patient at the grafted site. Further research is needed before definitive conclusions can be made.



Dr. Aladdin Al-Ardah

## LLUSD faculty contribute to April CDA Journal

Leif Bakland, DDS'63, distinguished emeritus professor, Department of Endodontics, was guest editor for the April 2018 *CDA Journal*. Along with Dr. Bakland's introductory article, "Evolving Aspects of Endodontic Treatment," an article co-authored by Tory Silvestrin, DDS, MSHPE, MSD'15, chair, Department of Endodontics, and program director, Advanced Specialty Education Program in Endodontics, and Charles Goodacre, DDS'71, MSD, distinguished professor, Department of Prosthodontics, entitled, "Implant Dentistry and Endodontics: Can There Be a Mutually Beneficial Relationship?" appeared in the same issue.

From his guest editor's chair Dr. Bakland introduced the article by Drs. Silvestrin and Goodacre:

Recognizing the value of dental implants when indicated, endodontists also began placing them. In this issue, authors Tory Silvestrin, DDS, MSD, and Charles J. Goodacre, DDS, MSD, report on the coexistence of endodontics and implant dentistry.

The Silvestrin-Goodacre article concluded with a diplomatic bridge:

Endodontics focuses on preservation of teeth with pulpal and periapical disease. Implant dentistry provides replacement of missing or nonsalvageable teeth with implant-supported restorations. Arguments have been made that teeth are sometimes treated endodontically but instead should be replaced with implants. Opposing arguments suggest that teeth have been needlessly replaced with implants. Data show that endodontics and implant dentistry play important roles in patient-centered dentistry.



Dr. Leif Bakland



Dr. Tory Silvestrin



Dr. Charles Goodacre



## LLUSD and LLUSM collaborate on research

A research collaboration between So Ran Kwon, DDS, PhD, MS, professor and director of Student Research, and Christopher Perry, PhD, assistant professor, LLU School of Medicine, regarding Bioengineered Materials to Modulate the Cariogenic Potential of Dental Biofilm, was awarded (January 31, 2018) a Grant for Research and School Partnerships (GRASP) by the LLU Office of Research Affairs.

The Kwon-Perry two-school proposal was one of seven projects with investigators from different schools selected for awards that fulfill the GRASP, GCAT, and RIG objective to encourage collaborative research among different LLU schools and programs.



*Dr. So Ran Kwon*



*Dr. Christopher Perry*

## CDR researcher co-authors case study

Gina Delia Roque-Torres, DDS, MsC, PhD, postdoctoral fellow and research associate, Center for Dental Research, is co-author of an article in the January issue of *General Dentistry* 66(1):54-56 entitled, "Simple bone cyst: rare incidental finding in the mandibular condyle by cone beam computed tomography."

This case report describes a simple bone cyst in the mandibular condyle region discovered incidentally by imaging examinations.



*Dr. Gina Delia Roque-Torres*



*Dr. Edwin Christiansen*

## Ed Christiansen inducted as ACD Fellow

Edwin Christiansen, DDS'75A, PhD, professor, Department of Radiologic and Imaging Sciences, was inducted as a Fellow in the American College of Dentists at the 2017 Convocation of the ACD October 19, 2017, at the Atlanta Marriott Marquis, Atlanta, Georgia.

The American College of Dentists is the oldest major honorary organization for dentists. The selection of fellows is based on their contributions to organized dentistry, oral health care, dental research, dental education, the profession, and society.

## Family practice—literally and figuratively

Family Dentistry has more than one connotation when applied to The Kaban Dental Group of San Juan Capistrano on the southern California coast.

The “Group” founded by Gerald Kaban, DDS’85, a northern California endodontist now consists of his younger brother, LLU School of Dentistry alumnus Lawrence Kaban, DDS’86, and his daughter Kelly Kaban, DDS’17, who graduated last year with honors and had the pleasure of receiving her diploma from her father whose practice she then joined.

biology. Her research interests in field biology found her during college doing research on the island of Maui to determine the cause of the mandible (chelicerae) size variability in a particular kind of spider across the Hawaiian Island chain and, after college, mapping the dispersal of an invasive plant species in Tahiti.

Despite her varied interests, Kelly’s career aspirations eventually shifted from academia to dentistry where she made the decision to return to school. Joining her father’s practice

last year included what Kelly called “an interesting dynamic that included the fact that some patients already knew me from my teenage years working in the office. Others ‘knew me’ from my dad bragging about me while I was away for eight or ten years of education.”

Now, as Dr. Kelly Kaban, she is taking LLUSD’s ten-month maxicourse in implant dentistry for the purpose of adding that significant dimension to the Kaban family dental office.

“We work well together,” Dr. Kaban says of joining her father’s practice. “I’m

coming out of school with new things I’ve learned and my dad has all that experience. It’s a good combination.”

Dr. Kaban says she has “developed a respect for spiders and dentistry.” Through the family practice, she adds, “I hope to alleviate our patients’ fear, maybe not of spiders, but of the dentist—for now.”



*L-R: Dr. Lawrence Kaban celebrates with Dr. Kelly Kaban and Interim Dean Joseph Caruso.*

Dr. Kelly Kaban is a Huntington Beach native who grew up with a younger brother attending schools in Costa Mesa and Newport Beach. Her school teacher mother encouraged an active life of diverse activities, and her dentist father (who has taught recreational volleyball in the community for more than 40 years) made it possible to pursue her interests in travel, painting, languages, and outdoor activities.

Kelly graduated from the University of California, Berkeley with a bachelor of science degree in molecular environmental

## *HSRA grant provides pediatric dentistry faculty relief from student loans*

**T**he US Department of Health and Human Services' Health Resources and Services Administration (HSRA) has awarded LLU School of Dentistry's Department of Pediatric Dentistry \$864,000 in financial relief for members of its faculty beginning September 2017 specifically for the repayment of educational loans.

The HSRA grant, submitted by Pediatric Dentistry's graduate program director, Jung-Wei "Anna" Chen, DDS, MS, PhD, will greatly aid the recruitment of younger faculty who could not otherwise afford to repay their educational loans on a faculty salary.

The median debt for dental school graduates is \$375,000; and the additional median debt of pediatric dentistry graduate students is approximately \$160,000. The purpose of faculty loan repayment (and this grant) is to help maintain and recruit full-time pediatric dentistry faculty by assisting them in the repayment of their educational loans.

The HSRA grant will be administered by an LLUSD Loan Repayment Selection Committee.

Grant recipients are obliged to maintain full-time faculty status (0.8FTE) that will include 0.5 FTE pediatric dentistry clinic coverage, 0.1 FTE conducting dental hygiene screenings, and 0.1 FTE commitment to teledentistry and data collection for the purpose of research project generation.

The Department of Pediatric Dentistry's financial challenges are exacerbated by the financial depression of the San Bernardino County population it serves. More than 50 percent of the children treated by pediatric dentistry's predoctoral students and residents are covered by Denti-Cal.

The HSRA grant has already significantly offset the education loans of two Department of Pediatric Dentistry faculty members and will greatly aid the recruitment of younger faculty who could not otherwise afford to repay their educational loans on a faculty salary.

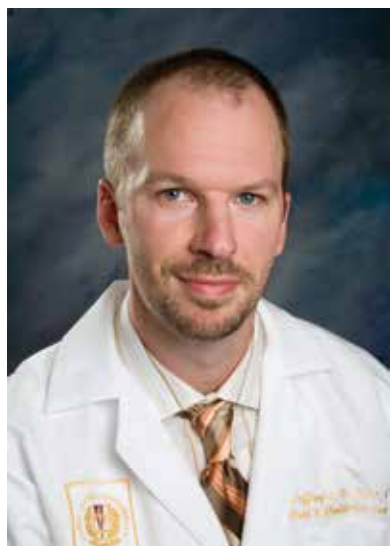


*Dr. Jung-Wei Chen*

## *OMFS faculty published in CDA Journal*

**J**effrey A. Elo, DDS'06, MS, assistant clinical professor in the Department of Oral and Maxillofacial Surgery, is co-author of an article in the November 2017 issue of the *CDA Journal* (Vol. 45, No 11, page 601) entitled, "Determination of a Low-risk Mandibular Symphysis Graft Donor Site."

A radiographic survey was undertaken to determine the proper anatomic dimensions of a minimal-risk donor site that could help minimize the risk of damaging vital structures in the vast majority of block graft harvests of the anterior mandibular region.



*Dr. Jeffrey Elo*



## *LLUSD pediatric dentistry graduate honored by ABPD*

**J**essica Machado, DDS, MSD'17, is the 2017 recipient of the James R. Roche Award of Excellence given by The Foundation of the College of Diplomates (ABPD) of the American Board of Pediatric Dentistry to the candidate who achieves the highest score on the qualifying examination.

Dr. Machado was presented with a plaque and a \$1,000 honorarium at the Recognition Reception and New Diplomate Pinning Ceremony of the American Board of Pediatric Dentistry on Thursday, May 24, 2018, at the ABPD Recognition Reception and new Diplomate Pinning Ceremony at the Hilton Hawaiian Village

Dr. Machado also received the Richard C. Pugh Achievement Award presented annually by the American Board of Pediatric Dentistry to dentists who score in the top 3 percent of those taking the qualifying examination.



*Dr. Jessica Machado*

## *Steven Morrow reappointed*



*Dr. Steven Morrow*

**S**teven Morrow, DDS'60, MS, associate dean, Advanced Education, has been reappointed as president of the Dental Board of California on which he has served since 2010.

Dr. Morrow's earlier assignments at LLUSD included professor of endodontics and director Patient Care Services and Clinical Quality Assurance.

Before joining the LLUSD faculty, Dr. Morrow practiced privately as an endodontist from 1963 to 2005 and served as a lieutenant in the US Navy Dental Corps (active and reserve duty) from 1960 to 1962.

## *Kyle Leis receives Terry Tanaka Award*

**A**s a senior dental student, Kyle Leis, DDS'18, was presented with the Terry Tanaka Student Humanitarian Award by its sponsor, Terry Tanaka, DDS, on October 18, 2017, during the Academy of Dentistry International's annual convocation and awards banquet in Atlanta, Georgia.

The award is given to one senior dental student each year in recognition of outstanding, exemplary volunteer services during the prior three years in dental school.

Kyle is the sixth consecutive LLUSD student to win the Terry Tanaka Award, and the eighth LLUSD student to receive the honor in the award's fifteen-year history.



*Dr. Terry Tanaka and Dr. Kyle Leis*

## Substantial co-authoring at CDR

**Y**iming Li, DDS, MSD, PhD, associate dean, Research, and Wu Zhang, MD, professor and director, Research Services, are co-authors with six researchers from three universities in China entitled, "Fluoride resistance capacity in mammalian cells involves complex global gene expression changes," published in *FEBS Open Bio* 7 (2017) 968–980.

Drs. Li and Zhang—along with colleagues Raydolfo Aprecio, DO, research associate; Omaina Mohamed, lab assistant; and Min Wang, DDS, visiting scholar—also are co-authors with five researchers from other universities in an article entitled, "25-Hydroxyvitamin D3-enhanced PTPN2 positively regulates periodontal inflammation through the JAK/STAT pathway in human oral keratinocytes and a mouse model of type 2 diabetes mellitus," published March 8, 2018, in the *Journal of Periodontal Research*.



*Drs. Li and Zhang*

## David Sharif awarded

**D**avid Sharif, DMD, first-year graduate student, Advanced Specialty Education Program for Periodontics, was awarded second place for his outstanding clinical presentation entitled, "Accuracy and Clinical Indications of CBCT Impression Scanning," at the 66th Annual Scientific Session of the Western Society of Periodontology, April 6, 2018, in San Diego, California.



*Dr. David Sharif*

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## Measuring metabolic activity in TMJ

"Undiagnosed, chronic temporomandibular joint pain: making a case for FDG-PET/CT," an article by Dwight Rice, DDS'96, associate professor, Radiology and Imaging Services, with five LLU co-authors—Kenneth Abramovitch, DDS, MS, professor, Radiology and Imaging Services; Susan Roche, DDS'93, MS, associate professor, Oral and Maxillofacial Surgery; Cherie Cora, MD, assistant professor, Radiology, LLUSM; Karina Torralba, MD, head, Division of Rheumatology & Immunology, LLUSM; and Heidi Christensen, DDS'83, MS, associate professor and academic director, Division of General Dentistry—was published in the July 2017 issue of the *International Journal of Rheumatic Diseases* 2017;20: 2122-2126.

The authors concluded that "PET-CT/FDG allow quantitative measurement of metabolic activity in the TMJ. It may provide clinicians with an early diagnostic tool allowing pharmacologic intervention to slow the progression of RA and its sequelae."



*Dr. Dwight Rice*

## FOND FAREWELLS

*Christopher Hekerem**Dr. Christopher Hekerem*

Born August 5, 1942, and raised in Nigeria, **Christopher Hekerem**, DDS'80, studied at Okrika Grammar School, a secondary school for boys in Okrika, Nigeria. He worked as a dental technician, 1963 to 1973, before immigrating to the United States on a scholarship. He completed both biology undergraduate studies (1976) and dental studies (1980) at Loma Linda University.

Returning to Nigeria, Dr. Hekerem worked for the Rivers State Government as a dental surgeon. He also served on the faculty and assisted in the accreditation of the School of Dentistry at the University of Port Harcourt College of Health Sciences in Nigeria. He enjoyed playing and watching tennis and served in various capacities at the local church and conference of the Seventh-day Adventist church in Nigeria. He retired from dental practice and teaching in 2016.

After a protracted battle with prostate cancer, Dr. Hekerman died on December 20, 2017. Mourning his death are his wife of 42 years, Blessing Hekerem (Nigeria); his two sons—Kemka Hekerem, MD, of Houston, Texas, and Chimeka Hekerem of Houston—his daughter, Adanma Uche-Onyeche of Nigeria, and five grandchildren.

*Darrel Martin**Dr. Darrel Martin*

**Darrel Martin**, DDS'59, was born in Melbourne, Oklahoma, on September 23, 1927. He completed military service in the Philippines during World War II before pursuing predental studies at Walla Walla University.

Upon completion of dental studies with the class of '59 at LLUSD, he practiced dentistry for 38 years, first in Oregon and then in Port Hardy, British Columbia, Canada. Those who knew him best say that church and family were important to him. He contributed his finish carpentry skills to church buildings projects in Port Hardy and Kamloops, Canada. An

outdoorsman, Dr. Martin enjoyed gardening, fishing, and hiking with his family.

He was living in retirement at Menifee, California, when he died on December 8, 2017. His survivors include his wife of 64 years, June, of Menifee; his daughters—Cindy of Menifee and Susan (husband Alexis "Lex") Batista of Gilbert, Arizona—his son Brad of Vancouver, Washington, and one grandson.

*Hilbert Lentz**Dr. Hilbert Lentz*

A member of LLUSD's first graduating class, **Hilbert "Bert" Lentz**, DDS'57, MS'70, was born in Hamilton, Ohio, in 1928. At 18 he became a navy machinist mate on the USS Orion. Acting on a navy dentist's encouragement, Dr. Lentz explored dental opportunities and completed predental education at Atlantic Union College in Massachusetts. Upon acceptance at LLUSD, he arrived on site, searched for the dental school among the orange groves, and finally learned that the school was under construction; he would be studying dentistry in the

medical school.

After graduation, Dr. Lentz became assistant dental surgeon at a Coast Guard base in Maine. In 1963 he returned to Loma Linda, completed an orthodontics graduate program in 1970, and joined the LLUSD faculty in 1979, where he remained until retirement at age 83.

Dr. Lentz died peacefully at home in Highland, California, on December 23, 2017, leaving to mourn his companion of 50 years, Elsie McLellan; his children—Wendi of Martinez, California, and Paul of Yucaipa, California—and his grandson, Josef Saltz of Cerritos, California. He will be remembered for his many hobbies and collections, a soft heart and touch for animal charities, an immaculate attention to what he wore, and a quick wit.

*John Uniat**Dr. John Uniat*

Born in Beauvallon, Alberta, Canada, on June 29, 1929, **John Uniat**, DDS'59, became a medical laboratory technician before serving in the army in Korea. There in an American goodwill operation, he filled scores of teeth for Korean children—and determined to study dentistry. After predental studies at Walla Walla University he entered University of Oregon's School of Dentistry. When attending Sabbath classes became an issue, Dr. Uniat transferred to LLUSD, graduating with the class of '59.

Establishing a dental office in San Jose, California, Dr. Uniat practiced there until in his 80s. He spent long hours at his dental practice and yet included dental mission trips to Mexico on his calendar as well as supporting medical visits to Ukraine and becoming involved in school and church projects at Campbell Adventist Church in Campbell, California.

After an extended illness, Dr. Uniat died in San Jose on November 8, 2017. His survivors include Virginia Uniat of Redlands, the mother of his children; Leslie his wife, of San Jose; his sons—John, LLUSM'84 (wife, Pranee Thulythan, LLUSM'85), of Redlands, California, and Mark of Los Gatos, California—his daughter, AnnMarie (husband Larry) Miller of Fair Oaks, California; his three grandchildren, and one great grandchild.



## ***Gary Wuchenich***



***Dr. Gary Wuchenich***

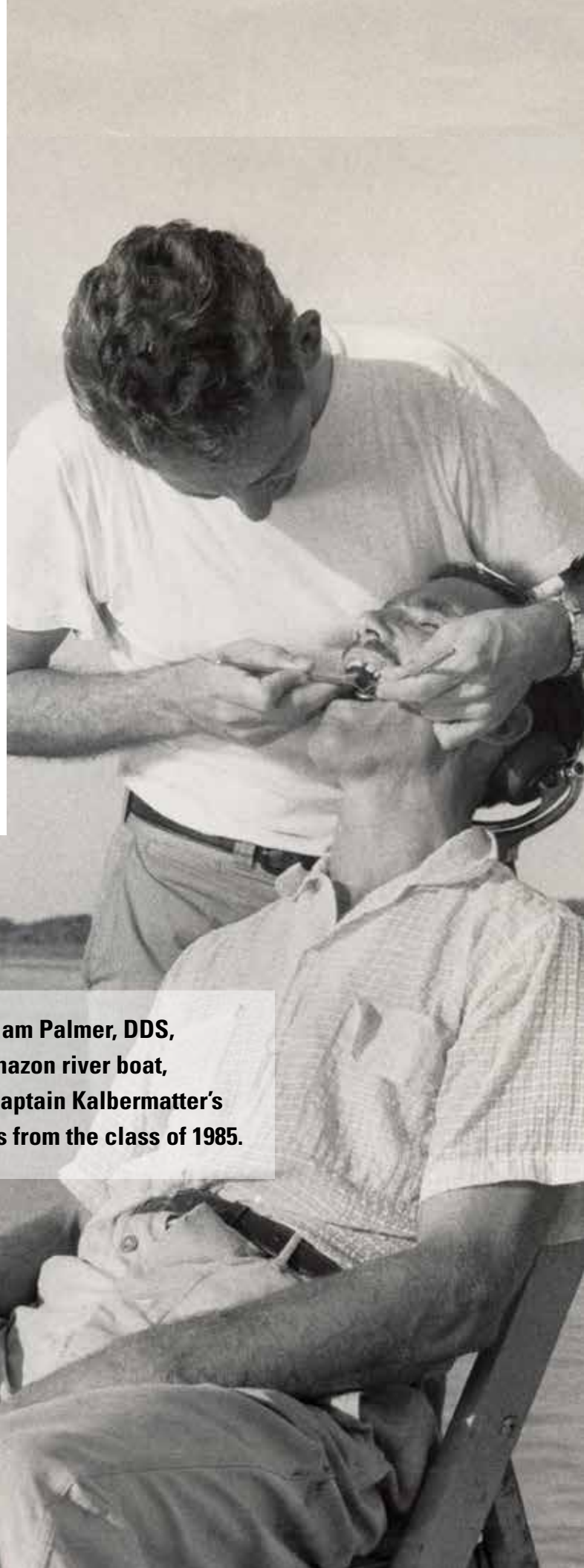
**Gary Thomas Wuchenich, DDS'77, MS '94**, was born in Pittsburgh, Pennsylvania, on October 16, 1951, his mother's birthday. He graduated at Andrews University before joining LLUSD's class of 1977. Initially practicing general dentistry in San Jose, California, he returned to LLUSD for a master's in endodontics. In 1997 he opened his specialty practice in Redlands, California. Giving his best to every patient, Dr. Wuchenich was committed to excellence in diagnosis and treatment.

After retiring in 2013, Dr. Wuchenich taught part-time at LLUSD and at the Jerry L. Pettis Memorial Veterans Hospital. He was passionate about inspiring students and residents to become highly competent and successful.

In addition to traveling, gardening, skiing, boating and racquetball, he was involved in the community, the University Church as a deacon, and the John and Mildred Medic Wuchenich Foundation as treasurer. His life revolved around his nieces and nephews.

Mourning his death on April 10, 2018, are Dr. Wuchenich's siblings—Nanette, LLUSM '78; Danielle; John (wife Gayle), LLUSM '77A; Melanie Jobe (husband Christopher, LLUMS '79), all of Redlands, and Valerie Wuchenich-Nelson, LLUSAH '75, of Oroville, California—and 16 nieces and nephews.

Donations in Dr. Wuchenich's memory may be made to LLUSD's Department of Endodontics.



**Memories: LLUSD founding faculty member William Palmer, DDS, attends to Alfredo Kalbermatter, captain of an Amazon river boat, *Auxiliadora*, during a 1957 mission trip to Peru. Captain Kalbermatter's daughter, Marta, is a School of Dentistry alumnus from the class of 1985.**

# 2019 LLU/AAID Implant MaxiCourse®



LOMA LINDA UNIVERSITY  
School of Dentistry



The 2019 LLU/AAID MaxiCourse® offers 300 hours of lectures, hands-on workshop sessions, live surgical demonstrations, online lectures, and clinical experiences that place dental implants on participating patients. The LLU/AAID MaxiCourse® brings the experience of widely regarded instructors and clinicians from Loma Linda University and around the world.

The 10-month sessions (two days per month) also help prepare participants to take the written portion of the AAID Associate Fellow Membership Examination. The didactic portion of the course includes information for beginning, intermediate, and advanced clinicians in implant dentistry who wish to expand their knowledge in this field.

The program is designed to take its participants systematically through the options learning approach of implant dentistry provides.

Starting with basic concepts, diagnosis, treatment planning, dental implant surgery, and implant prosthodontics, attendees develop sequential treatment plans on their own patients and participate in performing surgeries with the assistance of experienced faculty members and residents of the Advanced Education Program in Implant Dentistry.

Attendees also experience hands-on workshops during which procedures such as cone-beam imaging analysis, simulated patient-based dental implant surgery on life-like mannequins, and guided-bone regeneration procedures on cadavers and pig jaws complete their understanding of basic and advanced dental surgical procedures.

**Dates:** March 7 - December 6, 2019

**Tuition:** \$18,000

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To register for LLU/AAID MaxiCourse contact Loma Linda University School of Dentistry Continuing Dental Education office at (909) 558-4685 or visit us online at: [dentistry.llu.edu](http://dentistry.llu.edu) or [www.llumaxicourse.com](http://www.llumaxicourse.com)





LOMA LINDA UNIVERSITY  
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# Upcoming CE Courses

**Physical Examination of the Head and Neck for Dental Health Care Providers & Women's Health: "Nothing they have told me is true."**

Sunday, January 13, 2019

**Anterior Aesthetics as an Art Form: Treatment Planning for Aesthetic Dentistry**

Sunday, January 27, 2019

**The Digital Evolution of Patient Treatment**

Sunday, February 10, 2019

**Gordon M. Rick Oral Cancer Lectureship  
Differential Diagnosis of Oral Mucosal Lesions: Can you tell the difference between reactive, premalignant, and cancer?**

Thursday, February 28, 2019

**"The Phantom of the Opera-tory": An Overview and Update in Pharmacology for the Entire Dental Team!**

Sunday, March 3, 2019

**Dental Divas and Problem Parents? No Problem!**

Sunday, March 24, 2019

**Hot Topics in Infection Control and the California Dental Practice Act**

Sunday, April 7, 2019

**Periodontics Symposium: Clinical Applications of Modern Techniques**

Sunday, April 14, 2019

**Patient Photography Made Easy! A Lecture and Workshop**

Sunday, April 28, 2019

**Dispelling the "CSI Effect" Myth, An Overview of Contemporary Forensic Dentistry and Dentistry's Role in the Mass Disaster Scenario/Child Abuse and Intimate Partner Violence Recognition**

Sunday, June 2, 2019

**Orthodontic Assisting Permit Program**

Sunday, September 2, 2019

**Medical Emergencies in the Dental Office: A Simple Approach**

Sunday, September 15, 2019

**Hot Topics in Infection Control and the California Dental Practice Act**

Sunday, September 29, 2019

**Dental Caries: A Disease of Choice?**

Sunday, October 6, 2019

**Local Anesthesia: Give it Your Best Shot**

Sunday, November 10, 2019

For more information or to register, contact LLUSD Continuing Education  
11245 Anderson Street, Suite 120 Loma Linda, CA 92350  
Ph: (909) 558-4685 | F: (909) 558-0835 | [dentistry.llu.edu](http://dentistry.llu.edu)





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# ALUMNI STUDENT CONVENTION

ONE  
*homecoming*

***Thursday, February 28, 2019***  
***through***  
***Sunday, March 3, 2019***

*To register call LLUSD Continuing Education at (909) 558-4685 or visit [dentistry.llu.edu](http://dentistry.llu.edu)*