
Herman Ostrow School of Dentistry of USC

[4/16/2025]



COMMUNITY MESSAGE

FROM THE DESK OF INTERIM DEAN YANG CHAI

Dear Trojan Dental Community,

Last week, we hosted Research Day, an annual event showcasing all the scientific inquiry taking place at Ostrow from our colleagues here in dentistry as well as in biokinesiology/physical therapy and occupational science/occupational therapy. We take great pride in Research Day, closing Ostrow's labs and clinic spaces for the day to encourage student participation.

For me, an avid learner and researcher for life, it's exciting and heartening to see our students so engaged in the research process, eagerly showing their research findings to others and learning just as much by perusing the myriad research posters throughout the USC Galen Center. We say it all the time, but it bears repeating: The more comfortable our students are consuming, thinking critically about and adapting new knowledge in their fields, the more successful their careers are likely to be. No profession idles in its knowledge base for long; there are countless innovations, discoveries and technologies to always be learning. Events like Research Day help to underscore this.

This year, we showcased more than 160 research posters — an all-time high! I would like to thank all who took time out of their day to attend, especially the day's speakers, **Ishwar Puri** (Senior Vice President, Research and Innovation), **Amy Merrill**, **Jose-Luis Ambite** (USC Viterbi), **Glenn Clark** and **Lisa Aziz-Zadeh** (USC Chan). Please join me in congratulating the day's winners and their faculty advisors for their award-winning discoveries (see below for list of all dentistry recipients)! I'd also like to thank the hard-working staff members who helped make the day such a success. And finally, I'd like to give kudos to the editors of *The Explorer*, our award-winning student research journal. If you didn't get a chance to view it, [you can find it here](#). It's a tough job every year to put this publication together, so thank you to all the students, faculty and staff members who had a hand in it.

Award Winners

***THE EXPLORER* COVER CONTEST**

Sa Cha

**WILSON DENTAL LIBRARY DR. CLIFTON & LOIS DUMMETT RESEARCH
AWARD**

Sheiva Hodjati

Advisor: Mehdi Mohammadi

"Oral Health Disparities: DMFT Score Analysis of Unhoused vs. General Population"

USC STEVENS CENTER FOR INNOVATION — MOST COMMERCIAL POTENTIAL

Erika Bauza Nowotny

Advisor: Janet Moradian Oldak

"Treating White Spot Lesions and Non-Carious Cervical Lesions with Amelogenin Peptide-Based Hydrogel"

ADVANCED DENTISTRY SPECIALTY PROGRAM RESIDENTS

Reem Aldhafiri

Advisors: Jin-Ho Phark, Sillas Duarte

"Biaxial Flexural Strength of Novel CAD/CAM Resin-Based Definitive Materials"

Nicole Kawakami

Advisor: Glenn Sameshima

"Eruption Timing in Hispanic Adolescents Compared to Caucasian Standards"

CBY/PIBBS GRADUATE STUDENTS

Audrey Nickle

Advisor: Amy Merrill

"Investigating Mechanisms of Craniosynostosis in Bent Bone Dysplasia Syndrome"

Heliya Ziaei

Advisor: Yang Chai

"Kdm6b is a Key Regulator of Tooth Root Morphogenesis and Neurovascular Bundle Formation"

DDS & UNDERGRADUATE STUDENTS — BASIC SCIENCES

Aaron Harouni

Advisor: Yang Chai

“Kdm6b Maintains Mesenchymal Tissue Homeostasis in the Mouse Incisor”

Alexander Lewandrowski

Advisor: Amy Merrill

“Stat3 Regulation Spurs Growth Plate Fusion and Overarching Craniofacial Development”

DDS & UNDERGRADUATE STUDENTS — CLINICAL SCIENCES

Harrison Chang

Advisor: Casey Chen

“Biofilm Formation on Dentin Treated with Silver Diamine Fluoride and a Silver-Binding Peptide”

Haeseong Lee

Advisor: Parish Sedghizadeh

“Evaluating Accuracy of an AI-Based Application for Diagnosing Temporomandibular Disorders”

POSTDOCTORAL FELLOWS

Gayathri Visakan

Advisor: Janet Moradian Oldak

“Ameloblastin Amphipathic Helix Mutation Inhibits Ameloblast Polarization and Matrix Secretion”

Mingyi Zhang

Advisor: Yang Chai

“The ARID1-BAF Network Safeguards Stem Cell Commitment in Adult Tissues”

THE DEAN’S RESEARCH AWARD

Haeseong Lee

Advisor: Parish Sedghizadeh

“Evaluating Accuracy of an AI-Based Application for Diagnosing Temporomandibular Disorders”

Finally, I'd like to congratulate the students who are finishing their final examinations this week ahead of the trimester break that runs through early May. Of course, our clinics will remain abuzz with activity as some of our students — especially those nearing the end of their studies here at USC — continue to treat patients in the run-up to Commencement.

Stay safe, and fight on!

Yang Chai, DDS, PhD
Interim Dean

Associate Dean of Research
George and MaryLou Boone Chair in Craniofacial Molecular Biology
Director, Center for Craniofacial Molecular Biology
University Professor of Dentistry, Stem Cell Biology and Regenerative
Medicine, and Otolaryngology-Head & Neck Surgery



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Our mailing address is:
925 W. 34th Street DEN 202
Los Angeles, CA 90089

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