

Leonardo Aliaga, M.D.

Clinical Assistant Professor
Department of Emergency Medicine
Stanford University School of Medicine

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A. EDUCATION

Colleges and Universities Attended

1997-2002	University of Illinois at Chicago, B.F.A. in Photography, with Honors
2004-2006	Northwestern University, Professional Health Careers Post-Baccalaureate Program
2007-2013	University of Chicago, Pritzker School of Medicine, M.D., with Honors
2021-present	University of Illinois at Chicago, Master of Health Professions Education Candidate

Post-graduate Training

2013-2017	University of California Los Angeles, Neurosurgery Residency Training Program
2018-2021	University of California Davis, Emergency Medicine Residency Training Program
2021-2023	Stanford University School of Medicine, Department of Emergency Medicine, Fellowship in Advanced Medical Education Scholarship Skills

Additional Professional Training

11/2017	Association of American Medical Colleges Medical Education Research Certificate Workshop: Questionnaire Design, Survey Research
08/2019	American College of Emergency Physicians Residents Teaching Fellowship
2021-2023	Stanford Health Professions Education and Scholarship (SHaPES) Program
2023-2024	Society for Academic Emergency Medicine Advanced Research Methodology Evaluation and Design: Medical Education (ARMED MedEd) Course

B. EMPLOYMENT

Academic Appointments

08/01/2021-07/31/2023	Clinical Instructor, Stanford University School of Medicine, Department of Emergency Medicine
01/01/2024-present	Clinical Assistant Professor, Stanford University School of Medicine, Department of Emergency Medicine

C. TEACHING AND CLINICAL CARE

Clinical Teaching Responsibilities

- 2021-2024 Resident, medical student, and advanced practice provider supervision and training on clinical shifts in the Stanford Emergency Department.
- 2021-2024 Friday Teaching Moments, brief didactic sessions during nurse and tech huddles, Stanford Emergency Department.

Other Teaching Experience

- 2008-2009 Teaching assistant for the Human Anatomy course for 1st year medical students, University of Chicago Pritzker School of Medicine, Chicago, IL.
- 2009 Teaching assistant for the Neurobiology and Neuroanatomy course for 1st year medical students, University of Chicago, Pritzker School of Medicine, Chicago, IL.
- 2012-2013 Teaching assistant for the Clinical Pathophysiology and Therapeutics course for 2nd year medical students, University of Chicago Pritzker School of Medicine, Chicago, IL.
- 2015 Creation of "UCLA Neurosurgery R2 Survival Guide: Improving Transition from Internship to Junior Residency" Department of Neurosurgery, University of California Los Angeles, Los Angeles, CA.
- 2015 Course tutor for the Problem Based Learning Neurosciences Section, University of California Los Angeles David Geffen School of Medicine, Los Angeles, CA.
- 2018 Case facilitator for MS1 Clinical Skills Session: History and Physical using standardized patients, Clinical and diagnostic reasoning. University of California Davis School of Medicine, Sacramento, CA.
- 2019 Suture skills sessions for 3rd year medical students, California Northstate University College of Medicine, Elk Grove, CA.
- 2019 "Growing Your Collection of Illness Scripts in EM" Didactic session, Department of Emergency Medicine, University of California Davis, Academic Forum, Sacramento, CA.
- 2019 "Introduction to Emergency Department Supplies" emergency medicine intern training sessions, Department of Emergency Medicine, University of California Davis, Sacramento, CA.
- 2019-2020 "Introduction to Pediatric Emergency Medicine" Monthly didactic series for 4th year medical students, Emergency Medicine Clerkship, University of California Davis School of Medicine, Sacramento, CA.
- 2019-2020 Project Leader for "Visual Diagnosis: A Platform for Practicing Presentation Skills" Department of Emergency Medicine, University of California Davis, Sacramento, CA.
- 2020 "Strategies for organizing your mental schema of EM" Didactic session, Department of Emergency Medicine, University of California Davis, Academic Forum, Sacramento, CA.
- 2021 Created and delivered a novel, active learning curriculum to teach head computed tomography interpretation to emergency medicine residents. Department of Emergency Medicine, University of California Davis, Sacramento, CA. "Rethinking Radiology: An Active Learning Curriculum for Head Computed Tomography Interpretation." *West J Emerg Med.* Jan 2022; 23(1):47-51. PMID: 35060860.
- 2021 Suture skills training sessions for 2nd year medical students, INDE 205: Practice of Medicine V, Stanford University School of Medicine, Palo Alto, CA.
- 2021 Procedure Simulation Day, Thoracostomy and Pigtail Catheter Placement, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
- 2022 Introduction to the Medically Ill Patient Simulation Series, INDE 206: Practice of Medicine VI, Stanford University School of Medicine, Palo Alto, CA.
- 2022 Intern Central Line and Intubation Training, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
- 2022 Procedure Simulation Day, Ophthalmology Procedures, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
- 2022 "Receiving Feedback" Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
- 2022 Basic Procedure skills training sessions for 2nd year medical students, INDE 205: Practice of Medicine V, Stanford University School of Medicine, Palo Alto, CA.

2022	Head CT Interpretation Active Learning Training Module, collaboration with George Washington University Department of Emergency Medicine and India/Aster Emergency Medicine Residency Training Programs, virtual presentation.
2022	Procedure Simulation Day, Thoracostomy and Pigtail Catheter Placement, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2022	“Introduction to Imaging” Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2022	“Traumatic Head and Neck Imaging” Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2023	“Nontraumatic Head Imaging” Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2023	“Face and Neck Imaging” Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2023	“Imaging Overview for Interns” Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2023-2024	Radiology Pearls Didactic Sessions, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2023	“Receiving Feedback” Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2023	“Traumatic Head and Neck Imaging” Didactic Session, Stanford Emergency Medicine Residency Program, Palo Alto, CA.
2024	Cadaver Lab Session, Faculty Lead, Stanford Emergency Medicine Residency Program, Palo Alto, CA.

Hospital Appointments

2021-present	Attending Physician, Stanford University Hospital, Department of Emergency Medicine
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Administrative Appointments

2012-2013	Member of the Admissions Committee, University of Chicago Pritzker School of Medicine
2018-2021	Resident Medical Staff Committee: Diversity, Inclusion and Equity Committee member, University of California Davis Graduate Medical Education
2019	Co-coordinator for Emergency Medicine teaching workshops, University of California Davis Prep Médico Pre-medical Summer Enrichment Program
2019-2021	Student Education Coordinator for 4th year medical student emergency medicine rotation, Department of Emergency Medicine, University of California Davis
2019-2021	Diversity and Inclusion Committee, resident member, Department of Emergency Medicine, University of California Davis
2020-2021	Chief Resident, Department of Emergency Medicine, University of California Davis
2021-2022	Acting Assistant Residency Program Director, Department of Emergency Medicine, Stanford University
2021-2022	Residency Selection Committee, Department of Emergency Medicine, Stanford University
2021-2024	Clinical Competency Committee, Department of Emergency Medicine, Stanford University
2021-2024	Program Evaluation Committee, Department of Emergency Medicine, Stanford University
2022-2023	Acting Assistant Clerkship Director, Department of Emergency Medicine, Stanford University
2022-2023	External Grants Task Force Committee, Department of Emergency Medicine, Stanford University
2023-2024	Society for Academic Emergency Medicine Education Research Interest Group Committee

D. PUBLIC AND PROFESSIONAL SERVICE

Professional Societies

2018-2021	Emergency Medicine Residents’ Association (EMRA), member
2018-present	American College of Emergency Physicians (ACEP), member

2018-present Society for Academic Emergency Medicine (SAEM), member

Licensure and Certification

2015-present Medical Board of California, Physician and Surgeon License
2018-present BLS, ACLS, PALS, and ATLS certification, Provider
2022 American Board of Emergency Medicine, Board Certified

Other Leadership Activity

2017-present Co-founder of Society of Aspiring Minority Physician Leaders, a nonprofit organization to increase diversity in medical leadership.

E. HONORS AND AWARDS

Medical School

2008 Honorable Mention, University of Chicago, Pritzker School of Medicine Summer Research Forum.
2010 Howard Hughes Medical Institute NIH Research Scholars Program, 2010-2012.
2011 Intramural Research Training Award, National Institutes of Health.
2012 Selected to teach Clinical Pathophysiology and Therapeutics. University of Chicago, Pritzker School of Medicine.
2012 Chosen by faculty as one of nine senior medical students to serve as a voting member of the 2012-2013 Admissions Committee. University of Chicago, Pritzker School of Medicine.
2012 AOA - Elected to the University of Chicago, Pritzker School of Medicine Chapter of Alpha Omega Alpha Honor Medical Society.
2013 The Peter Huttenlocher and Douglas Buchanan Prize in Neurology for best medical student/clinician researcher. University of Chicago, Pritzker School of Medicine.
2013 The Association for Academic Surgery Student Research Award for outstanding performance in research in the general field of Surgery. University of Chicago, Pritzker School of Medicine.
2013 The John Van Prohaska Award for outstanding potential for a career in teaching, research and clinical medicine. University of Chicago, Pritzker School of Medicine.

Residency and Fellowship

2021 Best Resident Research Project Award, Emergency Medicine Annual Research Forum, University of California Davis.
2021 Resident MVP Award, Department of Emergency Medicine, University of California Davis.
2021 Bo Tomas Brofeldt, M.D. Humanitarian Award, Department of Emergency Medicine, University of California Davis.
2022 Master of Health Professions Education Best 501 Course Paper Award, University of Illinois at Chicago.
2023 Department Chair's Plaudit, Department of Emergency Medicine, Stanford University.
2023 Academy for Diversity and Inclusion in Emergency Medicine Scholarship for ARMED MedEd course, Society for Academic Emergency Medicine.

National

2021 SAEM/RAMS Innovative Educator Award, Society for Academic Emergency Medicine.

F. RESEARCH ACTIVITY

2008-2009	University of Chicago, Section of Plastic and Reconstructive Surgery, Raphael C. Lee, MD, ScD, "Protective effect of Poloxamer 188 against DNA damage." Research Assistant.
2009-2010	University of Chicago, Section of Neurosurgery, David M. Frim, MD, PhD, "A novel scoring system for assessing Chiari Malformation Type I treatment outcomes." Co-Investigator.
2010-2012	Laboratory of Neurogenetics, National Institute on Aging, National Institutes of Health, Huaibin Cai, PhD, "The amyotrophic lateral sclerosis protein VAPB is critical for the survival of corticospinal motor neurons." Co-Investigator.
2015-2016	University of California Los Angeles, Department of Neurosurgery, Nader Pouratian, MD, PhD, "Cortical activation, communication and connectivity during motor decision-making." Co-Investigator.
2020-2021	University of California Davis, Department of Emergency Medicine, "Rethinking Radiology for Emergency Medicine Residents: Evaluating an Active Learning Curriculum for Head CT Interpretation." Principal Investigator.
2021-2023	Stanford University, Department of Emergency Medicine, "The FAIL CT Study: Facilitating Adaptive Expertise in Learning Computed Tomography, a Multicenter Randomized Controlled Trial." Principal Investigator.
2022-present	Stanford University, Department of Emergency Medicine, "Seeing the Invisible: Using Eye-Tracking Data to Develop an Active Learning Musculoskeletal Emergency Radiology Curriculum." Principal Investigator.
2023-present	University of Illinois at Chicago, Department of Medical Education, "Learning from Errors and Using Errors for Learning: A Framework for Health Professions Education." Principal Investigator.
2024-present	Stanford University, Department of Emergency Medicine, "Exploring Resident Perceptions of Learning from Errors in Simulation." Principal Investigator.

G. GRANTS

2015	R25 Research Grant, National Institute of Neurological Disorders and Stroke, National Institutes of Health. "Cortical activation, communication and connectivity during motor decision-making."
2022	Teaching and Mentoring Academy Innovation Grant, Stanford University. "The FAIL CT Study: Facilitating Adaptive Expertise in Learning Computed Tomography, a Multicenter Randomized Controlled Trial."

H. BIBLIOGRAPHY

Peer-reviewed Publications

2012	Liu G, Aliaga L , Cai H. Alpha-synuclein, LRRK2 and their interplay in Parkinson's disease. <i>Future Neurology</i> . March 2012; 7(2):145-53. PMID: 22563296
2012	Aliaga L , Hekman KE, Yassari R, et al. A novel scoring system for assessing Chiari Malformation Type I treatment outcomes. <i>Neurosurgery</i> . March 2012; 70(3):656-64. PMID: 21849925
2012	Hekman KE, Aliaga L , Straus D, et al. Positive and negative predictors for good outcome after decompressive surgery for Chiari malformation type 1 as scored on the Chicago Chiari Outcome Scale. <i>Neurol Res</i> . Sep 2012; 34(7):694-700. PMID: 22781921
2013	Aliaga L , Lai C, Yu J, et al. Amyotrophic lateral sclerosis-related VAPB P56S mutation differentially affects the function and survival of corticospinal and spinal motor neurons. <i>Hum Mol Genet</i> . Nov 2013; 22(21):4293-305. PMID: 23771029
2014	Yang C, Wang H, Qiao T, Yang B, Aliaga L , et al. Partial loss of TDP-43 function causes phenotypes of amyotrophic lateral sclerosis. <i>Proc Natl Acad Sci USA</i> . Mar 2014; 111(12):E1121-9. PMID: 24616503
2022	Aliaga L , Clarke SO. Rethinking Radiology: An Active Learning Curriculum for Head Computed Tomography Interpretation. <i>West J Emerg Med</i> . Jan 2022; 23(1):47-51. PMID: 35060860

- 2022 Prendergast N, **Aliaga L.** Man with Right Flank Pain. *Ann Emerg Med.* Sept 2022;80(3):278. PMID: 35995517
- 2023 Hancock-Cerutti W, **Aliaga L.** Woman with right abdominal pain. *J Am Coll Emerg Physicians Open.* 2023;4(1):e12890. PMID: 36685311
- 2024 **Aliaga L,** Bavolek RA, Cooper B, et al. Error Management Training and Adaptive Expertise in Learning Computed Tomography Interpretation: A Randomized Clinical Trial. *JAMA Netw Open.* 2024;7(9):e2431600. PMID: 39250155

Digital Publications / Other Media

- 2022 Aliaga L. Exploration Before Explanation: Embracing Errors to Develop Adaptive Expertise. International Clinician Educators Blog, 4/26/2022.
<https://icenetblog.royalcollege.ca/2022/04/26/exploration-before-explanation-embracing-errors-to-develop-adaptive-expertise/>
- 2023 Society for Academic Emergency Medicine MedEd Sound Bites Podcast, "Building an Effective Medical Education Toolkit for On-Shift Teaching in the Emergency Department." Invited guest, 10/6/2023.
<https://www.saem.org/education/podcasts/meded-sound-bites-podcast>

I. INVITED PRESENTATIONS

International

- 2022 Association for Medical Education in Europe, Annual Conference, "Exploration Before Explanation: Embracing Errors to Develop Adaptive Expertise." Lyon, France (speaker)
- 2022 Grand Rounds Presentation, "You Can't Learn by Watching: Teaching Emergency Radiology Interpretation Through Active Learning." Aster Dr. Moopen's Healthcare Hospitals Department of Emergency Medicine, Calicut, Kerala, India, in collaboration with the George Washington University Department of Emergency Medicine (virtual speaker)
- 2024 Association for Medical Education in Europe, Annual Conference, "The FAIL CT Study: Facilitating Adaptive Expertise in Learning Computed Tomography, a Multicenter Randomized Controlled Trial." Basel, Switzerland (speaker)

National

- 2011 Howard Hughes Medical Institute Annual Meeting of Medical Fellows and Research Scholars, "Endoplasmic Reticulum Stress in Transgenic Mice Expressing the Amyotrophic Lateral Sclerosis 8 Mutant Protein VAPB." Chevy Chase, MD (speaker)
- 2022 University of Illinois at Chicago Department of Medical Education Master of Health Professions Education Annual Conference, "Rethinking Radiology: An Active Learning Curriculum for Head Computed Tomography Interpretation." Chicago, IL (speaker)
- 2023 Council of Emergency Medicine Residency Directors, Annual Academic Assembly, "How to Create Active Learning Radiology Curricula for Emergency Medicine Residency." Las Vegas, NV (speaker)
- 2023 Council of Emergency Medicine Residency Directors, Annual Academic Assembly, "Augmented Instruction: Digital Applications for On-Shift Teaching." Las Vegas, NV (speaker)
- 2023 Council of Emergency Medicine Residency Directors, Annual Academic Assembly, "The FAIL CT Study: Facilitating Adaptive Expertise in Learning Computed Tomography, a Multicenter Randomized Controlled Trial." Best of Best Research Abstracts, Las Vegas, NV (speaker)
- 2023 Society for Academic Emergency Medicine, Annual Conference, "Failing Spectacularly: Lessons From Medical Education Careers Just Like Yours." Austin, TX (speaker)

- 2023 Society for Academic Emergency Medicine, Annual Conference, “The FAIL CT Study: Facilitating Adaptive Expertise in Learning Computed Tomography, a Multicenter Randomized Controlled Trial.” **Plenary Session Presentation**, Austin, TX (speaker)
- 2024 Council of Emergency Medicine Residency Directors, Annual Academic Assembly, “The Secret of My Failure: A Formula for Success.” New Orleans, LA (speaker)
- 2024 Society for Academic Emergency Medicine, Annual Conference, “Calculated Response to Failure - Using Failure to Fuel Your Growth.” Phoenix, AZ (speaker)

Regional

- 2017 Stanford University Summer Community College Pre-medical Program, “Finding Your Purpose as a Physician and the Importance of Minority Physician Leaders.” Stanford, CA (speaker)
- 2018 MiMentor, Alliance in Mentorship Series, “A Deliberate Practice Method for Improving MCAT Performance.” Berkeley, CA (speaker)
- 2018 California State University East Bay Community Health Outreach Project, “Why Your Community Needs You to Become a Physician Leader.” Hayward, CA (speaker)
- 2018 De Anza College Medical Outreach Association, “Strategies to Overcome Barriers on the Path to Medical School.” Cupertino, CA (speaker)
- 2018 University of California Davis Prep Médico Pre-medical Summer Enrichment Program, “Why Your Community Needs You to Become a Physician Leader.” Sacramento, CA (speaker)
- 2018 MiMentor, Medical School Readiness Program, “How to Train for the MCAT.” Sacramento, CA (speaker)
- 2019 Stanford University Summer Community College Pre-medical Program, “Why Your Community Needs You to Become a Physician Leader.” Stanford, CA (speaker)
- 2022 Society for Academic Emergency Medicine Western Regional Conference, “Fellows Panel: Scholarship in Residency.” Stanford, CA (panelist)
- 2023 Kaiser Santa Clara Medical Center, Physician Education Series, “Embracing Errors to Develop Expertise: How to Harness the Power of Failure.” Santa Clara, CA (speaker)
- 2023 Kaiser San Francisco Medical Center, Faculty Development Series, “The Hidden Power of Failure.” San Francisco, CA (speaker)

Local

- 2018 University of California Davis Latino Medical Student Association, “Mock Interviews: Preparing for your Multiple Mini-Interviews.” Sacramento, CA (speaker and workshop)
- 2018 University of California Davis Prep Médico Pre-medical Summer Enrichment Program, “The Personal Statement as a Framework to Guide Pre-med Activities.” Sacramento, CA (speaker)
- 2019 University of California Davis Prep Médico Pre-medical Summer Enrichment Program, “How to Train for the MCAT.” Sacramento, CA (speaker)
- 2019 University of California Davis Prep Médico Pre-medical Summer Enrichment Program, “Why Your Community Needs You to Become a Physician Leader.” Sacramento, CA (speaker)
- 2019 University of California Davis Prep Médico Pre-medical Summer Enrichment Program, “Microaggressions in Medicine.” Sacramento, CA (workshop)
- 2019 University of California Davis Prep Médico Pre-medical Summer Enrichment Program, “Journeys in Emergency Medicine.” Sacramento, CA (panelist)
- 2022 Stanford Timely, Engaging, Accessible, Connected, Humane (TEACH) Conference, “SEALs: Sustainable Engaged Accountable Learners.” Stanford, CA (speaker)
- 2022 Stanford University School of Medicine, EMED 220: Emergency Medicine: Introduction, “Heroic procedures in Emergency Medicine.” Stanford, CA (speaker)

J. OTHER PRESENTATIONS

- 2008 University of Chicago Pritzker School of Medicine Summer Research Forum, "Protective Effect of Poloxamer 188 Against DNA Damage." Chicago, IL
- 2012 University of Chicago Neurosurgery Grand Rounds, "Revisiting the International Study of Unruptured Intracranial Aneurysms: What Do We Treat and Who Do We Save?" Chicago, IL
- 2015 University of California Los Angeles Neurosurgery Grand Rounds, "Basilar Artery Aneurysm, Surgical Approach and Coiling Considerations." Los Angeles, CA
- 2018 University of California Davis Emergency Medicine Academic Forum, "Visual Diagnosis Case: The Subtle and Obvious Clues to Massive PE." Sacramento, CA
- 2019 University of California Davis School of Medicine, Medical Student Specialty Choice Series, "What You Don't Know About Emergency Medicine." Sacramento, CA (panelist)
- 2019 University of California Davis Emergency Medicine Academic Forum, "Visual Diagnosis Project, Introduction Presentation for Interns." Sacramento, CA
- 2019 University of California Davis Emergency Medicine Academic Forum, "Biliary Disease Literature Review - How Good Are Our Tools?" Sacramento, CA
- 2021 University of California Davis Emergency Medicine Grand Rounds, "Uncommon Presentations of Common Ovarian Disorders." Sacramento, CA
- 2021 University of California Davis Emergency Medicine Annual Research Forum, "Rethinking Radiology for Emergency Medicine Residents: Evaluating an Active Learning Curriculum for Head CT Interpretation." Sacramento, CA
- 2022 University of Illinois at Chicago, Department of Medical Education, "Validity Evidence, A Primer for the Everyday Clinician." Chicago, IL

K. LANGUAGES

Fluent in Spanish

CV updated 9/15/24