

Gregory Asatrian



Education

Resident, Orthodontics & Dentofacial Orthopedics (2016 – Present)

Chief Resident (2016 – Present)
University of California, Los Angeles

Master of Science: Oral Biology (2016 – 2018)

Thesis: Perivascular Stem Cells Induce Paracrine-mediated Osteogenesis via Upregulation of Secreted Wnt-related Proteins
GPA: 3.98
University of California, Los Angeles

Doctor of Dental Surgery (2012 – 2016)

Omnikron Kappa Upsilon (OKU) Honor Society Member
Graduated with Honors (H) in 22 courses; Excellence in Performance (EPR) in 25 courses.
University of California, Los Angeles

Bachelor of Science: Molecular, Cellular, and Developmental Biology (2012)

Cum Laude, GPA 3.72
University of California, Los Angeles

DAT: 23, 24, 24 (98.3, 99.3, and 99.0 Percentile, respectively)

National Board Dental Examination (NBDE) 1: Pass

National Board Dental Examination (NBDE) 2: Pass

Western Regional Exam Board (WREB): Pass

Awards / Recognition

Leadership / Teaching / Scholastic

- 2013 ASDA Pre-Dental Recruitment, Finalist. *American Student Dental Association National Gold Crown Awards*
- 2014 Excellent Pre-Dental Involvement Award. *American Student Dental Association National Gold Crown Awards*
- 2014 ASDA Pre-Dental Recruitment, Finalist. *American Student Dental Association National Gold Crown Awards*
- 2014 Quon Family Scholarship. *UCLA School of Dentistry*
- 2014 Burbank Healthcare Foundation Scholarship
- 2014 Asahi-UCLA-Meikai (AUM) Japan Exchange Program Student Ambassador
- 2015 Dental Foundation of California Scholarship, *California Dental Association*
- 2015 David & Miki Lee Scholarship. *UCLA School of Dentistry*
- 2015 Dr. Riley K. Hayashi Memorial Scholarship for Orthodontics. *UCLA School of Dentistry*
- 2016 Dental Foundation of California Scholarship, *California Dental Association*
- 2016 Bob & Marion Wilson Endowed Scholarship, *UCLA School of Dentistry*
- 2016 Burbank Healthcare Foundation Scholarship
- 2016 Member of Omnikron Kappa Upsilon (OKU), National Dental Honor Society
- 2018 AAO Resident Champion, American Association of Orthodontics

Research

- 2012 Co-Author: President's Poster Award. *American Society of Bone and Mineral Research*
- 2013 Lead Author: Best Poster Presentation for a Dental Student, Finalist. *UCLA School of Dentistry Research Day*

- 2013 Co-Author: Best Abstract Awards from the Society for Bone and Soft Tissue Pathology. *USCAP*
- 2013 Lead Author: AADR Student Research Fellowship Awardee. *American Association of Dental Research.*
- 2013 Lead Author: MSC Student Travel Grant Awardee. *Mesenchymal Stem Cells Conference*
- 2014 Lead Author: Best Pediatric / Developmental Biology Abstract. *Academic Surgical Congress*
- 2014 Lead Author: 1st Place Outstanding Medical Student Award. *Association of Academic Surgery*
- 2014 Co-Author: Hatton Price Awardee, Finalist. *American Association of Dental Research*
- 2014 Lead Author: UCLA ADA/DENTSPLY Student Clinician Research Program Awardee. *ADA/Dentsply*
- 2015 Lead Author: AADR/NIDCR Bloc Travel Grant Recipient. *American Association of Dental Research*
- 2016 Lead Author: Best Poster Presentation for a Dental Student, Finalist. *UCLA School of Dentistry Research Day*

Professional Titles

Leadership

- 2012 – Present **American Dental Education Association (ADEA) || Class of 2016 Representative**
Promoted ADEA Membership and announced recent publications. Served as a point-person for all PASS-related questions/concerns.

- 2013 – Present **Orthodontic Study Club || President**
Founded and organized events to mentor students interested in orthodontics. Designed club logo, created club attire, and reached record # of events. Founded the wire-bending tutorial workshop.

- 2012 – 2014 **Pre-Dental Outreach Committee of American Student Dental Association || Committee Chair**
Provided mentorship and guidance to pre-dental societies of over 20 California universities. Hosted numerous pre-dental workshops & co-founded a novel all-day application preparation event, "Core Build-Up Day." Presented 24 lectures.

- 2014 – Present **Leadership & Developmental Committee of American Student Dental Association || Committee Chair**
Guided & mentored present student leaders in the UCLA ASDA. Hosted numerous leadership retreats to educate school leaders about the tenets of leadership.

- 2014 – Present **Dean's Leadership Institute || Trainee**
Participated in organization aimed to prepare future leaders and dentist to meet the demands of the profession, be it practice, organized dentistry, academic dentistry.

- 2014 – Present **UCLA Advanced Orthodontic Track || Chief Trainee**
Organized, coordinated, and participated in a number of orthodontic tutorials taught by residents and faculty. Attended weekly/quarterly orthognathic/craniofacial seminars.

- 2016 – Present **UCLA Orthodontics || Chief Resident**
Served as class liason between resident class and administration. Collaborated with vendors and speakers to organize events, lectures, and trips for resident class. Collected donations from alumni and vendors for Section events and improvements.

- 2017 – 2018 **American Association of Orthodontics || UCLA Resident Champion**
Served as liason between UCLA Orthodontics and the American Association of Orthodontics. Encouraged student membership and attendance to the AAO, as well as participation in morale events between residents at different programs.

Teaching

- 2017 – Present **Armenian American Medical Society || Continuing Education Speaker**
Serve as lecturer for AAMS and provide biannual lectures for dental continuing education credit.
- 2013 – Present **NIH/NIDCR R25 (UCLA Academic Track) || Trainee**
Trainee of teaching apprenticeship funded by NIH/NIDCR for future dentist aimed to provide hands-on experience in didactic and pre-clinical instruction, guided by close mentorship of key faculty. Presented 2 lectures.
- 2013 – 2016 **Basic Dental Principles (BDP) || Laboratory Course Coordinator and Course Chair**
Chaired and lectured in a two-year pre-dental course / dental teaching apprenticeship. Course sought to provide pre-dental students with the opportunity to learn about the intricacies of dentistry and strengthen their interest in the field. Presented 5 lectures.
- 2013 **Summer Medical & Dental Education Program || Laboratory Course Coordinator**
Chaired, organized and lectured for the dental section of a summer pre-health program for undergraduate students. Presented 1 lecture; hosted laboratory lesson.

Research

- 2012 – Present **Drs. Kang Ting & Chia Soo Laboratory || Research Assistant**
University of California, Los Angeles, School of Dentistry
Focuses of Study: Mesenchymal Stem Cells, Bone Tissue Engineering, Osteoporosis
- 2012 – Present **Dr. Christine Hong Laboratory || Biomedical Illustrator**
University of California, Los Angeles, School of Dentistry
Focuses of Study: Bone Remodeling / Formation, Mini-Implants
- 2013 – Present **Dr. Aaron W James Laboratory || Biomedical Illustrator / Research Assistant**
University of California, Los Angeles, School of Medicine
Johns Hopkins University, Medical Center
Focuses of Study: Perivascular Stem Cells / Soft Tissue Pathology

Journal Publications

1. James AW, Zara JN, Corselli M, Askarinam A, Zhou AM, Hourfar A, Nguyen A, Megerdichian S, **Asatrian G**, Pang S, Stoker D, Zhang X, Wu B, Ting K, Peault B, Soo C. An abundant perivascular source of stem cells for bone tissue engineering. *Stem Cells Translational Medicine*. 2012 Sep;1(9):673-84. PMID: 21397874
2. **Asatrian G** *, Yuan W*, James AW*, Shen J, Zara JN, Tian HJ, Siu RK, Zhang X, Wang CJ, Dong J (*co-first authors). A NELL-1-based bone graft substitute for rat posterolateral spinal fusion. *Journal of Orthopaedic Science*. 2013 Jul;18(4):646-57. PMID: 23793377
3. Hong C, Song HN, Banh R, Ohebsion T, **Asatrian G**, Leung HY, Wu BM, Moon W. Mechanical Stability and Clinical Applicability Assessment of Novel Orthodontic Mini-Implant Design: Part 3. *The Angle Orthodontist*. 2013 Sep;83(5):832-41. PMID: 23627420
4. Shen J, James AW, Zara JN, **Asatrian G**, Chung J, Zhang JB, Ho S, Kim HJ, Khadarian K, Ting K, Soo C. NELL-1 suppresses BMP2 induced inflammation in vitro and in vivo. *Tissue Engineering*. 2013 Nov;19(21-22):2390-401. PMID: 23758588

5. Marco M, **Asatrian G**, Soo C, Lugassay C, Barnhill RL, Dry SM, Peault B, James AW. From Pericytes to Perivascular Tumors: Correlates between Pathology, Stem Cell Biology, and Tissue Engineering. *International Orthopaedics*. 2014 Sep;38(9):1819-24. PMID: 24566993
6. James AW, Shen J, Khadarian K, Pang S, Chung CG, Goyal R, **Asatrian G**, Velasco O, Zhang X, Ting K, Soo C. Lentiviral encoded PPAR γ . *Tissue Engineering Part A*. 2014 Oct;20(19-20):2699-710. PMID: 24785569
7. Chung CG, James AW, **Asatrian G**, Chang L, Liang P, Le K, Bayani G, Pan A, Stoker D, Zhang X, Ting K, Peault B, Soo C. Perivascular stem cells induce bone formation and rigid spine fixation by direct and paracrine mechanisms. *Stem Cells Translational Medicine*. 2014 Oct;3(10):1231-41. PMID: 25154782
8. Velasco O, James AW, **Asatrian G**, Ajalat M, Pritchard T, Novshadian S, Murthy A, Bayani G, Zhang X, Ting K, Soo C. High Resolution X-Ray, a Reliable Approach for Quantifying Osteoporosis in Rodent Model. *BioResearch Open Access*. 2014 Aug;3(4):129-6. PMID: 25126483.
9. Chang L, **Asatrian G**, Dry SM, James AW. Circulating Tumor Cells in Sarcomas: A Brief Review. *Medical Oncology*. 2015 Jan;32(1):430. PMID: 25491143
10. **Asatrian G**, Pham D, Hardy RW, James AW, Peault B. Stem Cell Technology for Bone Regeneration: Current Status and Potential Applications. *Journal of Stem Cells and Cloning: Advances and Applications*. 2015 Feb;8:27-38. PMID: N/A
11. Dasy H, Dasy A, **Asatrian G**, Rozsa N, Lee HF, Kwak JH. Influence of Variable Attachment Shapes and Aligner Material on Aligner Retention. *The Angle Orthodontist*. 2015 Nov;85(6):934-40. PMID: 26516708
12. Scott MA, Shen J, Lam K, Yen YH, Shrestha S, Mravic M, **Asatrian G**, Chung CG, Lugassy C, Barnhill RL, Dry SM, Peault B, James AW. Pericytes and perivascular stem cells in tumor biology. *Int J Ortho*. 2014 Oct. PMID: N/A
13. James AW, Shen J, Zhang X, **Asatrian G**, Goyal R, Bengs B, Culiati CT, Turner AS, Seim HB III, Lyons K, Adams JS, Ting K, Soo C. NELL-1 in the Etiopathogenesis and Treatment of Osteoporotic Bone Loss. *Nature Communications*. 2015 Jun;6:7362. PMID: 26082355
14. Shen J, Shrestha S, Yen YH, Scott MA, **Asatrian G**, Barnhill R, Lugassy C, Soo C, Ting K, Peault B, Dry SM, James AW. Pericyte Antigens in Angiomyolipoma and PEComa family tumors. *Medical Oncology*. 2015 Aug;32(8):210. PMID: 26123600
15. Shen J, Shrestha S, Yen YH, **Asatrian G**, Mravic M, Soo C, Ting K, Dry S, Peault B, James AW. Pericyte antigens in perivascular soft tissue tumors. *International Journal of Surgical Pathology*. 2015 Dec;23(8):638-48. PMID: 26085647
16. Shen J, LaChaud G, Shrestha S, **Asatrian G**, Zhang X, Dry SM, Soo C, Ting K, James AW. NELL-1 expression in tumors of cartilage. *Journal of Orthopaedics*. 2015 Oct. PMID: 27047227
17. James AW, LaChaud G, Shen J, **Asatrian G**, Zhang X, Ting K, Soo C. A Review of the Clinical Side Effects of Bone Morphogenetic Protein-2. *Tissue Eng Part B. Invited review*. 2016 Feb. PMID: 26857241
18. Shen J, James AW, Zhang X, Pang S, **Asatrian G**, Chiang M, Lee M, Khadarian K, Nguyen A, Lee KS, Siu RK, Tetradis S, Ting K, Soo C. Novel Wnt regulator NEL-Like Molecule-1 Antagonizes Adipogenesis and Augments Osteogenesis Induced by Bone Morphogenetic Protein 2. *American Journal of Pathology*. 2016 Feb. PMID: 26772960

19. Chang L, Meyers CA, **Asatrian G**, Shen J, Scott MA, James AW. Basic and translational research in osteosarcoma: A year in review. *SM J Orthop. Special Issue- Bone Tumors*. 2016 Mar. *Invited submission*. PMID: N/A
20. Shen J, Shrestha S, Rao NP, **Asatrian G**, Scott MA, Nguyen V, Giacomelli P, Soo C, Ting K, Eilber FC, Peault B, Dry SM, James AW. Pericytic mimicry in well-differentiated liposarcoma / atypical lipomatous tumor. *Human Pathology*. Apr 2016; PMID: 27063472.
21. **Asatrian G***, James AW*, Chiang M*, Goyal R, Chung CG, Shen J, Chang L, Turner AS, Seim HB, Zhang X, Wu BM, Ting K, Soo C (*co-first authors). Vertebral implantation of NELL-1 enhances bone formation in an osteoporotic sheep model. *Tissue Eng Part A*. Apr 2016; PMID: 27113550.
22. Shen J, Meyers CA, Shrestha S, Singh A, LaChaud G, Nguyen V, **Asatrian G**, Lederman N, Eilber FC, Dry SM, Ting K, Soo C, James AW. Sclerostin expression in skeletal sarcomas. *Human Pathology*. Aug 2016; PMID: 27498059
23. James AW, Hindle P, Murray IR, West CC, Tawonsawatruk T, Shen J, **Asatrian G**, Zhang X, Nguyen V, Simpson AH, Ting K, Soo C. Pericytes for the treatment of orthopaedic conditions. *Pharmacology and Therapeutics*. Aug 2016; PMID: 27510330
24. Lee S, Pan HC, Shrestha S, Shen J, **Asatrian G**, Nguyen A, Lee M, Soo C, Ting K, James AW. Calvarial Defect Healing Induced by Small Molecule Smoothened Agonist. *Tissue Eng Part A*. PMID: 27702396
25. Shen J, Chen X, Jia H, Meyers CA, Shrestha S, **Asatrian G**, Tsuei R, Zhang X, Peault B, Ting K, Soo C, James AW. Effects of WNT3A and WNT16 on the osteogenic and adipogenic differentiation of perivascular stem/stromal cells. *Tissue Eng Part A*. Apr 2017. PMID: 28463594
26. James AW, Zhang X, Crisan M, Hardy WR, Meyers CA, Lobo S, Lagishetty V, Childers MK, **Asatrian G**, Ding C, Yen YH, Zou E, Ting K, Peault B, Soo C. Isolation and characterization of canine perivascular stem/stromal cells for bone tissue engineering. *PLOS ONE*. PMID: 28489940
27. Meyers CA, Xu J, Zhang L, **Asatrian G**, Ding C, Yan N, Broderick K, Sacks J, Goyal R, Zhang X, Ting K, Peault B, Soo C, James AW. Early immunomodulatory effects of implanted human perivascular stromal cells during bone formation. *Tissue Eng Part A*. PMID: 28683667
28. James AW, Shen J, Tsuei R, Nguyen A, Khadarian, K, Meyers C, Pan H, Li W, Kwak J, **Asatrian G**, Culiati C, Lee M, Ting K, Zhang X, Soo C. NELL-1 induces Sca-1-positive mesenchymal progenitor cell expansion in models of bone maintenance and repair. *Journal of Clinical Investigation*. PMID: 28614787
29. Li C, Zheng Z, Zhang X, Asatrian G, Chen E, Song R, Culiati C, Ting K, Soo C. Nfatc1 is a functional transcriptional factor mediating Nell-1-responded Runx3 upregulation in chondrocytes. *International Journal of Molecular Sciences*. PMID: 29316655
30. Li C, Zheng Z, Ha P, Chen X, Jiang W, Sun S, Chen F, **Asatrian G**, Berthiaume E, Jong KK, Chen E, Pang S, Zhang X, Ting K, Soo C. Neurexin Superfamily Cell Membrane Receptor Contactin-Associated Protein Like-4 (Cntnap4) is Involved in Neural EGFL Like 1 (Nell-1)-responsive Osteogenesis. *JBMR*. PMID: 29905970
31. Marzvanyan A, Chen V, Zhang B, **Asatrian G**. Herbal Medicine in the Mitigation of ROS, Autophagy and Cancer: A Review. *Critical Review in Oncogenesis*. 2018. PMID: 30311564

32. Meyers CA, Xu J, **Asatrian G**, Ding C, Shen J, Broderick K, Ting K, Soo C, Peault B, James AW. WISP-1 Drives Bone Formation at the Expense of Fat Formation in Human Perivascular Stem Cells. *Scientific Reports*. PMID: 30353078
33. Meyers CA, Xu J, Zhang L, Chang LL, Wang Y, **Asatrian G**, Ding C, Yan N, Zou E, Broderick K, Lee M, Peault B, James AW. Skeletogenic capacity of human perivascular stem cells obtained via magnetic activated cell sorting. *Tissue Engineering, Part A*. PMID: 31020920.

Book Chapters

1. **Asatrian G**, Chang L, James AW. Muscle Pouch Implantation: An Ectopic Bone Formation Model. *Methods in Molecular Biology*. 2014 Sept;1213:185-91. PMID: 25173383.
2. **Asatrian G**, Pan A, Scott MA, James AW. Ch. 15, Safety Assessment in Mesenchymal Stem Cell Implantation. *Frontiers in Stem Cell and Regenerative Medicine Research*. 2015 Oct;1:3-29. PMID: N/A
3. Santamaria A, **Asatrian G**, Chen WCW, James AW, Hardy W, Caplan A, Soo C, Peault B. Ch. 15 Nature or nurture: Mesenchymal stem cells for tissue regeneration. *Advances in Translational Medicine. Part IV: Cell Therapies and Other Applications*. 2015. PMID: N/A
4. Shen J, Nguyen V, Scott MA, **Asatrian G**, Shrestha S, Soo C, Ting K, Dry SM, Peault B, James AW. Pericyte antigens in mesenchymal tumors. *Soft Tissue Tumors, SM Scientific Resources*. 2015 Nov. PMID: N/A

Grants

1. American Association of Dental Research Student Research Fellowship. Perivascular Stem Cells promote bone formation in rat critical-sized Mandibular Segmental Defects. 03/13-03/15. Role: Recipient. Mentor: Kang Ting, DMD, DMedSci

Oral Presentations

1. Chung G, James AW, **Asatrian G**, Liang P, Stoker D, Zhang X, Ting K, Peault B, Soo C. Perivascular stem cells accelerate bone regeneration in a rat spinal fusion model. *Gordon Research Conference*, Aug 2012.
2. James AW, Shen J, Velasco O, **Asatrian G**, Chung CG, Khadarian K, Zhang Y, Chang L, Goyal R, Kim J, Zhang X, Adams JS, Ting K, Soo C. Systemic administration of NELL-1, a Wnt/Beta catenin regulator, induces bone formation in osteoporotic mice via Integrin beta1. *American Society of Bone and Mineral Research*, Oct 2013.
3. James AW, Chung CG, **Asatrian G**, Velasco O, Halperin D, Park KW, Bayani G, Khadarian K, Zhang X, Ting K, Tontonoz P, Soo C. The oral small molecule phenamil regulates BMP signaling and prevents ovariectomy-induced osteoporosis. *American Society of Bone and Mineral Research*, Oct 2013.
4. **Asatrian G**, James AW, Zhang Y, Chung CG, Velasco O, Zhang X, Ting K, Soo C. Systemic delivery of chemically modified NELL-1 promotes bone formation in osteoporotic mice. *9th Annual Academic Surgical Congress*, Feb 2013.
5. James AW, Shen J, Velasco O, **Asatrian G**, Chung CG, Khadarian K, Zhang Y, Chang L, Goyal R, Kim J, Zhang X, Adams J, Ting K, Soo C. Systemic administration of NELL-1, a Wnt/B-Catenin regulator, induces bone formation in osteoporotic mice via IntegrinB1. *8th Bone Research Seminar*, Feb 2014.

6. Kwak J, Zhang Y, James AW, Shen J, **Asatrian G**, Chung CG, Velasco O, Chawan C, Khalilinejad K, Nguyen A, Chang L, Lee KS, Bayani P, Dolatyar S, Zhang X, Soo C, Ting K. PEGylation increases NELL-1 Half-life and promotes osteogenesis locally and systemically. *American Association of Dental Research*, Mar 2014.
7. **Asatrian G**, James AW, Zhang Y, Kwak JH, Chung C, Velasco O, Zhang X, Wu BM, Soo C, Ting K. Intravenous NELL-1 therapy promotes bone formation in osteoporotic mice. UCLA's Society of Biomaterials, Nov 2013. Invited lecture.
8. **Asatrian G**, James AW, Zhang X, Shen J, Nguyen A, Kwak J, Chung CG, Peault B, Soo C, Ting K. Implanted perivascular stem cells with NELL-1 synergistically promote bone formation. *American Association of Dental Research*, Feb 2015.
9. Shen J, Shrestha S, Meyers CA, LaChaud G, **Asatrian G**, Singh A, Federman N, Dry SM, Ting K, Soo C, James AW. Sclerostin expression and biologic function in skeletal sarcomas. Orthopaedic Research Seminar, Aug 2015.
10. James AW, Shen J, **Asatrian G**, Shrestha S, Wu B, Zhang X, Ting K, Soo C. NELL-1 induces expansion of Sca-1+ mesenchymal stem cell population for bone formation from small to large animal models. *American Society of Bone and Mineral Research*, Apr 2015.
11. **Asatrian G**. UCLA Basic Dental Principles (BDP) Teaching Apprenticeship. *American Dental Education Association*, Mar 2016.
12. **Asatrian G**, Shen J, Meyers CA, Ding C, Zhang X, Peault B, Soo C, James AW*, Ting K*. Wnt16: Enhanced and Integral in Perivascular Progenitor Cell Osteogenic Differentiation. *International Association of Dental Research*, Mar 2017.
13. Meyers CA, Hardy WR, Hindle P, **Asatrian G**, Crisan M, Yan N, Lobo S, Liang P, Zhang X, Ting K, Soo C, Peault B, James AW. Conservation of perivascular progenitor cell antigens and methods of isolation across mammalian species. *American Society of Bone and Mineral Research*. 2017
14. Ding C, Xu J, Meyers C, Zhang L, Chang L, **Asatrian G**, Yan N, Broderick K, Peault B, James AW. Bone regeneration using perivascular stem cell-derived extracellular vesicles. *American Association of Dental Research*. Mar 2018.

Poster Presentations

1. Pan A, James AW, Shen J, Zhang X, Askarinam A, Goyal R, Nguyen A, Rackohn T, **Asatrian G**, Soofer D, Culiati CT, Adams JS, Soo C, Ting K. NELL-1 has Pro-osteogenic and Anti-resorptive Effects in Bone Marrow Mesenchymal Stromal Cells. *UCLA Science Poster Day*, May 2012.
2. Kim TM, James AW, Goyal R, Chiang M, Chung C, **Asatrian G**, Zhang X, Zara JN, Nguyen A, Turner AS, Seim HB 3rd, Ting K, Soo C. NELL-1 protein as an anabolic and anti-resorptive agent in an osteoporotic sheep model. *American Society of Bone and Mineral Research*, Oct 2012.
3. James AW, Shen J, Zhang X, Kim TM, Le K, Nguyen A, Rackohn T, **Asatrian G**, Soofer D, Culiati CT, Adams JS, Ting K, Soo C. A new protective function of Nell-1 against osteoporosis by activation of Wnt/Beta-catenin signaling. *American Society of Bone and Mineral Research*, Oct 2012.

4. **Asatrian G**, James AW, Chung CG, Zhang Y, Stoker D, Zhang X, Ting K, Peault B, Soo C. Perivascular stem cells (PSCs) induce rat posterolateral lumbar spinal fusion. *Orthopaedic Research Society*, Jan 2013.
5. Chang L, **Asatrian G**, Chung CG, James AW. Human Perivascular Stem Cells Induce Bone Regeneration In A Rat Spinal Fusion Model. *Advancing Science Serving Society*, Feb 2013.
6. **Asatrian G**, James AW, Chung CG, Nguyen A, Zhang X, Peault B, Soo C, Ting K. Perivascular stem cells promote osteogenesis in ectopic and orthotopic models. *UCLA School of Dentistry Research Day*, February 2013.
7. Megerdichian S, James AW, Zara JN, Corselli M, Askarinam A, Zhou AM, Hourfar A, Nguyen, **Asatrian G**, Pang S, Stoker D, Zhang X, Wu B, Ting K, Peault B, Soo C. Adipose-derived perivascular stem cells heal critical sized mouse calvarial defect. *UCLA School of Dentistry Research Day*, February 2013.
8. James AW, Chung CG, **Asatrian G**, Velasco O, Pan A, Nguyen A, Liang P, Stoker D, Ting K, Peault B, Soo C. Perivascular stem cells induce bone formation and vasculogenesis in ectopic and bone injury models. *United States and Canadian Academy of Pathology*, March 2013.
9. **Asatrian G**, Chung CG, James AW, Liang P, Stoker D, Ting K, Peault B, Soo C. Human perivascular mesenchymal stem cells promote lumbar spinal fusion via induction of osteogenesis and vasculogenesis. *International Association for Dental Research*, March 2013.
10. Kwak J, Chiang M, Ngo R, Le K, **Asatrian G**, Chung CG, Moon C, Tetradis S, Zhang X, Ting K, Soo C. Novel MicroCT-based Analysis Method for Regenerative Studies using Osteoporosis Model. *International Association for Dental Research*, March 2013.
11. Zara JN, James AW, Shen J, Goyal R, **Asatrian G**, Zhang X, Ting K, Soo C. Improvement of Osteoporotic Bone Quality Through Regulation of Osteoblast Activity and Wnt/ β -catenin Signaling Using NELL-1. *American College of Physicians*, April 2013.
12. Nguyen A, James AW, Chung CG, **Asatrian G**, Chang L, Liang P, Stoker D, Zhang X, Peault B, Soo C, Ting K. Human Perivascular Stem Cells Induce Bone Regeneration in A Rat Spinal Fusion Model. *UCLA Science Poster Day*, May 2013.
13. Le Chang, **Asatrian G**, Chung CG, James AW, Ting K. Human Perivascular Stem Cells Induce Bone Regeneration In A Rat Spinal Fusion Model. *UCLA Science Poster Day*, May 2013.
14. James AW, Chung CG, **Asatrian G**, Chang Le, Askarinam A, Zhang X, Ting K, Peault B, Soo C. Perivascular stem cells promote bone formation and angiogenesis in ectopic and bone injury models. *Military Health System Research Symposium*, Aug 2013.
15. **Asatrian G**, James AW, Chung CG, Velasco O, Zhang X, Ting K, Soo C. Systemic administration of the osteoinductive growth factor NELL-1 promotes bone formation in osteoporotic Mice. *Military Health System Research Symposium*, Aug 2013.
16. James AW, **Asatrian G**, Chung CG, Zhang X, Ting K, Peault B, Soo, C. Purified perivascular stem cells induce improved osteogenesis and vasculogenesis in bone injury models. *Mesenchymal Stem Cells*, Aug 2013.

17. James AW, Chung CG, **Asatrian G**, Kim J, Zhang X, Ting K, Peault B, Soo C. Development of a combination product for improved bone tissue regeneration: perivascular stem cells + NELL-1. *Mesenchymal Stem Cells*, Aug 2013.
18. James AW, Shen J, Khadarian K, Pang S, Chung CG, Goyal R, **Asatrian G**, Zhang X, Ting K, Soo C. Lentiviral delivered PPARgamma shRNA improves bone microarchitecture by altering the balance of osteogenesis and adipogenesis. *United States and Canadian Academy of Pathology*, March 2014.
19. James AW, Shen J, Khadarian K, Pang S, Nguyen A, Chang L, **Asatrian G**, Nguyen T, Kim J, Zhang X, Ting K, Soo C. Lentiviral delivered PPARgamma shRNA improves bone microarchitecture after intramedullary injection. *Orthopaedic Research Society*, Mar 2014.
20. James AW, **Asatrian G**, Zhang Y, Shen J, Chung CG, Bayani P, Zhang X, Ting K, Soo C. Chemical Modification of NELL-1 Protein for Systemic Treatment of Osteoporosis in Mice . *Orthopaedic Research Society*, Mar 2014.
21. Shen J, James AW, **Asatrian G**, Nguyen A, Chang Le, Li X, Zhang X, Ting K, Soo C. The osteoinductive growth factor NELL-1 also has anti-osteoclastic effects, likely via direct and indirect mechanisms. *Orthopaedic Research Society*, Mar 2014.
22. **Asatrian G**, James AW, Shen J, Kwak J, Chung CG, Velasco O, Nguyen A, Chang L, Chawan C, Bayani G, Dolatyar S, Zhang X, Soo C, Ting K. Intravenous NELL-1 Therapy Reverses Osteoporotic Bone Loss via IntegrinB1. *American Association of Dental Research*, Mar 2014.
23. Kwak J, Zhang Y, James AW, Shen J, **Asatrian G**, Chung CG, Velasco O, Chawan C, Khalilnejad K, Nguyen A, Chang L, Lee KS, Bayani P, Dolatyar S, Zhang X, Soo C, Ting K. PEGylation increases NELL-1 Half-Life and Promotes Osteogenesis Locally and Systemically. *American Association of Dental Research*, Mar 2014.
24. Chung CG, Kwak J, Velasco O, **Asatrian G**, James AW, Sukhija K, Kim S, Chang L, Nguyen A, Chawan C, Chiang M, Ajalat M, Pritchard T, Bayani P, Kim JH, Lee KS, Hardy RW, Lagishetty V, Zhang X, Peault B, Soo C, Ting K. Perivascular Stem Cells With NELL-1 Protein Induce Robust Spinal Fusion. *American Association of Dental Research*, Mar 2014.
25. Nguyen A, **Asatrian G**, Chung CG, Chang L, Scott MA, Velasco O, Bayani P, Dolatyar S, Pritchard T, Ajalat M, Zhang X, Soo C, Tontonoz P, Ting K. Orally administered Phenamil prevents the onset of ovariectomy-induced osteoporosis. *American Association of Dental Research*, Mar 2014.
26. Kwak J, Zhang Y, James AW, Shen J, **Asatrian G**, Chung CG, Velasco O, Chawan C, Khalilnejad K, Nguyen A, Chang L, Lee KS, Bayani P, Dolatyar S, Zhang X, Soo C, Ting K. PEGylation increases NELL-1 Half-Life and Promotes Osteogenesis Locally and Systemically. *International Association of Dental Research*, Jun 2014.
27. **Asatrian G**, James AW, Chung CG, Velasco O, Zhang X, Ting K, Soo C. Systemic administration of the osteoinductive growth factor NELL-1 promotes bone formation in osteoporotic Mice. *Southern California AADR Poster Session*, Jul 2014.
28. **Asatrian G**, Kwak JH, Zhang Y, Park J, Chawan C, James AW, Shen J, Khalilnejad K, Velasco O, Malakootian M, Zhang X, Ting K, Soo C. Intravenously administered PEG-NELL-1 promotes bone formation and density. *Military Health Science Research Symposium*, Aug 2014.

29. Zhang Y, Kwak JH, Park J, Chawan C, Velasco O, Khalilinejad K, Shen J, Chen C, Bayani P, Dolatyar S, **Asatrian G**, Zhang X, Soo C, Wu B, Ting K. PEGylation of NELL-1 Improves Pharmacokinetics and Systemic Osteogenic Therapy. *American Society of Bone and Mineral Research*. Sept 2014.
30. **Asatrian G**, James AW, Wu BM, Zhang X, Soo C, Ting K. NELL-1: A novel systemic therapy to reverse osteoporotic bone loss. *American Dental Association National Meeting*. Oct 2014.
31. **Asatrian G**, Wu BM, Soo C, Ting K. NELL-1: A novel systemic therapy to reverse osteoporotic bone loss. *UCLA School of Dentistry Clinic Pride Day*. Oct 2014.
32. LaChaud G, Shen J, Khadarian K, **Asatrian G**, Zhang X, Dry SM, Ting K, Soo C, James AW. The Correlation of Malignant Potential with NELL-1 Expression in Benign and Malignant Bone Tumors. *Orthopaedic Research Seminar*. Mar 2015.
33. Shen J, LaChaud G, Shrestha S, Zhang X, **Asatrian G**, Soo C, ting K, Dry SM, James AW. The osteoinductive protein NELL-1 is associated with Wnt/B-Catenin signaling and osteogenic differentiation in benign but not malignant bone tumors. *United States and Canadian Academy of Pathology*, Mar 2015.
34. Shen J, Shrestha S, **Asatrian G**, Ting K, Soo C, Dry S, Peault B, Adams J, James AW. Pericyte differentiation with mesenchymal tumors. *UCLA STAR Conference*, Sept 2015.
35. James AW, Shen J, **Asatrian G**, Shrestha S, Wu B, Zhang X, Ting K, Soo C. NELL-1 induces expansion of Sca-1+ mesenchymal stem cell population for bone formation from small to large animal models. *American Society of Bone and Mineral Research*, Apr 2015.
36. **Asatrian G** Shen J, Meyers CA, Peault B, Soo C, Ting K, James AW. WISP-1 Promotes Osteogenesis of Perivascular Stem Cells. *UCLA School of Dentistry Research Day*, Feb 2016.
37. Shen J, Shrestha S, Meyes CA, LaChaud G, **Asatrian G**, Singh A, Federman N, Dry SM, Ting K, Soo C, James AW. Sclerostin Expression and Biologic Function in Skeletal Sarcomas. *Orthopaedic Research Seminar*. Mar 2016.
38. Meyers CA, Shen J, Shrestha S, **Asatrian G**, LaChaud G, Nguyen V, Singh A, Federman N, Dry SM, Ting K, Soo C, James AW. The Wnt Signaling Antagonist Sclerostin in Osteosarcoma. *United States and Canadian Academy of Pathology*, Mar 2016.
39. Lee S, Pan D, Nguyen A, Shen J, Shrestha S, **Asatrian G**, Bernthal N, Ting K, Soo C, James AW. Smoothened agonist (SAG) induced mouse calvarial defect healing. *American Society of Bone and Mineral Research*, Sept 2016.
40. Shen J, Meyers CA, **Asatrian G**, Hardy R, Zhang X, Peault B, Ting K, Soo C, James AW. WNT16 is enriched among perivascular progenitor cells, inducing stem cell proliferation and osteodifferentiation. *American Society of Bone and Mineral Research*, Sept 2016.
41. Meyers CA, Hardy WR, **Asatrian G**, Hindle P, Crisan M, Yan N, Liang P, Zhang X, Ting K, Soo C, Peault B, James AW. New advances in perivascular progenitor cell directed bone regeneration. *Military Health Science Research Symposium*, Aug 2017.

42. **Asatrian G**, Meyes C, Xu J, Chang L, Zhang L, Ding C, Broderick K, Ting K, Peault B, James AW. Magnetic bead-based derivation of Human Perivascular Stem/Progenitor Cells. *American Association of Dental Research*. Mar 2018.
43. **Asatrian G**, Fraser A, Zhang B, Sfogliano L, Ting K, Moon W. Extraction and Distalization for Correction of Full Cusp Class 2 in Adult with Midpalatal TAD. *World Implant Orthodontic Conference*. Sept 2018
44. Zhang B, Bar E, Fraser A, **Asatrian G**, Sfogliano L, Elkenawy I, Moon W. Non-surgical Treatment of Severe Anterior Open Bite with Tongue Habit using Temporary Anchorage Devices. *World Implant Orthodontic Conference*. Sept 2018
45. Fraser A, **Asatrian G**, Zhang B, Sfogliano L, Elkenawy I, Moon W. Treatment of Asymmetric Skeletal Class 3 Adult with Maxillary Skeletal Expander (MSE) and Facemask. *World Implant Orthodontic Conference*. Sept 2018

Lecturing / Teaching Experience

- 2012 – 2013 **Pre-Dental Survivor Series**; Audience: Pre-Dental Society of following universities (independent events): University of California, Los Angeles; Cal Poly San Luis Obispo; University of California, Irvine; University of California, Santa Barbara; Fresno State; University of California, Riverside; Cal State Northridge.
- May 2013 **Preparing for the Upcoming Application Cycle**; Audience: UCLA Pre-Dental Society.
- May 2013 **Interview with Confidence (Core Build-Up Day)**; Audience: UCLA ASDA Pre-Dents.
- 2013 – 2014 **Benefits of ASDA Membership**; Audience: Pre-dental society of following universities (independent events): University of California, Los Angeles; University of California, Irvine; University of California, Riverside; University of California, San Diego; Pasadena City College; Cal Poly San Luis Obispo; Cal State Sacramento; University of Southern California; Cal Lutheran University; University of California, Berkeley; Claremont Universities
- Nov 2013 **Waxing a #9 Full Coverage Crown**; Audience: UCLA ASDA Pre-Dental Students
- Feb 2014 **How to Perform a PFM Preparation**; Audience: Basic Dental Principles Laboratory Class
- Mar 2014 **What is Scaling and Why Do We Do It?**; Audience: UCLA ASDA Pre-Dental Students
- Mar 2014 **Preparing an Informative and Presentable Research Poster**; Audience: UCLA School of Dentistry National Student Research Group
- April 2014 **How to Perform a Class I Preparation**; Audience: Basic Dental Principles Laboratory Course
- May 2014 **Personal Statements: The Dos and Don'ts**; Audience: 3rd and 4th Year ASDA Pre-Dental Students
- May 2014 **En Route to DDS & Beyond**; Audience Basic Dental Principles Lecture Class
- Oct 2014 **Three Tenets of Successful Leadership**; Audience: UCLA ASDA Committee Chairs
- Dec 2014 **Understanding and Utilizing your MBTI**; Audience: UCLA NIH/NIDCR R25 Academic Track

Dec 2014	Organizing and Polishing your Curriculum Vitae (CV); Audience: UCLA ASDA Committee Chairs
Mar 2015	Prepare yourself for PASS: The Post-Graduate Application Process/Portal; Audience: UCLA School of Dentistry
Mar 2015	University Life at UCLA & America; Audience: Asahi University, Japan
June 2015	Introduction to Craniofacial Patients; Audience: Basic Dental Principles Lecture Class
Mar 2016	Introduction to Craniofacial Patients; Audience: Basic Dental Principles Lecture Class
April 2016	Prepare yourself for PASS: The Post-Graduate Application Process/Portal; Audience: UCLA School of Dentistry
Aug 2016	Introduction to the UCLA Orthodontic Residency Program; Audience: Asahi University and Meikai University Japan Exchange Students
Sept 2016	Orthodontic Application/Interview Advice; Audience: UCLA Orthodontic Study Club
Feb 2017	Hello from the other side; Audience: UCLA Pre-Dental Society Outreach Program
Mar 2017	Harnessing 3D Technology in Orthodontics; Audience: Armenian American Medical Society (CME/CDE accredited course)
Sept 2017	Expectations, Deviations, and Interventions in the Development of Occlusion; Audience: Armenian American Medical Society (CME/CDE accredited course)
Nov 2017	Facets of Dentistry Panel at the ASDA Annual Business Symposium; Audience: 3 rd & 4 th year Southern California ASDA members.
Nov 2017	Deviations and Interventions During Mixed Dentition; Audience: UCLA School of Dentistry, Pre-Doctoral Orthodontic Study Club
Feb 2018	Hello from the other side; Audience: UCLA Pre-Dental Society Outreach Program
May 2018	Prepare yourself for PASS: The Post-graduate application process/portal; Audience: California Dental Association (CDA)

Societal Memberships

- **AAO** - American Association of Orthodontists
- **PCSO** - Pacific Coast Society of Orthodontists
- **ADA** - American Dental Association
- **CDA** - California Dental Association
- **IADR** - International Association of Dental Research
- **AADR** - American Association of Dental Research
- **AAMS** - Armenian American Medical Society

Social Media Influence



YouTube

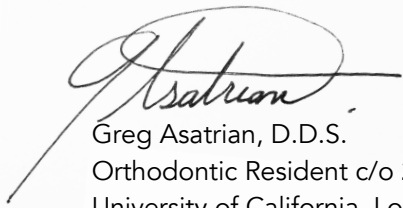
@DrGregAsatrian

Channel: Braces Explained

27,219 Subscribers

Society Membership

2012 – 2016	American Student Dental Association
2012 – 2016	American Dental Education Association
2012 – 2016	Alpha Omega
2013 – 2016	American Dental Political Action
2012 – <i>Present</i>	Committee
2012 – <i>Present</i>	American Association of Dental
2012 – <i>Present</i>	Research
2012 – <i>Present</i>	International Association of Dental
2016 – <i>Present</i>	Research
2016 – <i>Present</i>	American Dental Association
	California Dental Association
	Armenian American Medical Society
	American Association of Orthodontics



Greg Asatrian, D.D.S.
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University of California, Los Angeles