

CURRICULUM VITAE

February 11, 2026

I. PERSONAL INFORMATION

- Name: **HyeRan Choo, D.D.S., D.M.D., M.S.**
- Title: **Clinical Associate Professor**, Department of Surgery, Division of Plastic and Reconstructive Surgery
Inaugural Director, Stanford Orthodontic Airway Plate Treatment Program for Pierre Robin sequence (SOAP for PRS), Lucile Packard Children's Hospital Stanford
Section Chief, Craniofacial Airway Orthodontics
Fellowship Director, Stanford Craniofacial Airway Orthodontics Fellowship
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<https://profiles.stanford.edu/hyeran-choo>

II. EDUCATIONAL BACKGROUND

- Colleges and Universities Attended:
03/1996 - 02/2002 D.D.S. Undergraduate School of Natural Sciences & Graduate School of Dental Surgery, **Seoul National University (SNU)**, Seoul, South Korea
04/2002 - 05/2004 D.M.D. Graduate School of Dental Medicine, **University of Pennsylvania (UPenn)**, Philadelphia, PA
- Residency and Fellowship Training:
07/2004 - 05/2007 Resident / M.S. Post-Graduate Residency of Orthodontics, **University of Alabama at Birmingham (UAB)**, Birmingham, AL
07/2007 - 06/2008 Clinical Fellow Post-Graduate Craniofacial Fellowship Clinical Center, **National Institutes of Health (NIH) / National Institute of Dental and Craniofacial Research (NIDCR)**, Bethesda, MD
09/2020 - 06/2021 Faculty Fellow Biodesign Faculty Fellowship Stanford Byers Center for Biodesign, **Stanford University**,

Palo Alto, CA

- Advanced Courses Attended:

07/2007 - 06/2008	Genetics in Medicine I & II	NIH Graduate School, Bethesda, MD
08/2020 - 01/2021	Mastery Course I, II, & III	American Association of Dental Sleep Medicine, Chicago, IL
03/2021 - 06/2021	Dement's Sleep and Dreams	Stanford University School of Medicine, Department of Psychology and Behavioral Sciences, Palo Alto, CA

- Board Certification:

2008 - 2018	Initial Certification	American Board of Orthodontics, St. Louis, MO
2018 - 2028	Recertification	American Board of Orthodontics, St. Louis, MO
2021 - Current	Certification	American Board of Dental Sleep Medicine, Lisle, IL

- Licensures:

2012 - Current	Dental License	State of California
2010 - Current	Dental License	State of Hawaii
2006 - 2008	Dental License	State of Alabama
2004 - 2014	Dental License	State of Pennsylvania

- Scholarships and Honors:

1998 - 2002	Dental Alumni Scholarships	SNU Graduate School of Dentistry Seoul, South Korea
2004	Omicron-Kappa-Upsilon	National Dental Honor Society, Philadelphia, PA
2004	International Dentist Award	UPenn, Philadelphia, PA

III. PROFESSIONAL EMPLOYMENT:

- Academic Appointments:

07/01/2008 - 06/30/2012	Clinical Associate	UPenn School of Dental Medicine, Philadelphia, PA
07/01/2010 - 06/30/2012	Clinical Assistant Professor	UPenn School of Medicine, Philadelphia, PA
09/16/2016 - 08/31/2019	Clinical Instructor	Stanford University School of Medicine, Palo Alto, CA
09/01/2019 - 08/31/2023	Clinical Assistant Professor	Stanford University School of Medicine

Palo Alto, CA

09/01/2023 – 08/31/2028 Clinical Associate Professor Stanford University School of Medicine
Palo Alto, CA

IV. TEACHING & CLINICAL CARE

- Other Teaching Experience:

2010 - 2012 Adjunct faculty,
AO North America Craniomaxillofacial, Paoli, PA
(<https://www.aofoundation.org/aona/our-community/cmf>)

2016 - Current Guest orthodontic expert,
NIDCR Craniofacial Anomalies and Bone Regeneration Section, Bethesda, MD

- Students / Trainees / Mentorship

Dana Jones, MD Craniofacial surgery fellow 2016-2017, Stanford University

Roshan Morbia, MD Craniofacial surgery fellow 2017-2018, Stanford University

Eric Jablonka, MD Craniofacial surgery fellow 2018-2019, Stanford University

Judy Pan, MD Craniofacial surgery fellow 2019-2020, Stanford University

UiLyong Lee, DMD, PhD International visiting scholar, 2019-2020,
Associate Professor, ChungAng University Medical Center,
Dept. of Oral & Maxillofacial Surgery, Seoul, South Korea

Robert Feczko, MD Craniofacial surgery fellow 2020-2021, Stanford University

Sydney Stoker, DMD, MSD Craniofacial orthodontic fellow 2021-2022, Stanford University

Duncan Mackay, MD, MBA Craniofacial surgery fellow 2021-2022, Stanford University

Jorge Lujan, MD Craniofacial surgery fellow 2022-2023, Stanford University

Jenny Yang, MD Craniofacial surgery fellow 2023-2024, Stanford University

HyoWon Ahn, DMD, PhD International visiting scholar, 2021-2022,
Associate Professor, KyungHee University School of Dentistry,
Dept. of Orthodontics, Seoul, South Korea

Jorge Lujan, MD Craniofacial surgery fellow 2022-2023, Stanford University

JinWoo Kim, DDS, PhD International visiting scholar, 2023,
Associate Professor, Ewha Womans University Medical Center,
Dept. of Oral & Maxillofacial Surgery, Seoul, South Korea

Jenny Yang, MD Craniofacial surgery fellow 2023-2024, Stanford University

YoonJeong Choi, DDS, PhD International visiting scholar, 2023-2024,
Associate Professor, Yonsei University School of Dentistry,
Dept. of Orthodontics, Seoul, South Korea

Kevin Yang, MD Craniofacial surgery fellow 2024-2025, Stanford University

Anthony DeLeonibus, MD Craniofacial surgery fellow 2025-2026, Stanford University

- Hospital Appointments:

08/01/2008 - 06/30/2012 Craniofacial Orthodontist Children’s Hospital Of Philadelphia (CHOP), Philadelphia, PA

05/01/2013 - 08/31/2019 Craniofacial Orthodontist Kaiser Permanente Hospitals, Oakland & Santa Clara, CA

09/16/2016 - 09/01/2019 Craniofacial Orthodontist LPCH Stanford, Palo Alto, CA

09/01/2019 - Current Craniofacial Airway Orthodontist LPCH Stanford, Palo Alto, CA

- Hospital and Health Care Organization Service Responsibilities:

2019 - 2023 Launched the Nation’s first Orthodontic Airway Plate Treatment Program for Robin sequence in the Neonatal Intensive Care Unit (NICU) LPCH Stanford, Palo Alto, CA

- Major Administrative Responsibilities or Committee Assignments:

2021 - Current Director, Neonatal and Pediatric Craniofacial Airway Orthodontics Fellowship Stanford University School of Medicine, Palo Alto, CA

2024 - Current Inaugural Director, Stanford Orthodontic Airway Plate Treatment Program for Pierre Robin Sequence (SOAP for PRS) LPCH Stanford, Palo Alto, CA

V. PUBLIC & PROFESSIONAL SERVICE

- Community Service Related to Professional Work:

2013 - 2016 Volunteering orthodontist Annual Give Kids A Smile Alameda County Community Center, Oakland, CA

2024 - Current Volunteering consultant for a non-profit organization “Healing with OAP for Pierre Robin Sequence (HOAP for PRS)” Columbus, OH

- Professional Societies:

2007 - Current Member American Cleft Palate - Craniofacial Association (ACPA)

2019 - Current Member American Association of Dental Sleep Medicine (AADSM)

2021 - Current Member California Sleep Society (CSS)

2023 - Current Member International Pediatric Sleep Association (IPSA)

2023 - Current Member International Cleft Lip and Palate Foundation (ICPF)

2023 - Current Member International Confederation for Cleft lip/Palate and related Craniofacial Anomalies (ICCPA)

2024 - Current Associate Member International Society of Craniofacial Surgery (ISCF)

- Committee Positions in Professional Societies:

2026	Scientific committee	18 th International Congress of ICPF, Prague, Czech Republic
2026 - 2029	Educational committee	American Cleft Palate Craniofacial Association (ACPA)

- Conference Session Chair:

2022	3 rd International Robin Sequence Consensus Meeting, Tübingen, Germany
2025	15 th International Congress on Cleft Lip/Palate and Related Craniofacial Anomalies, Kyoto, Japan

- Editorial Service:

- Ed Hoc Reviewer:

2020	Orthodontics and Craniofacial Research
2021 – Present	Korean Journal of Orthodontics

- Editorial Board:

2011 - 2014	Editorial Board	Seminars in Orthodontics (Elsevier)
2021 - 2022	Guest Editor	Sensors (MDPI)

- News Articles

- <https://healthier.stanfordchildrens.org/en/newborn-avoids-surgery-with-stanford-medicines-unique-treatment-for-a-small-jaw/>. May 26, 2021. Stanford Children’s Health highlights a neonate borne with Robin Sequence treated by nonsurgical orthodontic airway plate. HyeRan Choo is featured.
- <https://med.stanford.edu/news/all-news/2021/05/Newborn-avoids-surgery-with-retainer-to-treat-small-jaw.html>. June 1, 2021. Stanford University School of Medicine highlights HyeRan Choo’s novel treatment method of Orthodontic Airway Plate (OAP).
- “Newborn avoids surgery with Stanford Medicine’s unique treatment for a small jaw”. Neonatal Intensive Care. The journal of Perinatology and Neonatology (2021) Summer 34(3):60-61. Article on a neonate treated by the OAP. HyeRan Choo is featured.
- <https://pierreroberneurope.com/dr-hyeran-choo-non-surgical-orthodontic-airway-plate-treatment-stanford>. August 9, 2022. HyeRan Choo was interviewed by Pierre Robin Europe on launching the OAP program for neonatal Robin sequence at Stanford as the first institution in the United States.
- “Cigna Case Manager Program (<https://f.io/bbi78wng>, password: customer)”. March 1, 2023. The OAP program was featured in a promotional video produced by Cigna Healthcare® highlighting the inter-hospital transportation and care coordination from the Children’s Healthcare of Atlanta / Emory University to the Lucile Packard Children’s Hospital Stanford / Stanford University.
- <https://healthier.stanfordchildrens.org/en/simple-orthodontic-device-helps-baby-breathe-eat-without-support/> September 11, 2023. Stanford Medicine Children’s Health highlights HyeRan Choo’s Stanford OAP treatment for a neonate transferred from Atlanta, Georgia.
- <https://surgery.stanford.edu/research/scrubcast.html>. April, 2024. Stanford Medicine Department of Surgery’s Podcast. HyeRan Choo and her nonsurgical treatment for Pierre Robin Sequence were featured.

- [“https://hoapforprs.org/”](https://hoapforprs.org/). May, 2024. Non-profit organization founded by parents whose children were treated by the Stanford OAP. HyeRan Choo and the Stanford OAP are featured.
- https://www.linkedin.com/posts/soniamehtasidhpura_marketinginspiration-innovationmindset-leadershiplessons-activity-7328164243973775360-4iP3?utm_source=share&utm_medium=member_desktop&rcm=ACoAAAFQqsgByfufXCCTSnz0V25Aq9B0rKAK9qU. May 2025. A Linked-In post based on the patient story, featuring HyeRan Choo and the Stanford OAP.
- <https://www.faces-cranio.org/post/genevieve-s-story-a-mother-s-determination-no-matter-the-distance>. January 2026. A patient story at the National Craniofacial Association (FACES), highlighting HyeRan Choo and the Stanford OAP.

VI. POST-DEGREE HONORS & AWARDS

- Aug, 2006 International Peace Scholarship UAB, Birmingham, AL
- Sep, 2023 Recognition of Colleague (ROC) Award Stanford Medicine Children’s Health, Palo Alto, CA
- Oct, 2023 ROC Award Stanford Medicine Children’s Health, Palo Alto, CA
- Jun, 2024 Best Poster Award The 16th Stanford Plastic Surgery Research Symposium, Stanford University, Palo Alto, CA
- Jul, 2024 David Precious Memorial Science Award The 16th World Congress of ICPF, Tokyo, Japan

VII. PATENTS

- “Intraoral Sleep Apnea Devices and methods for making and using such devices”. International and domestic application number.: PCT/US2021/062982 filed on 12/11/2021, Stanford Docket No.:S20-382.
Inventor: HyeRan Choo
- “Removable orthodontic devices paired with or without extraoral sensors for obstructive sleep apnea treatment and prevention, tongue movement studies for myofunctional therapy, and/or for correction or prevention of mouth breathing habit while awake or asleep and systems and methods for using such devices”. International application number.: WO/2022/126002 filed on 6/16/2022, Stanford Docket No.: S21-149.
Inventor: HyeRan Choo

VIII. OTHER STUDY AND RESEARCH OPPORTUNITIES

- Current Funding:
 - National Institutes of Health Small Business Innovation Research (SBIR) R43. Phase I.

Title: “CraniaMap: Joint Solution for Auto-Segmentation and Landmarking from Cone-Beam Computed Tomography (CBCT) Scans”

PI: Wade Han. Florida Ear Nose Throat Facial Plastic Surgery Center, Orlando, Florida.

Consultant: HyeRan Choo (Stanford), Ulaş Bağcı (Northwestern University), Syed Muhammad Anwar (Children’s National Hospital)

Funding period: 5/1/2025-2/1/2026

- Department of Surgery Innovation Seed Grant Program. Stanford University School of Medicine.
Title: “Development of Computed Tomography-based Computer-Aided Design Workflow to improve Access to Stanford Orthodontic Airway Plate Treatment for Neonates with Pierre Robin Sequence”.
PI: HyeRan Choo
Funding period: 4/1/2025 – 9/30/2026

- Submitted Grant Applications:

- R01-PA-25-301. NIH Research Project Grant. NIH/NIDCR. Submitted on 6/5/2025.
Title: “Computation-guided Upper airway REhabilitation using Stanford Orthodontic Airway Plate Treatment for Pierre Robin Sequence (**CURES** for **PRS**)”.
PI: HyeRan Choo, Co-PI: Syed Muhammad Anwar (Children’s National Hospital)

- Prior Funding:

- Transdisciplinary Initiatives Program. Stanford Maternal and Child Health Research Institute (MCHRI).
Title: “Transitioning from a Manually-crafted to Digitally-designed Oral Devices: A Digital Workflow to Treat Neonates with Cleft Lip and/or Palate or Robin Sequence to Ameliorate Surgical Procedures”.
PI: HyeRan Choo, Co-PI: Joseph M. DeSimone
Funding period: 1/30/2023 – 1/31/2026
- Post-Biodesign Faculty Fellowship (BFF) Summer Extension Innovation Research Grant. Stanford University.
Title: “Prototyping nonsurgical hypoglossal nerve stimulation and a novel mechanical oral device for obstructive sleep apnea”
PI: HyeRan Choo
Funding period: 6/1/2021 - 12/31/2021
- RC1 DE020270. NIH/NIDCR.
Title: “Planning Grant Genome-Wide Association Study of Craniofacial Microsomia”
The goal of this grant is to collect preliminary data for a future longitudinal cohort study of children with craniofacial microsomia and controls to assess neurodevelopmental and social communication outcomes.
PI: Carrie Heike (Seattle Children’s Hospital),
Site PI: HyeRan Choo (The Children’s Hospital Of Philadelphia)
Funding period: 09/22/2009 - 08/31/2011

IX. SCHOLARLY PUBLICATIONS

- Peer-reviewed Original Research Articles: (Published)
1. Huang, J.C., **Choo, H.**, Mah, J. “Cone-beam computed tomography (CBCT) in clinical practice” Pacific Coast Society of Orthodontists Bulletin (2008); Spring: 18-22. Participated as the 2nd author in interpretation and manuscript review.

2. Kim, SH., Chung, KR., Kook, YA., **Choo, H.** "Anterior torque control using partial-osseointegrated mini-implants- Biocreative therapy type II technique" World J Orthod. (2008) Summer; 9(2):105-13. Participated in study design, data analysis, and interpretation and manuscript review.
3. Kim, SH., **Choo, H.**, Hwang, YS., Chung, KR. "A double arch wire mechanics using temporary anchorage devices to relocate ectopically impacted maxillary canines" World J Orthod. (2008) Fall; 9(3):255-266. Participated as the 2nd author in study design, data analysis, and interpretation and manuscript review.
4. Kim, GT., Kim, SH., Choi, YS., Park, YJ., Chung, KR., Suk, KE., **Choo, H.**, Huang, JC. "Cone-Beam Computed Tomography (CBCT) evaluation of orthodontic mini-plate anchoring screws (MPAS) placed in the posterior maxilla" Am J Orthod Dentofacial Orthop. (2009); 136:628.e1-628.e10. Participated in data analysis, interpretation, and manuscript review.
5. Mah, J., Huang, J.C., **Choo, H.** "Practical Applications of Cone-Beam Computed Tomography in Orthodontics" J Am Dent Assoc. (2010); 141; 7S-13S. Participated in data interpretation and manuscript review.
6. Chung, KR., Kim, SH., **Choo, H.**, Kook, YA., Cope, JB. "Distalization of the mandibular dentition with mini-implants to correct a Class III malocclusion with a midline deviation" Am J Orthod Dentofacial Orthop. (2010); 137:135-46. Participated in study design, data analysis, and interpretation and manuscript review.
7. Chung, KR., **Choo, H.**, Kim, SH., Ngan, P. "Timely relocation of mini-implants for uninterrupted full arch distalization: A case report" Am J Orthod Dentofacial Orthop. (2010); 138:839-49. Participated as the 2nd author in study design, data analysis, and interpretation and manuscript review.
8. Lee, JH., **Choo, H. (Equally contributing 1st author)**, Kim, SH., Chung, KR., Giannuzzi, L., Ngan, P. "Replacing a failed mini-implant with a mini-plate to prevent interruptions during orthodontic treatment" Am J Orthod Dentofacial Orthop. (2011); 139:849-57. *Participated as the equally contributing 1st author.
9. **Choo, H.**, Heo, HA., Yoon, HJ., Chung, KR., Kim, SH. "Treatment outcome analysis of Speedy Surgical Orthodontics for adults with maxillary protrusion" Am J Orthod Dentofacial Orthop. (2011); 140:e251-62. Participated as the 1st author.
10. Chung KR, **Choo H**, Lee JH, Kim SH. "Atypical orthodontic extraction pattern managed by differential en-masse retraction against a temporary skeletal anchorage device in the treatment of bimaxillary protrusion" Am J Orthod Dentofacial Orthop. (2011); 140:423-32. Participated as the 2nd author in study design, data analysis, and interpretation and manuscript review.
11. Jeong, DM., Choi, B., **Choo, H.**, Kim, JH., Chung, KR., Kim, SH. "A novel application using the two-piece orthodontic mini-implant for temporary crown restoration upon completion of orthodontic treatment" Am J Orthod Dentofacial Orthop. (2011); 140:569-79. Participated in study design, data analysis, and interpretation and manuscript review.
12. Cho, IS., **Choo, H.**, Kim, SK., Shin, YS., Kim, DS., Kim, SH., Chung, KR., Huang, JC. "The effects of different pilot-drilling methods on the mechanical stability of a mini-implant system at placement and removal: a preliminary study" Kor J Orthod. (2011); 41:354-360. Participated as the 2nd author in study design, data analysis, and interpretation and manuscript review.
13. Kim, HS., Lee, YJ., Park, YG., Chung, KR., Kang, YG., **Choo, H.**, Kim, SH. "Histological assessment of the biological effects after speedy surgical orthodontics in a beagle animal model: a preliminary study" Kor J Orthod. (2011); 41:361-370. Participated in data interpretation and manuscript review.
14. Mah, J., Yi, L., Huang, J.C., **Choo, H.**: Advanced Applications of Cone-beam CT in Orthodontics. Semin Orthod. (2011); 17:57-71. Participated in data interpretation and manuscript review.

15. Chung, KR., Kim, SH., **Choo, H.** "Class III correction using Biocreative Therapy (C-Therapy)" Semin Orthod. (2011); 17:108-123. Participated in study design, data analysis, and interpretation and manuscript review.
16. **Choo, H.***, Maguire, M., Low, D. "Modified technique of presurgical infant maxillary orthopedics for complete bilateral cleft lip and palate" Plast Reconstr Surg. (2012); 129:244-8. *Conducted the research as the corresponding and 1st author.
17. **Choo, H.***, Maguire, M., Low, D. "Modified technique of presurgical infant maxillary orthopedics for complete unilateral cleft lip and palate" Plast Reconstr Surg. (2012); 129:249-52. *Conducted the research as the corresponding and 1st author.
18. Chung, KR., Kim, Y., **Choo, H.**, Kim, SH., Nelson, G. "The biocreative strategy. Part 4: Molar distalization in nonextraction treatment." J Clin Orthod. (2018); 52(9):462-475. Participated in drafting of the manuscript and critical revision of the manuscript for important intellectual content.
19. Noh, MK., Seo, KW., **Choo, H.**, Chung, KR., Kim, SH. "Use of C-tube microplates for controlling the vertical dimension during maxillary incisor intrusion" J Clin Orthod. (2019); 53(7):414-425. Participated in drafting of the manuscript and critical revision of the manuscript for important intellectual content.
20. Jeong, DM., Oh, SH., **Choo, H.**, Choi, YS., Kim, SH., Lee, JS., Hwang, EH. "Root proximity of the anchoring miniscrews of orthodontic miniplates in the mandibular incisal area: Cone-beam computed tomographic analysis." Korean J Orthod. (2021) Jul 25;51(4):231-240. Participated in study design, data analysis, and interpretation and manuscript review.
21. Park, JH., **Choo, H. (Equally contributing 1st author)**, Choi, JY., Chung, KR., Kim, SH. "Evaluation of strategic uprighting of the mandibular molars using an orthodontic miniplate and a nickel-titanium reverse curve arch wire: Preliminary cephalometric study". Korean J Orthod. (2021); May;51(3):179-188. Participated as the Co-1st author.
22. Choi, JY., **Choo, H.**, Chung, KR., Kim, SH. "Finite element analyses of C-expanders with different vertical vectors of anchor screws" Am J Orthod Dentofacial Orthop. (2021); Jun;159(6):799-807. Participated as the 2nd author in drafting of the manuscript and critical revision of the manuscript for important intellectual content.
23. **Choo, H.***, Khosla, R., Meister, K., Wan, D., Lin, H., Feczko, R., Bruckman, K., Hopkins, E., Truong, M., Lorenz, P. "Non-surgical Orthodontic Airway Plate treatment for newborns with Robin Sequence". Cleft Palate Craniofac J. (2022); Mar;59(3):403-410. *Conducted the research as the corresponding and 1st author.
24. Abbas, D., Lavin, C., Fahy, E., **Choo, H.**, Truong, M., Bruckman, K., Khosla, R., Lorenz, H., Momeni, A., Wan, D. "A Systematic Review of Mandibular Distraction Osteogenesis vs. Orthodontic Airway Plate for Airway Obstruction Treatment in Pierre Robin Sequence". Cleft Palate Craniofac J. (2022); Mar;59(3):365-376. Participated in study design, interpretation, and manuscript review.
25. **Choo, H.***, Kim, SH., Ahn, HW., Poets, CF., Chung, KR. "Split orthodontic airway plate: An innovation to the utilization method of conventional orthodontic airway plate for neonates with Robin sequence". Korean J Orthod. (2022); Jul 25;52(4):308-312. *Conducted the research as the corresponding and 1st author.
26. Lim, L., **Choo, H. (Equally contributing 1st author)**, Eto, LF., Chung, KR., Kim, SH. "Bio-Exercise (BioEx)- A Bio Creative Orofacial Myofunctional Therapy: preliminary cephalometric study and clinical application". Dental Press J Orthod. (2022);27(2):e2220367. *Participated as the co-1st author.
27. Goodnough, LH., Ambrosi, TH., Steininger, HM., Butler, MGK., Hoover, MY., **Choo, H.**, Van Rysselberghe, NL., Bellino, MJ., Bishop, JA., Gardner, MJ., Chan, CKF. "Cross-species comparisons reveal resistance of human skeletal stem cells to inhibition by non-steroidal anti-inflammatory drugs". Front Endocrinol (Lausanne). (2022);13:924927. Participated in data analysis, interpretation, and manuscript review.

28. Li, J., Moeinzadeh, S., Kim, C., Pan, CC., Weale, G., Kim, S., Abrams, G., James, AW., **Choo, H.**, Chan, C., Yang, YP. "Development and systematic characterization of GelMA/alginate/PEGDMA/xanthan gum hydrogel bioink system for extrusion bioprinting". *Biomaterials*. (2022) Dec 15;293:121969. Participated in critical revision of the manuscript for important intellectual content.
29. **Choo, H.***, Galera, R., Balakrishnan, K., Lin, H., Lorenz, H., Khosla, R., Profit, J., Poets, C., Lee, J. "Disruptive therapy using a nonsurgical orthodontic airway plate for the management of Robin sequence: One-year follow-up". *Cleft Palate Craniofac J*. (2023) 06;60(6):758-767. *Conducted the research as the corresponding and 1st author.
30. Choi, J., **Choo, H.**, Kim, M., Chung, K., Kim, S. "Miniscrews position for a tissue bone borne palatal C-expander affects the displacement pattern of nasomaxillary complex: a finite element study". *Sci Rep*. (2023); 13 (1): 17135. Participated as the 2nd author in conception and design of the study, drafting of the manuscript, data analyses, and critical revision of the manuscript for important intellectual content.
31. Kim, G., Kim, S., Hwang H., Kim H., Kim, D., Park, J., **Choo, H.**, Kim, J. "Effects of daily versus weekly teriparatide for medication-related osteonecrosis of the jaw: A case-control study". *Oral Dis*. (2023) Nov 05. Participated in data analysis, interpretation, and manuscript review.
32. **Choo, H.***, Ahn, H. "A Biocreative Alveolar Molding Plate Treatment for Neonatal Unilateral Cleft Lip and Palate with Excessively Wide Alveolar Cleft and Maxillary Arch Width." *Korean J Orthod*. (2024) Jan 25;54(1):69-73. *Conducted the research as the corresponding and 1st author.
33. **Choo, H.***, Davis, A., Bain, L., Ahn, H. "Weight Gain of Infants with Robin Sequence Treated Nonsurgically Using the Stanford Orthodontic Airway Plate (SOAP): 1-Year Follow-Up." *Cleft Palate Craniofac J*. (2024) Feb 19:10556656241233239. doi: 10.1177/10556656241233239. Epub ahead of print. *Conducted the research as the corresponding and 1st author.
34. Kim JW, Wan A, Kim JY, **Choo H.*** "Presurgical Reduction of the Cleft Palate: Serendipitous Benefit of the Stanford Orthodontic Airway Plate Treatment (SOAP) for Infants with Robin Sequence." *Cleft Palate Craniofac J*. (2024) Jun 17:10556656241261846. doi: 10.1177/10556656241261846. Epub ahead of print *Conducted the research as the corresponding author.
35. **Choo, H.***, Sidell, D., Kim, J., Day, H., Ahn, H., Sullivan, S. "Nonsurgical Improvement of Severe Upper Airway Obstruction in Infants with Robin Sequence and Cleft Palate using Stanford Orthodontic Airway Plate Treatment". *J Clin Sleep Med*. (2024) Nov 1;20(11):1807-1817. *Conducted the research as the corresponding and 1st author.
36. Ahn, H., Choi, Y., Baek, W., Kim, H., Chang, P., **Choo, H.*** "Near-normalized Maxillomandibular Relationship and Upper Airway in Infants with Robin Sequence treated with Stanford Orthodontic Airway Plate: Computed Tomography Study". *Cleft Palate Craniofac J*. (2024) Dec 18:10556656241306531. doi: 10.1177/10556656241306531. Epub ahead of print. *Conducted the research as the corresponding author.
37. **Choo, H.***, Moon, S. "Growth of the Maxillary Apical Base in Post-Adolescents with Craniofacial Dysmorphism using ATOZ Orthodontic Distraction Osteogenesis. *Seminars in Orthodontics*. (2025); 31 (2): 240-251". *Conducted the research as the corresponding and 1st author.
38. **Choo H.*** Functional Matrix Theory and Stanford Orthodontic Airway Plate Treatment Program for Infants With Pierre Robin Sequence (SOAP for PRS). *Cleft Palate Craniofac J*. 2025 Feb 3:10556656251318114. doi: 10.1177/10556656251318114. Epub ahead of print. PMID: 39901462. *Conducted the research as the corresponding and 1st author.
39. **Choo, H.*** Stanford orthodontic airway plate treatment program for neonates with Pierre Robin sequence in the United States: non-surgical alternative to neonatal mandibular distraction osteogenesis. *J Clin Sleep Med*.

2024 Dec 20. doi: 10.5664/jcsm.11516. Epub ahead of print. PMID: 39702963. *Conducted the research as the corresponding and 1st author.

40. Agaronyan, A., Olivares, M., Anwar, S., **Choo, H.*** “Developing a machine-learning algorithm to predict the outcome of the biocreative alveolar molding plate treatment in infants with unilateral cleft lip and palate: a pilot study.” Society of Photo-Optical Instrumentation Engineers (SPIE) Medical Imaging: Image-Guided Procedures, Robotic Interventions, and Modeling. (2025); 13408: 654-658. doi.org/10.1117/12.3047496. *Conducted the research as the corresponding author.
 41. Agaronyan, A., **Choo, H.**, Linguraru, M., Anwar, S. "Geometric Deep Learning for Automated Landmarking of Maxillary Arches on 3D Oral Scans from Newborns with Cleft Lip and Palate." The Institute of Electrical and Electronics Engineers (IEEE) International Symposium on Biomedical Imaging (ISBI) (2025); 1: 1-5. doi.org/10.1109/ISBI60581.2025.10980988. Participated as the 2nd author in conception and design of the study, drafting of the manuscript, data analyses, and critical revision of the manuscript for important intellectual content.
 42. Agaronyan, A., Anwar, S., **Choo, H.*** AI-enhanced predictive modeling for treatment duration and personalized treatment planning of cleft lip and palate therapy. Int J Comput Assist Radiol Surg. 2025 Sep 9. doi.org/10.1007/s11548-025-03515-w. Epub ahead of print. PMID: 40924362. *Conducted the research as the corresponding author.
 43. Wu, R., Grande, P., Zhang, J., Park, JY., Yamada, N., Lorenz, HP., Menard R., Forrest, C., **Choo, H.*** “Weight Gain in Infants with Pierre Robin Sequence: A Comparison of Non-surgical Orthodontic Airway Plate vs. Surgical Mandibular Distraction Osteogenesis”. Cleft Palate Craniofac J. 2026 Jan 21:10556656251414397. doi: 10.1177/10556656251414397. Epub ahead of print. PMID: 41564262. *Conducted the research as the corresponding author.
- Non Peer-reviewed Journal Articles, Reviews, Editorials, etc.:
 1. **Choo, H.** “Where have all the jobs gone?” Am J Orthod Dentofacial Orthop. (2007); 131(6):701.
 2. **Choo, H.**, Kim, SH., Huang, JC. “TAD, a misnomer?” Am J Orthod Dentofacial Orthop. (2009); 136(2):145-6.
 3. Kim SH, Kim KB, **Choo H.** “New Frontier in Advanced Dentistry: CBCT, Intraoral Scanner, Sensors, and Artificial Intelligence in Dentistry.” Sensors (Basel). (2022); Apr 12;22(8)
 4. **Choo, H.**, “Orthodontic Airway Plate at Stanford: An Innovative nonsurgical treatment for neonatal Robin sequence”. Lucile Packard Children’s Hospital Outreach Program. Surgical Services Newsletter. July (2022)
 - Book Chapters:
 1. Chung, KR., **Choo, H.**, Kim, SH. Chapter 45: “Non-extraction correction of Class II malocclusion using Biocreative Therapy.” In Skeletal Anchorage in Orthodontic Treatment of Class II Malocclusion: Contemporary Applications of Orthodontic Implants, Miniscrew Implants, and Mini-Plates. 1st ed. Ed., Moschos A. Papadopoulos. Mosby Ltd, (2014); pp.239-243.
 - Digital Publications:
 1. “<https://www.stanfordchildrens.org/en/service/plastic-surgery/orthodontic-airway-plate?>”. Stanford Children’s Health website context and illustration drafted and edited by HyeRan Choo. The 1st edition on 6/1/2021. The 2nd edition on 8/15/2025.

2. "Pierre Robin Sequence: Informational Booklet for Caregivers". Choo participated as co-author. The primary author is Katherine Emerick (MD Candidate at Texas Tech Paul L. Foster School of Medicine) whose son was treated with Stanford OAP by HyeRan Choo in 2023. The 1st edition was published on 1/1/2026.
- Peer-reviewed Abstract Publications:
 1. **Choo, H.**, Lorenz, P., Khosla, R., Menard, R. "Infant Oral & Facial Orthopedics: Non-surgical management of upper airway obstruction in a newborn with Pierre Robin Sequence". 13th Annual Plastic Surgery Research Symposium and Thuss Lectureship. Virtual venue. Publication only. 4/21/2020.
 2. **Choo, H.**, Khosla, R., Lorenz, P. "The spatial retention mechanism is a key to the optimal realignment of nasomaxillary complex of infants born with severe orofacial cleft prior to the surgery". 13th Annual Plastic Surgery Research Symposium and Thuss Lectureship. Virtual venue. Publication only. 4/21/2020.
 3. Steininger, H., Chan, C., **Choo, H.** "Isolation and characterization of Human Dental Pulp Stem Cell Populations". 14th Annual Plastic Surgery Research Symposium and Thuss Lectureship. Virtual venue. Publication only. 4/6/2021.
 4. Galera, R., **Choo, H.** "1-Year Follow Up of Two Neonates with Robin Sequence (RS) Treated with Nonsurgical Orthodontic Airway Plate (OAP)". 79th American Cleft Palate Craniofacial Association Annual Meeting. Virtual venue. Oral Presentation. 4/1/2022.
 5. **Choo, H.** "Stanford protocol for the management of neonatal Robin sequence using the Split Orthodontic Airway Plate". 26th Congress of Korean Cleft Lip and Palate Association Annual Meeting. Seoul, Korea. Oral Presentation. 6/22/2022.
 6. **Choo, H.** "Nonsurgical Management of Neonatal Robin sequence using the Split Orthodontic Airway Plate (S-OAP)". 80th American Cleft Palate Craniofacial Association Annual Meeting. Raleigh, NC. Instructional Course. Oral Presentation. 5/4/2023.
 7. **Choo, H.** "Split Orthodontic Airway Plate treatment for accelerated natural mandibular growth of neonates with Robin sequence". 15th World Congress of International Cleft Lip and Palate Foundation. Seoul, Korea. Oral Presentation. 6/17/2023.
 8. **Choo, H.** "Nonsurgical Improvement of Severe Upper Airway Obstruction in Infants with Robin Sequence using Stanford Orthodontic Airway Plate (SOAP) Treatment". Korean Child Neurology Society Annual Meeting. Seoul, Korea. Oral Presentation. 12/16/2023.
 9. Almpanti, K., **Choo, H.**, Kim, J., Lee, J. "Craniofacial Assessment of Infants with Robin Sequence Treated with an Institution's Orthodontic Airway Plate - Treatment Protocol versus Mandibular Distraction Osteogenesis". 81st American Cleft Palate Craniofacial Association Annual Meeting, Denver, CO. General Session. Oral Presentation. 4/10/2024.
 10. **Choo, H.**, Ahn, H., Yang, J. "Weight Gain of Infants with Robin Sequence Treated Nonsurgically Using the Stanford Orthodontic Airway Plate (SOAP): 1-Year Follow-Up". 81st American Cleft Palate Craniofacial Association Annual Meeting. Denver, CO. General Session. Oral Presentation. 4/10/2024.
 11. **Choo, H.**, Sidell, D., Kim, J., Ahn, H., Day, H., Tevlin, R., Lorenz, P., Sullivan, S. "Respiratory Improvement Following the Non-surgical Treatment using the Stanford Orthodontic Airway Plate for Infants with Robin Sequence". 81st American Cleft Palate Craniofacial Association Annual Meeting. Denver, CO. ENT/Audiology/OMFS. Oral Presentation. 4/12/2024.
 12. Choi, Y., Ahn, H., **Choo, H.** "Cephalometric analysis of craniofacial and airway growth in infants with Robin sequence treated with Stanford Orthodontic Airway Plate (SOAP)". 17th Stanford Plastic Surgery Research Symposium and Thuss Lectureship. Palo Alto, CA. Poster Presentation. 4/16/2024.

13. **Choo, H.**, Choi, Y., Ahn, H. "Cephalometric analysis of craniofacial and airway growth in infants with Robin sequence treated with Stanford Orthodontic Airway Plate (SOAP)". 16th World Congress of International Cleft Lip and Palate Foundation. Tokyo, Japan. Oral Presentation. 7/19/2024.
14. **Choo, H.**, Ahn, H., Choi, Y. Accelerated Growth of the Mandible and Upper Airway in Infants With Robin Sequence Treated With an Institution's Orthodontic Airway Plate: 1-Year Follow-Up With Computed Tomography". 82nd American Cleft Palate Craniofacial Association Annual Meeting. Palm Springs, CA. General Session. Oral Presentation. 5/7/2025.
15. Wu, R., Grande, P., Zhang, J., **Choo, H.** "Comparison of Weight Gain During the First Year of Life in Infants With Robin Sequence Treated With an Institution's Nonsurgical Orthodontic Airway Plate Versus Surgical Mandibular Distraction Osteogenesis". 82nd American Cleft Palate Craniofacial Association Annual Meeting. Palm Springs, CA. Feeding. Oral Presentation. 5/9/2025.
16. Rowan, N. Chiavatti, R., Chiavatti, J., Rowan, A., **Choo, H.** "Healing With Orthodontic Airway Plate (HOAP) for Pierre Robin Sequence (PRS): Parents-Initiated Nonprofit Organization to Support Parents of Infants With PRS". 82nd American Cleft Palate Craniofacial Association Annual Meeting. Palm Springs, CA. Poster Presentation. 5/8/2025.
17. **Choo, H.** "Orthodontic Treatment of Upper Airway Obstruction in Patients with Craniofacial Anomalies: Birth to Early Adulthood". 15th International Congress on Cleft Lip/Palate and Related Craniofacial Anomalies. Kyoto, Japan. Oral Presentation. 10/20/2025.
18. **Choo, H.** "The Stanford Orthodontic Airway Plate treatment program for Pierre Robin sequence: Non-surgical alternative to neonatal mandibular distraction osteogenesis". 10th Asia Pacific Pediatric Otolaryngology Society Conference. Seoul, Korea. Oral Presentation. 11/8/2025.
19. **Choo, H.** "The Stanford Orthodontic Airway Plate Treatment Program: Non-surgical airway treatment for neonates with severe respiratory distress and oral feeding difficulty". 45th Hot Topics in Neonatology 2025. Washington D.C. Oral Presentation. 12/8/2025.
20. Krakauer, K., **Choo, H.**, Olivares, M., Ly, M., Komondor, K., Forrest, C. "Micro-Costing Analysis in Infants With Pierre Robin Sequence: A Comparative Cohort Study of an Institution's Non-surgical Orthodontic Airway Plate versus Surgical Mandibular Distraction Osteogenesis". 83rd American Cleft Palate Craniofacial Association Annual Meeting. Boston, MA. Otolaryngology/Airway/Sleep. Oral Presentation. 3/27/2026.
21. Wagner, C., **Choo, H.**, Umbaugh, H., Shin, S., Zhang, J., Olivares, M., Crerand, C. "Caregiver and Child Psychosocial Outcomes Following Orthodontic Airway Plate Treatment in Infants with Pierre Robin Sequence". 83rd American Cleft Palate Craniofacial Association Annual Meeting. Boston, MA. Psychosocial/Quality of Life. Oral Presentation. 3/27/2026.

X. INVITED LECTURESHIP

- **LOCAL:**

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| Oct 2008 | "Cleft Lip and Palate: Embryologic review and introduction to the team care at CHOP".
- Invited Speaker.
Department of Pediatric Dentistry, UPenn School of Dental Medicine, Philadelphia, PA |
| Nov 2008 | "Skeletal Patterns, Malocclusion, and Articulation".
- Invited Speaker.
Department of Speech Pathology Lecture Series, CHOP, Philadelphia, PA |

- Mar 2009 “Craniofacial anomaly and its treatment modalities at CHOP Craniofacial Center”.
- Invited Speaker.
Department of Pediatric Dentistry, UPenn School of Dental Medicine, Philadelphia, PA
- Mar 2009 “Early maxillary orthopedics and nasal molding for newborn babies with cleft lip and palate”.
- Invited Speaker.
Department of Plastic Surgery, UPenn School of Medicine, Philadelphia, PA
- Feb 2011 “Feeding and infant maxillary orthopedics for newborns with cleft lip and palate”.
- Invited Speaker.
Department of Speech Language Pathology Lecture Series at CHOP, Philadelphia, PA
- July 2011 “Distraction Osteogenesis and Infant Maxillary Orthopedics at CHOP”.
- Invited Speaker.
Department of Orthodontics, UPenn School of Dental Medicine, Philadelphia, PA
- Feb 2012 “Cephalometric Analysis for Craniofacial Surgery”.
- Invited Speaker.
Department of Plastic Surgery, UPenn School of Medicine, Philadelphia, PA
- Aug 2017 “Simplified Nasal Alveolar Molding”.
- Invited Speaker.
Department of Surgery, Division of Plastic and Reconstructive Surgery,
Stanford University School of Medicine, Palo Alto, CA
- Mar 2018 “Craniofacial Orthodontics for pediatric patients”.
- Invited Speaker.
Department of Pediatrics, Noon Lecture Series, LPCH, Palo Alto, CA
- May 2020 “Infant Orthodontics for Robin Sequence”.
- Invited Speaker.
Department of Surgery, Plastic Surgery and Cleft & Craniofacial Clinic at LPCH,
Palo Alto, CA
- Aug 2020 “Collaboration of Pediatric Otolaryngology and Orthodontics for infant airway management”.
- Invited Speaker.
Department of Otolaryngology – Head & Neck Surgery, Division of Pediatric
Otolaryngology Faculty Meeting, Stanford University School of Medicine,
Palo Alto, CA
- Sep 2020 “Non-surgical Airway and Feeding Management for Retrognathia / Pierre Robin
Sequence using Orthodontic Airway Plate”.
- Invited Speaker.
Department of Pediatrics, NICU Clinical Consensus Conference, LPCH, Palo Alto, CA
- Oct 2020 “Infant Orthodontics: Orthodontic Airway Plate (OAP) and Orthodontic Molding Plate: Non-
surgical Airway and Feeding Management”
- Department of Gastroenterology, Nursing Education Series, LPCH,
Palo Alto, CA
- Mar 2021 “Biodesign Faculty Fellows: Designing innovations to improve health and health care”.
- Invited Speaker.

Maternal & Child Health Research Institute (MCHRI) Lecture Series,
Stanford University, Palo Alto, CA

- Dec 2021 “Nonsurgical neonatal mandibular distraction using a removable Orthodontic Airway Plate”.
- Invited Speaker.
Department of Pediatrics, Intermediate Care Nursery Nursing Education Series,
LPCH, Palo Alto, CA
- Feb 2022 “Neonatal and Infant Orthodontics: Split Orthodontic Airway Plate for neonatal obstructive
sleep apnea and Split Alveolar Molding Plate (AMP) for neonatal Cleft lip and Palate”.
- Invited Speaker.
Department of Pediatrics, Specialty Care Nursery Lecture Series,
Sequoia Hospital, Mid-Coastal California Perinatal Outreach Program,
Redwood City, CA
- April 2022 “Sustainable Orthodontic Airway Plate Program at LPCH”.
- Invited Speaker.
Auxiliaries Endowment Grant Pitch Competition,
Lucile Packard Foundation for Children's Health, Menlo Park, CA
- May 2022 “Nonsurgical Orthodontic Airway Plate for neonatal Robin sequence”.
- Invited Speaker.
Department of Pediatrics, Division of Maternal Fetal Medicine Faculty Meeting,
Stanford University School of Medicine, Palo Alto, CA
- Oct 2022 “Management of neonatal obstructive sleep apnea using the nonsurgical Split Orthodontic
Airway Plate”.
- Invited Speaker.
Department of Pediatrics, The Center for Excellence in Pulmonary Biology and Division
of Pediatric Pulmonary, Asthma, and Sleep Medicine Lecture Series,
Stanford University School of Medicine, Palo Alto, CA
- Jun 2023 “Breathe, Sleep, Feed, and Grow: The nonsurgical management protocol for
neonates with Robin Sequence”.
- Invited Speaker.
Neonatal Intensive Care Unit Division Meeting, Santa Clara Valley Medical Center,
San Jose, CA
- Mar 2024 “Stanford Pediatric Plastic Surgery: Reconstructing Faces”
– Featuring Drs. Peter Lorenz, Rohit Khosla, Karl Bruckman, & HyeRan Choo.
- Invited Speaker.
Department of Surgery Grand Rounds, Stanford University School of Medicine,
Palo Alto, CA
- Oct 2024 “Updates on OAP program in the NICU”.
- Invited Speaker.
Department of Pediatrics, Division of Neonatology Faculty Meeting,
Stanford University School of Medicine, Palo Alto, CA
- Nov 2024 “Stanford Orthodontic Airway Plate Treatment Program (SOAP): Non-surgical Airway
Treatment for Neonatal Robin sequence”.
- Invited Speaker.
Department of Surgery Staff Lecture, New Clinical Programs,

Stanford University School of Medicine, Palo Alto, CA

- Sep 2025 "Stanford Orthodontic Airway Plate Treatment Program (SOAP): Non-surgical Airway Treatment for Neonatal Upper Airway Obstruction".
- Invited Speaker.
60th Anniversary of Division of Plastic and Reconstructive Surgery
Stanford University School of Medicine, Palo Alto, CA
- May 2026 (Invited) "Computed Tomography-based Computer-Aided Design Workflow to improve Access to Stanford Orthodontic Airway Plate Treatment for Neonates with Pierre Robin Sequence".
Invited Speaker.
Department of Surgery Grand Rounds,
Stanford University School of Medicine, Palo Alto, CA

• **REGIONAL:**

- Apr 2010 "Intraoral maxillary orthopedics for a newborn with cleft - Nasal Alveolar Molding".
- Invited Speaker and Panelist.
Pediatric Plastic Surgery Symposium at CHOP, Philadelphia, PA
- Apr 2010 "Early orthodontic treatment".
- Invited Speaker.
Western Maryland Health Education Center, Cumberland, MD
- Sep 2010 "Infant Maxillary Orthopedics for Newborns with Cleft Lip and Palate".
- Invited Speaker.
Division of Oral & Maxillofacial Surgery Grand Rounds,
University of California San Francisco, San Francisco, CA
- Apr 2013 "Craniofacial Orthodontics at The Children's Hospital of Philadelphia".
- Invited Speaker.
Alabama Orthodontic Alumni Annual Meeting, Birmingham, AL
- Aug 2016 "Craniofacial Orthodontics - Overview"
- Invited Speaker.
Cleft & Craniofacial Center, Kaiser Hospital, Oakland, CA
- Jan 2020 "Infant Maxillary Orthopedics for cleft care: Biocreative Infant Orthodontic Strategy".
- Invited Speaker.
Department of Otolaryngology - Head and Neck Surgery Grand Rounds,
Kaiser Hospital, Oakland, CA
- Oct 2022 "Stanford protocol for the management of neonatal obstructive sleep apnea using the nonsurgical Split Orthodontic Airway Plate".
- Invited Speaker.
15th Annual Educational Symposium, California Sleep Society, Sacramento, CA
- Dec 2025 "Stanford Orthodontic Airway Plate Treatment Program for Pierre Robin Sequence".
- Invited Speaker.
Neonatal Intensive Care Unit Grand Rounds
California Pacific Medical Center, San Francisco, CA

- **NATIONAL:**

- Jul 2010 “Orthodontic management for pediatric mandibular surgery of congenital deformity”.
- Invited Speaker.
Craniofacial Challenges & Advances: Distraction Course,
AO North America, Philadelphia, PA
- Apr 2012 “Simplified nasoalveolar molding to improve cleft lip and nasal reconstruction”.
- Invited Speaker.
Instructional Course (60 minutes).
69th American Cleft Palate Association Meeting, San Jose, CA
- Jan 2022 “Split Orthodontic Airway Plate treatment for neonates with Robin sequence” &
“Biocrete Alveolar Molding Plate) treatment for neonates with Cleft Lip and Palate”
- Visiting Professor.
Department of Orthodontics Grand Rounds,
Saint Louis University, Saint Louis, MO
- Mar 2022 “Disruptive therapy using a nonsurgical Orthodontic Airway Plate for the management of
neonatal Robin sequence”.
- Invited Speaker.
41st Annual Perinatal Potpourri Advances in Care, Mid-Coastal California Perinatal
Outreach Program, Palo Alto, CA
- Mar 2022 “1-year follow-up of two neonates with Robin sequence treated with nonsurgical
Orthodontic Airway Plate”.
- Invited Oral Presenter.
ENT/Airway/Audiology Session.
79th American Cleft Palate Association Annual Meeting, Fort Worth, TX
- May 2022 “Stanford protocol for the management of neonatal Robin sequence using the Orthodontic
Airway Plate”.
- Invited Speaker.
Refractory Obstruction Sleep Apnea Conference,
Seattle Children’s Hospital, Seattle, WA
- May 2023 “Nonsurgical management of neonatal Robin sequence using the Split Orthodontic Airway
Plate”
- Invited Oral Presenter.
Instructional Course (60 minutes).
80th American Cleft Palate Association Annual Meeting, Raleigh, NC
- Mar 2024 “Stanford Orthodontic Airway Plate Treatment Program (SOAP): A definitive nonsurgical
airway treatment for neonates with Robin sequence”
- Visiting Professor.
Department of Dental Specialties and Cleft & Craniofacial Center,
Mayo Clinic, Rochester, MN
- Apr 2024 “Weight Gain of Infants with Robin Sequence Treated Nonsurgically Using the
Stanford Orthodontic Airway Plate (SOAP): 1-Year Follow-Up”.
- Invited Oral Presenter.
General Session.
81st American Cleft Palate Association Annual Meeting, Denver, CO

- “Respiratory Improvement Following the Non-surgical Treatment using the Stanford Orthodontic Airway Plate for Infants with Robin Sequence”.
 - Invited Oral Presenter.
 ENT/Audiology/OMFS Session.
 81st American Cleft Palate Association Annual Meeting, Denver, CO
- May 2024 “Stanford Orthodontic Airway Plate Treatment Program”.
 - Invited Speaker and Panelist.
 Craniofacial Distraction: Indications, Alternatives, Long-Term Outcomes,
 New York University School of Medicine, New York City, NY
- Sep 2024 “Airway Management in Robin Sequence – Non-surgical Options”
 - Invited Speaker and Panelist.
 2024 Pediatric Plenary: Robin Sequence from Infancy to Adulthood,
 106th American Association of Oral and Maxillofacial Surgeons, New Orleans, FL
- Sep 2024 “Stanford Orthodontic Airway Plate Treatment Program (SOAP): Nonsurgical airway treatment for neonatal Robin sequence”.
 - Invited Speaker and Panelist.
 Event: Strategies for Airway Management in Robin Sequence
 93rd Annual Meeting of American Society of Plastic Surgeons (ASPS), Plastic Surgery
 The Meeting 2024, San Diego, CA
- Mar 2025 “Stanford Orthodontic Airway Plate Treatment Program (SOAP): Nonsurgical airway treatment for neonatal Pierre Robin sequence”.
 - Visiting Professor.
 Department of Surgery, Division of Plastic Surgery Grand Rounds,
 Duke University, School of Medicine, Durham, NC
- May 2025 “The Stanford Orthodontic Airway Plate Treatment Program (SOAP) for Neonatal Upper Airway Obstruction in Pierre Robin Sequence”.
 - Symposium Speaker and Panelist.
 Pre-Conference Symposium Title: “Catching up on sleep and cleft craniofacial care”
 82nd American Cleft Palate Association Annual Meeting, Palm Springs, CA
- “Near-Normalized Facial Skeleton and Upper Airway in Infants With Pierre Robin Sequence Treated With the Stanford Orthodontic Airway Plate Program: Computed Tomography Study”.
 - Invited Oral Presenter.
 General Session.
 82nd American Cleft Palate Association Annual Meeting, Palm Springs, CA
- May 2025 “The Stanford Orthodontic Airway Plate Treatment Program (SOAP): Facial skeleton and upper airway growth in infants with Robin sequence”
 - Invited Speaker.
 Department of Neonatology, Cleft and Craniofacial Grand Rounds,
 Kapi‘olani Medical Center for Women and Children, Honolulu, HI
- Dec 2025 “The Stanford Orthodontic Airway Plate: Nonsurgical alternative to mandibular distraction to treat neonatal upper airway obstruction in Pierre Robin Sequence”.
 - Invited Speaker and Panelist.
 Hot Topics in Neonatology 2025 Annual Meeting, Washington, D.C.

Jan 2026 "The Stanford Orthodontic Airway Plate Treatment Program: Nonsurgical alternative to surgical mandibular distraction to treat neonatal upper airway obstruction in Pierre Robin Sequence".
- Invited Speaker and Panelist in the debate on neonatal airway managements
Symposium on Cleft Lip and Palate Deformities and Cleft Syndromes
El Paso Children's Hospital, El Paso, TX

• **INTERNATIONAL:**

Jun 2009 "Growth guidance therapy for newborn babies with Cleft Lip and Palate".
- Invited Speaker.
Department of Orthodontics Grand Rounds,
St. Mary's Hospital, Seoul, Korea

Jun 2010 "Infant maxillary orthopedics for a newborn with facial clefts".
- Invited Speaker.
Department of Orthodontics Grand Rounds,
KyungHee University Hospital, Seoul, Korea

Sep 2011 "Craniofacial Orthodontics at CHOP".
- Invited Speaker.
Department of Orthodontics Grand Rounds,
KyungHee University Hospital, Seoul, Korea

Nov 2018 "Infant maxillary orthopedics for newborns with orofacial clefts".
- Invited Speaker.
Department of Orthodontics Grand Rounds,
KyungHee University Hospital, Seoul, Korea

Oct 2019 "Modified nasal alveolar molding for infants with facial cleft".
- Invited Speaker.
Department of Orthodontics Grand Rounds,
KyungHee University Hospital, Seoul, Korea

Oct 2019 "Infant Biocreative Orthodontic Strategy".
- Invited Speaker.
Korean Society of Speedy Orthodontics, Seoul, Korea

Apr 2022 "Stanford protocol for the management of neonatal Robin sequence".
- Invited Speaker and Panelist.
3rd Triennial International Robin Sequence Consensus Meeting,
Universitätsklinikum Tübingen University Hospital, Tübingen, Germany

Jun 2022 "Disruptive therapy using a nonsurgical Orthodontic Airway Plate for the management of neonatal Robin sequence".
- Invited Speaker.
49th Annual Meeting of Korean Cleft Palate Craniofacial Association, Seoul, Korea

Nov 2022 "Stanford protocol for the management of neonatal obstructive sleep apnea using a nonsurgical Split Orthodontic Airway Plate".
- Invited Speaker.
14th Annual Congress of Korean Academy of Dental Sleep Medicine, Seoul, Korea

- Jun 2023 “Split Orthodontic Airway Plate treatment for accelerated natural mandibular growth of Neonates with Robin sequence” .
- Invited Speaker.
CLEFT SEOUL 2023, The 15th World Congress ICPF, Seoul, Korea
- Jun 2023 “Dental specialist’s role in a Neonatal Intensive Care Unit for the management of neonatal airway and feeding difficulties” .
- Visiting professor.
KyungHee University Dental School and Hospital, Seoul, Korea
- Dec 2023 “Stanford Orthodontic Airway Plate Treatment Program (SOAP) for neonates with obstructive sleep apnea and dysphagia” .
- Invited Speaker.
Pediatric Sleep Research Annual Meeting,
Korean Child Neurology Society, Seoul, Korea
- Jul 2024 “Breathe, Sleep, Eat, and Grow: Nonsurgical management of neonatal Robin sequence using the Stanford Orthodontic Airway Plate Treatment Program (SOAP)” .
- David Precious Memorial Award Acceptance Speaker.
CLEFT TOKYO 2024, The 16th World Congress of ICPF, Tokyo, Japan
- “Accelerated mandibular and upper airway growth in infants with Robin sequence treated with Stanford Orthodontic Airway Plate Treatment Program”
- Invited Oral Presenter.
CLEFT TOKYO 2024, The 16th World Congress of ICPF, Tokyo, Japan
- Apr 2025 “The Stanford Orthodontic Airway Plate Treatment Program (SOAP): Facial skeleton and upper airway growth in infants with Robin sequence” .
- Invited Speaker and Panelist.
4th Triennial International Robin Sequence Consensus Meeting,
Hôpital Universitaire Necker, Paris, France
- “Evolution of the Stanford Orthodontic Airway Plate Treatment in the United States: TPP/OAP experience outside Germany: France and U.S.” .
- Session Chair and Invited Speaker.
4th Triennial International Robin Sequence Consensus Meeting,
Hôpital Universitaire Necker, Paris, France
- Oct 2025 “Orthodontic Treatment of Upper Airway Obstruction in Patients with Craniofacial Anomalies: Birth to Early Adulthood” .
- Symposium Chair and Invited Speaker.
Symposium title: “Multidisciplinary treatment of upper airway obstruction in patients with craniofacial Anomalies “
15th Quadrennial International Congress on Cleft Lip/Palate and Related Craniofacial Anomalies (ICCPA), Kyoto, Japan
- Nov 2025 “The Stanford Orthodontic Airway Plate: Nonsurgical alternative to mandibular distraction in neonates with Pierre Robin Sequence” .
- Invited Speaker and Panelist.
10th Asia Pacific Pediatric Otolaryngology Society conference (APPOS), Seoul, Korea
- Feb 2026 “The Stanford Orthodontic Airway Plate Treatment Program: Nonsurgical alternative to Mandibular distraction in neonates with Pierre Robin sequence” .

- Visiting Professorship.

The Hospital for Sick Children, Center for Craniofacial Care and Research,
University of Toronto, Division of Plastic Surgery, Toronto, Canada

Sep 2026

(Invited) The Stanford Orthodontic Airway Plate: Nonsurgical alternative to mandibular distraction to treat neonatal upper airway obstruction in Pierre Robin Sequence”.

- Invited Speaker.

18th International Congress of ICPF, Prague, Czech Republic