CURRICULUM VITAE

Heesoo Oh, D.D.S., Ph.D., M.S.D.

Professor and Chair, Department of Orthodontics University of the Pacific, Arthur A. Dugoni School of Dentistry 155 Fifth Street, San Francisco, CA, 94103 hoh@pacific.edu

EDUCATION:

2003 - 2005	University of the Pacific Arthur A. Dugoni School of Dentistry, San
	Francisco
	M.S.D. and Certificate, Orthodontics
2000 - 2001	University of the Pacific Arthur A. Dugoni School of Dentistry, San
	Francisco
	Certificate, Advanced Education in General Dentistry
1993 – 1999	Chonnam National University, School of Dentistry, Gwang-Ju, Korea
	Ph.D., Oral Biology
1989 – 1992	Chonnam National University, School of Dentistry, Gwang-Ju, Korea
	M.S. and Certificate, Pediatric Dentistry
1983 – 1989	Chonnam National University, School of Dentistry, Gwang-Ju, Korea
	D.D.S.

PRINCIPAL ACADEMIC APPOINTMENTS:

2019 - Present	Chair of Department of Orthodontics, University of the Pacific Arthur	
	A. Dugoni School of Dentistry, San Francisco	
2017 - 2018	Interim Chair of Department of Orthodontics, University of the	
	Pacific Arthur A. Dugoni School of Dentistry, San Francisco	
2017 – Present	Professor of Department of Orthodontics, University of the Pacific	
	Arthur A. Dugoni School of Dentistry, San Francisco	
2017 - Present	Director, Craniofacial Research Instrumentation Laboratory	
2013 - 2017	Associate Director, Craniofacial Research Instrumentation Laboratory	
	University of the Pacific Arthur A. Dugoni School of Dentistry, San	
	Francisco	
2011 - Present	Program Director of Graduate Orthodontics Program, University of	
	the Pacific Arthur A. Dugoni School of Dentistry, San Francisco	
2011 - 2017	Associate Professor, University of the Pacific Arthur A. Dugoni School	
	of Dentistry, San Francisco	
2010 - 2011	Acting Program Director of Graduate Orthodontics Program,	
	University of the Pacific Arthur A. Dugoni School of Dentistry, San	
	Francisco	

2005 – 2011 Assistant Professor of Orthodontics, University of the Pacific Arthur A. Dugoni School of Dentistry, San Francisco

MEMBERSHIPS IN PROFESSIONAL ORGANIZATIONS

- 2013 Present AAO Society of Orthodontic Educators
- 2011 Present The E.H. Angle Society of Orthodontists
- 2007 Present Diplomate of the American Board of Orthodontists
- 2003 Present American Association of Orthodontists
- 2003 Present Pacific Coast Society of Orthodontists
- 2001 Present International Association for Dental Research
- 2001 Present American Association for Dental Research

PROFESSIONAL SERVICE

2019 – present	AAO Full-time Fellowship Steering Committee member
2017 - present	Chair of curator's steering committee of the AAOF legacy Collection
2015 - Present	Thesis committee Chair and Board member of the E.H. Angle Society of
	Orthodontists
2015 - Present	Reviewer of Orthodontics and Craniofacial Research
2015	Clinical examiner for the 1 st year orthodontic residents at the University
	of Alberta, Canada
2015 - 2017	Member of curator's steering committee of the AAOF legacy Collection
2014 - 2017	Editor of 'Pearls of the Pacific' section in the PCSO Bulletin
2013 – Present	Reviewer of The Angle Orthodontist
2013 - Present	Reviewer of Progress in Orthodontics
2013 - Present	Examiner of the ABO Clinical examination
2011 - Present	Reviewer of IADR abstracts
2010 - Present	Reviewer of American Journal of Orthodontics & Dentofacial
	Orthopedics

HONORS AND AWARDS

2008-2011	American Association of Orthodontists - Full-Time Faculty Teaching (FFT) Fellowship Award, \$90,000
2009-2010	American Association of Orthodontists FOUNDATION
	- Orthodontic Faculty Development Fellowship Award, \$15,000
2008-2009	American Association of Orthodontists FOUNDATION
	- Orthodontic Faculty Development Fellowship Award, \$15,000
2006-2007	American Association of Orthodontists FOUNDATION
	- Orthodontic Faculty Development Fellowship Award, \$15,000
2018	Dr. Arthur A. Dugoni Excellence in Academic Teaching Award University of the Pacific, Arthur A. Dugoni School of Dentistry

2016	Dr. Arthur A. Dugoni Excellence in Academic Teaching Award University of the Pacific, Arthur A. Dugoni School of Dentistry
2011	Dr. Arthur A. Dugoni Excellence in Academic Teaching Award University of the Pacific, Arthur A. Dugoni School of Dentistry
2010	Dr. Arthur A. Dugoni Excellence in Academic Teaching Award University of the Pacific, Arthur A. Dugoni School of Dentistry
2005	Donald Poulton Academic Excellence Award University of the Pacific Arthur A. Dugoni School of Dentistry,

EXTRA-MURAL RESEARCH SUPPORT

Current

2022- 2027	AAOF Legacy Growth Collection project- Stage V	\$524,000
2021-2022	Align grant – design validation for the invisalign expander and the preformed attachment system	\$ 13,530
2008-2022	AAOF Legacy Growth Collection project- Stage I-IV	\$225,000
2017-2021	Principal Investigator, Align Technology - Development of PAR and ABO indices using Quantify	\$36,000 y program
2016-2020	Co- Principal Investigator, Clear Aligner Research Award - Accuracy of integrating intraoral scan models with Cl	\$55,000 BCT images
2019-2020	Principal Investigator, Clear Aligner Research Award - Stability of Anterior Open Bite Correction with Clear	\$25,000 Aligner Therapy
Submitted 2021 NIH-	R01 Co-investigator. Improved craniofacial growth standards: skeletal maturation	-based models
Completed R01 DE024 NIH/NIDCH	732-01A1 Sherwood/Oh (Multiple PI) 04/01/2015 – 03 R Craniofacial Growth Prediction in Different Facial Role: Co-Principal Investigator,	\$3,229,416
2014-2015	Co-Investigator, Clear Aligner Research Award,	\$25,000

2013-2014	American Association of Orthodontists FOUNDATION	
	- Biomedical Research Award,	\$25,000
	- Principal Investigator	
2011-2012	Co-Investigator, Clear Aligner Research Award,	\$50,000

PROFESSIONAL DEVELOPMENT

January 11-12, 2019 Chairs Leadership Program from the Academy for Academic Leadership (AAL), University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco

July 21-24, 2011 Chairs and Academic Administrators Management Program (CAAMP) from the Academy for Academic Leadership (AAL), University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco

August 14-15 & November 13-14, 2009 Center for Advancing Learning and Teaching (CalTEACH), Academy of Academic Leadership, University of the Pacific, Arthur A. Dugoni School of Dentistry, San Francisco

July 5-August 11, 2006 Summer Institute in Clinical Dental Research Methods University of Washington, Seattle

PUBLICATIONS-JOURNALS

- 2022 A Ghowsi, D Hatcher, H Suh, D Wiled, W Castro, J Krueger, J Park, <u>H Oh</u>. Automated landmark identification on cone beam computed tomography: Accuracy and reliability. Angle Orthod. (*In press*)
- 2022 H Suh, B Shen Garnett, K Mahood, N Mahjoub, RL Boyd, <u>H Oh</u>. Treatment of anterior open bites using non-extraction clear aligner therapy in adult patients. Korean J Orthod. (*In press*)
- 2022 N Dolatabadi, R Boyd, <u>H Oh</u>, Comparison between human judge and automatic landmark identification on digital models. Am J Orthod Dentofacial Orthop 2022, July.
- 2022 R Knigge, A Hardin, K Middleton, K McNulty, <u>H Oh</u>, M Valiathan, D Duren, R Sherwood. Craniofacial growth and morphology among intersecting clinical categories. Anat. Rec. 2022;1–32.
- 2022 M Josse, R Boero, D Chambers, <u>H Oh.</u> Effects of Long-term use of the Lower Lingual Arch from 8.5 years to 13.2 years. Angle Orthod, 2022;92:189-96.

- 2022 L Phi, B Albertson, D Hatcher, S Rathi, J Park, <u>H Oh</u>. Condylar degeneration in anterior open bite patients: A cone-beam computed tomography (CBCT) study. Oral Surg Oral Med Oral Pathol Oral Radiol. 2022;133:221-228.
- Gao J, Nguyen T, Oberoi S, <u>Oh H</u>, Kapila S, Kao RT, Lin GH. The Significance of Utilizing A Corticotomy on Periodontal and Orthodontic Outcomes: A Systematic Review and Meta-Analysis. Biology. 2021, 19;10:803.
 doi: 10.3390/biology10080803. PMID: 34440034; PMCID: PMC8389689.
- 2021 R Knigge, K McNulty, <u>H Oh</u>, A Hardin, E Leary, D Duren, M Valiathan, R Sherwood. Geometric morphometric analysis of growth patterns among facial types. Am J Orthod Dentofacial Orthop 2021, Sep; 160(3): 430–441.
- 2021 Hardin AM, Knigge RP, <u>Oh HS</u>, et al. Estimating Craniofacial Growth Cessation: Comparison of Asymptote- and Rate-Based Methods. The Cleft Palate-Craniofacial Journal. May 2021. doi:10.1177/10556656211002675
- 2020 R Sherwood, <u>H Oh</u>, M Valiathan, K McNulty, D Duren, R Knigge, A Hardin, C Holzhauser, K Middleton. Bayesian Approach to Longitudinal Craniofacial Growth: The Craniofacial Growth Consortium Study. Anat. Rec. 2020;1–29.
- 2020 A Hardin, M Valiathan, <u>H Oh</u>, R Knigge, K McNulty, E Leary, D Duren, R Sherwood. Clinical implications of age-related change of the mandibular plane angle. *Orthod Craniofac Res.* 2020;23:50–58.
- 2020 Currie K, <u>Oh H</u>, Flores-Mir C, Lagravère M. CBCT assessment of posterior cranial base and surrounding structures in orthodontically treated adolescents. Int Orthod. 2020 Jun;18(2):266-275.
- 2020 Chen G, Al Awadi M, Chambers DW, Lagravère-Vich MO, Xu T, <u>Oh H</u>. The three-dimensional stable mandibular landmarks in patients between the ages of 12.5 and 17.1 years. BMC Oral Health. 2020 May 27;20(1):153.
- 2020 A Joy, J Park, D Chambers, <u>H Oh</u>. Airway and cephalometric changes in adult orthodontic patients after premolar extractions. *Angle Orthod*, 2020;90:39–46.
- 2019 <u>H Oh</u>, R Knigge, A Hardin, R Sherwood, D Duren, M Valathan, E Leary, K McNulty. Predicting Adult Facial Type From Mandibular Landmark Data At Young Ages. *Orthod Craniofac Res. 2019 May;22 Suppl 1:154-162*.
- 2019 <u>H Oh</u>, Park J, M Lagravere-Vich. Comparison of traditional RPE with two types of micro-implant assisted RPE: CBCT study. *Semin Orthod 2019; 25:60–68*.
- 2019 Park J, S Baumrind, Curry S, Carlson S, <u>H Oh</u>. Reliability of 3D dental and skeletal landmarks on CBCT images. *Angle Orthod. 2019;89:758-767*.

- 2019 Thereza-Bussolaro C, <u>Oh HS</u>, Lagravère M, Flores-Mir C. Pharyngeal dimensional changes in class II malocclusion treatment when using Forsus® or intermaxillary elastics - An exploratory study. Int Orthod. 2019 Dec;17(4):667-677.
- 2019 A Sam, K Currie, <u>H Oh</u>, C Flores-Mir, M Lagravere-Vich. Reliability of different 3D cephalometric landmarks in CBCT: A systematic review. *Angle Orthod.* 2019;89:317–332.
- 2019 B Garnett, K Mahood, M Nguyen, A Al-Khateeb, S Liu, R Boyd, <u>H Oh.</u> Cephalometric comparison of adult anterior open bite treatment using clear aligners and fixed appliances. *Angle Orthodontist*, 2019;89:3-9.
- 2017 S Liu, <u>H Oh</u>, D Chambers, S Baumrind, T Xu. Interpreting Weightings of the Peer Assessment Rating Index and the Discrepancy Index across Contexts on Chinese Patients. *European Journal of Orthodontics*, 2017, 1–7.
- 2017 S Liu, <u>H Oh</u>, D Chambers, X Weng, Q Chen, S Baumrind, T Xu. Validity and reliability of the ABO Discrepancy Index and PAR Index (Peer Assessment Rating) for evaluating malocclusion severity among Chinese orthodontists. *Orthodontics and Craniofacial Research*, 2017;20:140–145
- 2017 K Currie, D Sawchuk, H Saltaji, <u>H Oh</u>, C Flores-Mir, M Lagravere-Vich. Posterior cranial base natural growth and development: A systematic review. *Angle Orthodontist*, 2017;87:897–910
- 2017 Y Xu, <u>H Oh</u>, M Lagravere-Vich. Malocclusion Class II-Division 1 skeletal and dental relationships measured by Cone-Beam Computed Tomography. *International journal of Orthodontics 2017; 15 : 365-387.*
- 2017 HS Hwang, MH Oh, HK Oh, <u>H Oh</u>. Surgery-first approach in correcting skeletal Class III malocclusion with mandibular asymmetry. *Am J Orthod Dentofacial Orthop 2017;152:255-67*
- 2017 M Afrand, <u>H Oh</u>, C Flores-Mir, M Lagravere-Vich. Growth changes in the anterior and middle cranial bases as assessed through cone-beam computed tomography in adolescents. *Am J Orthod Dentofacial Orthop* 2017;151:342-350.
- 2017 <u>H Oh</u>, S Baumrind, S Dugoni, R Boero, M Aubert, R Boyd. A retrospective study of Class II mixed-dentition treatment. *Angle Orthodontist 2017; 87:56-67*
- 2016 <u>H Oh</u>, N Ma, P Feng, K Kieu, R Boero, S Dugoni, M Aubert, D Chambers. Evaluation of Post-treatment stability following orthodontic treatment in the mixed and permanent dentitions. *Angle Orthodontists 2016; 86:1010-1018*

- 2014 <u>H Oh</u>, K Herchold, et al. Orthodontic tooth movement through the maxillary sinus in an adult patient with multiple missing teeth. *American Journal of Orthodontics* & Dentofacial Orthopedics 2014;146:493-505
- 2010 T-M Xu, X Zhang, <u>HS Oh</u>, R Boyd, EL Korn, S Baumrind: A Randomized Clinical Trial (RCT) Comparing Maxillary Molar Anchorage Loss Using Two Retraction Techniques. *American Journal of Orthodontics & Dentofacial Orthopedics*, 2010;138:544.e1-544.e9.
- 2009 <u>HS Oh.</u> EL Korn, XY Zhang, Y Liu, T-M Xu, R Boyd, S Baumrind: Correlation between cephalometric and photographic measurements of facial attractiveness in Chinese and U.S. patients at the end of orthodontic treatment. *American Journal* of Orthodontics & Dentofacial Orthopedics, 2009;136:762.e1-762.e14.
- 2009 Y Liu, EL Korn, <u>HS Oh</u>, H Pearson, T-M Xu, S Baumrind: Comparison of Chinese and U.S. Orthodontists' Averaged Evaluations of "Facial Attractiveness" from End-of-Treatment Facial Photographs. *American Journal of Orthodontics & Dentofacial Orthopedics* 2009;135:621-34.
- 2008 T-M Xu, EL Korn, Y Liu, <u>HS Oh</u>, KH Lee, S Baumrind: "Facial Attractiveness": Ranking of End-of-Treatment Facial Photographs by Chinese and U.S. Orthodontists. *American Journal of Orthodontics & Dentofacial Orthopedics* 2008;134:74-84
- 2001 Lee SK, Kim YS, <u>Oh HS</u>, Yang KH, Kim EC, Chi JG.: Prenatal development of the human mandible. *The Anatomical Record.* 1;263(3):314-25.
- 1992 <u>Oh HS</u>, Yang KH : A study on the relationship between pubertal growth spurt, skeletal maturity stage of the Han-wrist, tooth calcification stage and jaw growth in normal. *Journal of the Korean Academy of Pedodontics, vol.19, No.2,*

INVITED PRESENTATION

June 25, 2022	Interactive talk 'Craniofacial Growth Percentiles based on the Craniofacial Growth Consortium Study' 2022 IADR/APR meeting.	
June 3, 2022	AAOF Craniofacial Growth legacy collection, San Francisco	
May 21, 2022	Predictors of success for early mixed dentition Treatment, Annual meeting of the American Association of Orthodontists, Miami, FL	
May 2, 2020	Mixed Dentition Treatment, Annual meeting of the American Association of Orthodontists, Atlanta, GA (Meeting was cancelled due to COVID-19 pandemic)	

- March 30-31, 2020 18th Kuwait Association for Dental Research Conference: Updates in Tissue Engineering. Kuwait City, Kuwait (Meeting was cancelled due to COVID-19 pandemic).
- October 3, 2019 2019 Annual Scientific Congress, 60th anniversary of the Korean Association of Orthodontists, COEX, Seoul, Korea "Effectiveness of early Class II treatment"
- September 13, 2018 INNOVATORS' WORKSHOP on Personalized and Precision Orthodontics, Consortium for Orthodontic Advances in Science and Technology (COAST), Scottsdale, Arizona
- April 25, 2017 Early Class II Treatment, 117th Annual Meeting of the American Association of Orthodontists, San Diego, CA
- September 29, 2015 Evaluation of Posttreatment changes following orthodontic treatment. Edward H. Angle Society 2015 Biennial Meeting, Pasadena, CA
- May 16, 2015 Point/Counterpoint: Early Treatment for Class II, 115th Annual Meeting of the American Association of Orthodontists, San Francisco, CA
- March 28, 2015 Evaluation of Post-treatment changes following orthodontic treatment. Northern California Angle Society meeting, San Francisco, CA
- February 8, 2015 'Early Class II Treatment', at the winter conference of the American Association of Orthodontists, Miami, Florida
- November 1, 2013 'Surgery-First Approach in skeletal Class III malocclusion', Northern California Angle Society meeting, San Francisco, CA
- January 25, 2013 'Vertical Control', Northern California Angle Society meeting, San Francisco, CA
- September 19, 2011 'Growth changes in Early treatment: A cephalometric evaluation' Edward H. Angle Society 2011 Biennial Meeting, Charleston, SC
- September 25, 2009 'Mixed dentition study at the UOP' in Northern California Angle Society meeting, San Francisco, CA