



STATE OF OHIO

Executive Department

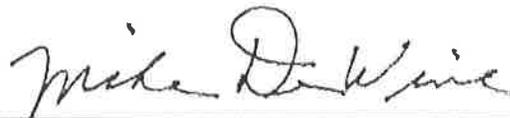
OFFICE OF THE GOVERNOR

Columbus

I, Mike DeWine, Governor of the State of Ohio, do hereby appoint Manish Valiathan, from Pepper Pike, Cuyahoga County, Ohio, as a Member of the Radiation Advisory Council for a term beginning June 4, 2021 and ending at the close of business September 6, 2025, replacing Fady Faddoul, who resigned.



IN WITNESS WHEREOF, I have hereunto subscribed my name and caused the Great Seal of the State of Ohio to be affixed, at Columbus, this 4th day of June in the year of our Lord, Two Thousand and Twenty One.



Mike DeWine
Governor

**Curriculum Vitae
2021**

Name Manish Valiathan

Academic office address Associate Professor, Department of Orthodontics
School of Dental Medicine
Case Western Reserve University, 9601 Chester Avenue
Cleveland, Ohio 44106-4905.

Contact Tel. 216 368 0673
Fax. 216 368 0145
Email. manish.valiathan@case.edu

Practice office address 8600 Alexandria Drive, Suite B, Macedonia, OH. 44056

Contact Tel. 330 467 2763
Fax. 330 467 2768
Email. valiathan@summitspecialists.com

Education:

Institution	Degree	Field of study	Year
Case Western Reserve University Cleveland, OH	Doctor of Dental Surgery (DDS)	Dentistry	2000-02
Case Western Reserve University Cleveland, OH	Master of Science in Dentistry (MSD)	Orthodontics	1997-99
College of Dental Surgery Manipal, India	Master of Dental Surgery (MDS)	Orthodontics	1993-95
College of Dental Surgery Manipal, India	Bachelor of Dental Surgery (BDS)	Dentistry	1988-93

Academic Appointments:

Interim Director, Faculty Practice 2021

Assistant Dean for Clinical Affairs May17th, 2018-current

Interim Assistant Dean for Clinical Affairs: Jan- May 2018

Program Director,

Fellowship in Surgical, Craniofacial and Special Care orthodontics.	2010-present
Adjunct Faculty, Manipal College of Dental Surgery, India.	2017-present
Associate Professor, (with Tenure) Department of Orthodontics	July 1 st , 2011
Associate Director, Bolton Brush Growth Study Center	2011-present
Assistant Professor (Tenure track), Departments of Orthodontics and Department of Pediatric Dentistry, C.W.R.U.	2001-10
Assistant Professor (Non-Tenure track), Departments of Orthodontics and Department of Pediatric Dentistry, C.W.R.U.	1999-2001
Visiting Professor, Department of Orthodontics College of Dental Surgery Manipal University, India	2006-2013
Acting Chair and Program Director, Department of Orthodontics, Case Western Reserve University	Jan–July 2004
Visiting Assistant Professor, Department of Orthodontics, C.W.R.U. 1996–1997	1996-97
Assistant Professor, Department of Orthodontics, College of Dental Surgery, Manipal, India.	1996
Secondary Academic Appointment	
Assistant/Associate Professor, Department of Pediatric Dentistry	2001-2018
Assistant/Associate Professor, Department of Plastic Surgery School of Medicine, Case Western Reserve University	2009-present
Hospital Consultant:	
Craniofacial Anomalies Team, Rainbow Babies and Children’s Hospital.	1996- 1997 1999-present
Specialty Certification Status:	
Diplomate of the American Board of Orthodontics.	2007-present.
Licensure Status:	

Passed the North East Regional Board. 2003

Ohio State Dental license: 21785 2003-present

A License from any state in India carries with it the right to practice in all states of India (Registration Number 2912-A).

Academic Honors and Awards:

International College of Dentists 2019

Outstanding Administrative Faculty Award from the student council, SoDM. 2019

Annual Staff Appreciation Award from the staff at the SoDM, CWRU 2018

Young Achiever Award: Awarded by Manipal University (India) on the occasion of the College of Dental Surgery Golden Jubilee Celebration. 2016.

Fellow of the Pierre Fauchard Academy, India Section. 2007

Member OKU, Case Western Reserve University Chapter 2006

Anthony A. Gianelly Teaching Fellowship Award, American Association of Orthodontists Foundation. 2002

T. M. Graber Teaching Fellowship Award, American Association of Orthodontists Foundation. 2000

Recognition in teaching:

International Continuing education course on Orthodontics and Orthognathic surgery. Conducted in collaboration with University Hospitals Birmingham NHS Trust, Queen Elizabeth Hospital, Edgbaston U.K. Conducted at the Institute of Dental Sciences and Technology, Modinagar, India. 2010

Department of Orthodontics Certificate of Appreciation for participation in the International Training Program. September 9-16th, 2009

Department of Orthodontics Certificate of Excellence and Appreciation 2007

Department of Orthodontics Certificate of Excellence and Appreciation 2004

Department of Orthodontics Certificate of Excellence and Appreciation 2003

Department of Orthodontics Certificate of Excellence and Appreciation 2002

Department of Orthodontics Certificate of Excellence and Appreciation 2001

Best student clinical paper award. Title: "Impactions in Orthodontics."
29th Indian Orthodontic Conference, Kodaikanal. 1994

Student Awards

Ashleigh Kmennt, Omicron Kappa Upsilon Oral Presentation Award at the
Annual Professionals Day, SODM. 2019

Rany Bous, BDS., MSD. American Academy of Pediatrics Section on Oral Health.
Best Oral Health Poster Abstract Award; A Multi-Informant Evaluation of the
Psycho-Social Well-Being of Adolescents with Craniofacial Conditions. 2019

Tarek ElShebiny DDS., MSD. Craniofacial and Special Care Training Award
from the AAOF which carries with it a \$30,000 reward. 2017-18

Lindsey Schilling DDS. MSD. A comparison of crown and root position
before and after orthodontic treatment. 2010
(B Holly Broadbent Award for Research)

Matt Hall.
Evaluating orthodontic trends over four decades using the ICON index. 2008
(Best clinical science presenter award, Professionals Day, CWRU, SODM)

Amir Aminoshariae.
Pre-treatment complexity and post treatment outcomes evaluated using the PAR index. 2008
(Best clinical science presenter award, Professionals Day, CWRU, SODM)

Priyanka Patel
DI and ABOGS in the evaluation of orthodontic treatment over four decades. 2008
(Best clinical science presenter award, Professionals Day, CWRU, SODM)

Justina D'Augostini.
Comparison of Indices. 2007
(Best Clinical Science Presenter Award Professionals Day, CWRU, SODM)

Jeddiah Gass, D.D.S.
Thesis Advisor. Familial occurrence of midline diastemas. 2000
(Research award from the Department of Orthodontics)

Professional and Academic Societies:

American Cleft palate and Craniofacial Association 2010-present

World Federation of Orthodontists	2010-15
American Dental Education Association	2006-present
Ohio Dental Association	2004-present
Greater Cleveland Dental Society	2004-present
Cleveland Society of Orthodontists	2003-present
International/American Association of Dental Research	2000- 2011
Great Lakes Association of Orthodontists	1999- present
American Association of Orthodontics	1997- present
American Dental Association	1997- present
Indian Orthodontic Society	1993- present
Indian Dental Association	1988- present

Professional Service:

National Committees:

Co-Chair, Honors and Awards Selection Panel, ACPA	2020
Senior Clinical Advisory Committee; President of Exan	2019-present
Consortium on Oral Health Research Initiative (COHRI), Board of Directors	2019-22
Program Task Force of the 76th ACPA	2018
Abstract Review Committee, 76th ACPA	2018
ACPA Mentorship program member	2017
Honors and Awards Panel of the American Cleft Palate Association	2017-present
Cleft Palate Foundation Scholarship Committee	2016-17.

Education committee of the American Cleft Palate Association	2015
Parameters Committee of the American Cleft Palate Association	2015-16
JCEG; (Joint Cephalometric Experts Group). Founding and current member	2007-present

Local Committees

Selection committee for Director of Dental Services at Metro General Hospital	2020
President, Cleveland Society of Orthodontists	2020-21
President elect, Cleveland Society of Orthodontists	2019-20
Treasury Secretary, Cleveland Society of Orthodontists	2018-19
Public Relations Chairman, Cleveland Society of Orthodontists	2017-18
Elected Board Member, Cleveland Society of Orthodontists	2016-17
Selection committee for Chief of Pediatric Plastics, University Hospitals	2015

Review and Editorial Boards:

Editorial Board: International Archives of Oral and Maxillofacial Surgery	2017-present
Reviewer: Journal of Cleft Lip Palate and Craniofacial anomalies	2017-present
Reviewer: Cleft Palate-Craniofacial Journal	2016-present
Reviewer: Sleep and Journal of Clinical Sleep Medicine	2015-present
Advisory Board, Manipal Journal of Dental Sciences.	2016-present.
International Editorial Advisory Board, Archives Medicine & Health Sciences Journal	2013-15
Review Board, Saudi Dental Journal	2012-15
Review Board, Journal of Indian Orthodontic Society	2011-14
Review Board, The Cleft Palate-Craniofacial Journal	2010-present

Editorial Board, Indian Journal of Dental Sciences.	2010-present
Advisory Board, Clinical Dentistry and Research	2010-present
Editorial Review Board, Angle Orthodontist,	2010-present
Review Board, American Journal of Orthodontics and Dentofacial Orthopedics	2000-present
Review Board, The Cleft Palate-Craniofacial Journal	2000-03
Review Board, Journal of the Indian Orthodontic Society	2001-03
Committees at Case Western Reserve University	
Data governance committee of UTech, CWRU	2019
Deans review committee appointed by the Provost	2019
VP UTech Cabinet	2018-present
Faculty Seed Grant selection committee for Internationalization:	2012-17
Provost's Committee on Planning for Internationalization	2004-05
Committees and service at the CWRU, SODM:	
Orthodontics and Craniofacial Orthodontics Club; Co-advisor	2020-present
Outcomes assessment committee	2020
Craniofacial Orthodontics Club; Advisor	2018-2020
Marshal at SODM Commencement	2018-present
Student Standing and Promotions Committee	2018-present
Executive and Budget Committee	2018-present
Technology committee	2017-present
Chair, Clinical Affairs Committee	2017-present
Co-Director, Electronic Health Record Roll out Team	2017

Chair, Graduate Studies	2015-18
Pre-doctoral admissions committee School of Dental Medicine	2012-18
Graduate Studies	2011-present
Department of Pediatric Dentistry Residency Admission Committee	2000-17
Faculty/Student Relations	2008-11
Executive Board	2008-14
Outcomes Assessment Committee	2004-07
Search Committee for Chair of Pediatric Dentistry	2005
Committee for preparation of Infrastructure Grant Submitted to the NIDCR in response to an RFA.	2003-04
Committee on Clinical Affairs	2001-03
Department of Orthodontics Graduate Admissions Committee	1999-present

Theses and Dissertations:

Valiathan M. Comparing Cephalometrics Based Clinical Decisions Among Experienced Orthodontists and Two Software Programs. Master's Thesis, Department of Orthodontics, Case Western Reserve University, Cleveland, Ohio. 1999.

Valiathan M. Cephalometric Norms and Differences Between North Indian and South Indian Skeletal and Soft Tissue Profiles Using the Jarabak, Holdaway and Powell Analyses. Master's Thesis, Department of Orthodontics, Manipal, India. 1995.

Valiathan M. Dissertation on Magnets in Orthodontics. Submitted in partial fulfillment of the requirements for M.D.S. Manipal, India. 1995.

Scopus indexed publications (including accepted articles):

1. Hardin AM, Knigge R, Oh H, **Valiathan M**; Duren D, McNulty K, Middleton K, Sherwood R. Estimating Craniofacial Growth Cessation: Comparison of Asymptote- and Rate-based Methods. The Cleft Palate-Craniofacial Journal. *In press*, accepted for publication, February 2021.

2. Knigge RP, McNulty KP, Oh HS, Hardin AM, Leary EV, Duren DL, **Valiathan M**, Sherwood RJ. *In press*. Geometric morphometric analysis of growth patterns among facial types. *American Journal of Orthod Dentofacial Orthop*.
3. Janes L, Bazina M, Sherif M, Ukaigwe A, **Valiathan M**, Jacobson R, Gosain A. The Relationship Between Dental Agenesis and Maxillary Hypoplasia in Patients with Cleft Lip and Palate. *In press: Journal of Craniofacial Surgery*. Accepted January 2021.
4. Bous RM, Kochenour N, **Valiathan M**. Author's response. *Am J Orthod Dentofacial Orthop*. 2021 Feb; 159(2):e87. doi: 10.1016/j.ajodo.2020.11.016. PMID: 33546839.
5. Apostolopoulos K, Bous RM, ElNaghy R, Kumar AR, **Valiathan M**. Examining the variability of bone and soft tissue morphology in Hemifacial Microsomia: A case series of 8 patients. *J Craniomaxillofac Surg*. 2021 Feb 12:S1010-5182(21)00048-2. doi: 10.1016/j.jcms.2021.02.002. Epub ahead of print. PMID: 33612409.
6. Bous RM, Apostolopoulos K, **Valiathan M**. When convenience trumps quality of care: A population-based survey on direct to consumer orthodontics. *Am J Orthod Dentofacial Orthop*. 2021 Feb 26:S0889-5406(21)00065-2. doi: 10.1016/j.ajodo.2020.10.025. Epub ahead of print. PMID: 33648802.
7. ElNaghy R, Bous R, Chinoy A, Kumar A, **Valiathan M**. A Qualitative Assessment of Bone Mineral Density in Individuals With Hemifacial Microsomia: A Cone-Beam Computed Tomography Study. *Cleft Palate Craniofac J*. 2020 Nov 28:1055665620975638. doi: 10.1177/1055665620975638. Epub ahead of print. PMID: 33251829.
8. Bous RM, Kochenour N, **Valiathan M**. A novel method for fabricating nasoalveolar molding appliances for infants with cleft lip and palate using 3-dimensional workflow and clear aligners. *Am J Orthod Dentofacial Orthop*. 2020 Sep; 158(3):452-458. doi: 10.1016/j.ajodo.2020.02.007. Epub 2020 Jul 21. PMID: 32709578.
9. Sherwood RJ, Oh HS, **Valiathan M**, McNulty KP, Duren DL, Knigge RP, Hardin AM, Holzhauser CL, Middleton KM. Bayesian approach to longitudinal craniofacial growth: The Craniofacial Growth Consortium Study. *Anat Rec (Hoboken)*. 2020 Oct 4. doi: 10.1002/ar.24520. Epub ahead of print. PMID: 33015973.
10. Bous R, Kmentt A, Lyamichev A, **Valiathan M**. Bias in a Blink: Shedding Light on Implicit Attitudes Toward Individuals with a Cleft Lip. *In press*. *American Journal of Orthod Dentofacial Orthop*.
11. Bous RM, Shah P, Elnaghy R, ElShebiny T, **Valiathan M**. Comparison of the Pharyngeal Airway Volume Between Patients With Ectodermal Dysplasia and Unaffected Controls: A Cone-Beam Computed Tomography Study. *J Oral Maxillofac Surg*. 2020 Sep; 78(9):1629.e1-1629.e9. doi: 10.1016/j.joms.2020.04.014. Epub 2020 Apr 18. PMID: 32417317.

12. ElShebiny T, Bous R, Withana T, Morcos S, **Valiathan M**. Accuracy of Three-Dimensional Upper Airway Prediction in Orthognathic Patients Using Dolphin Three-Dimensional Software, *J Craniofac Surg*. 2020 Jun;31(4):1098-1100. doi: 10.1097/SCS.00000000000006566. PMID: 32487834.
13. Bous RM, Hazen RA, Bous I, Palomo JM, Kumar A, **Valiathan M**. Psychosocial Adjustments Among Adolescents With Craniofacial Conditions and the Influence of Social Factors: A Multi-Informant Study. *Cleft Palate Craniofac J*. 2020 May; 57(5):624-636. doi: 10.1177/1055665619888308. Epub 2019 Nov 26. PMID: 31769310.
14. Hardin AM, **Valiathan M**, Oh H, Knigge RP, McNulty KP, Leary EV, Duren DL, Sherwood RJ. Clinical implications of age-related change of the mandibular plane angle. *Orthod Craniofac Res*. 2020 Feb; 23(1):50-58. doi: 10.1111/ocr.12342. Epub 2019 Oct 1. PMID: 31465622; PMCID: PMC6980205.
15. Oh H, Knigge R, Hardin A, Sherwood R, Duren D, **Valiathan M**, Leary E, McNulty K. Predicting adult facial type from mandibular landmark data at young ages. *Orthod Craniofac Res*. 2019 May; 22 Suppl 1(Suppl 1):154-162. doi: 10.1111/ocr.12296. PMID: 31074133; PMCID: PMC6512854.
16. Son JH, Marshall DC, **Valiathan M**, Otteson T, Ferretti G, Grigorian PA, Rosen C, Becker D, Rowe D, Soltanian H, Lakin G. Innovative Surgical Treatment of Severe Cherubism. *Cleft Palate Craniofac J*. 2019 Jan; 56(1):90-93. doi: 10.1177/1055665618774008. Epub 2018 May 22. PMID: 29787301.
17. ElShebiny T, Morcos S, Mohammad A, Quereshy F, **Valiathan M**. Accuracy of Three-Dimensional Soft Tissue Prediction in Orthognathic Cases Using Dolphin Three-Dimensional Software. *J Craniofac Surg*. 2019 Mar/Apr; 30(2):525-528. doi: 10.1097/SCS.00000000000005037. PMID: 30358749.
18. Hans MG, Konstantinos IT, Cain AD, Sherif E and **Valiathan M**. Animal studies in orthodontics – Are they useful for clinicians? *Seminars in Orthodontics*. 23. 10.1053/j.sodo.2017.07.006.
19. Bazina M, Cevidanes L, Ruellas A, **Valiathan M**, Quereshy F, Syed A, Wu R, Palomo JM. Precision and reliability of Dolphin 3-dimensional voxel-based superimposition. *Am J Orthod Dentofacial Orthop*. 2018 Apr; 153(4):599-606. doi: 10.1016/j.ajodo.2017.07.025. PMID: 29602352.
20. Yehya Mostafa R, Bous RM, Hans MG, **Valiathan M**, Copeland GE, Palomo JM. Effects of Case Western Reserve University's transverse analysis on the quality of orthodontic treatment. *Am J Orthod Dentofacial Orthop*. 2017 Aug; 152(2):178-192. doi: 10.1016/j.ajodo.2017.01.018. Erratum in: *Am J Orthod Dentofacial Orthop*. 2019 May; 155(5):618. PMID: 28760280.

21. Aminoshariae A, Aminoshariae A, **Valiathan M**, Kulild JC. Association of genetic polymorphism and external apical root resorption. *Angle Orthod*. 2016 Nov; 86(6):1042-1049. doi: 10.2319/011916-50.1. Epub 2016 May 5. PMID: 27148771.
22. Hans MG, Palomo JM, **Valiathan M**. Authors' response. *Am J Orthod Dentofacial Orthop*. 2016 May; 149(5):591-2. doi: 10.1016/j.ajodo.2016.02.002. PMID: 27131235.
23. Hans MG, Palomo JM, **Valiathan M**. History of imaging in orthodontics from Broadbent to cone-beam computed tomography. *Am J Orthod Dentofacial Orthop*. 2015 Dec; 148(6):914-21. doi: 10.1016/j.ajodo.2015.09.007. PMID: 26672697.
24. Hans M, **Valiathan M**, Palomo JM, Murphy N, McNamara J. Donald Hugh Enlow, 1927-2014. *Am J Orthod Dentofacial Orthop*. 2014 Oct; 146(4):537-8. doi: 10.1016/j.ajodo.2014.07.010. PMID: 25381679.
25. Brown MS, Okada H, **Valiathan M**, Lakin GE. 45 Years of Simultaneous Le Fort III and Le Fort I Osteotomies: A Systematic Literature Review. *Cleft Palate Craniofac J*. 2015 Jul; 52(4):471-9. doi: 10.1597/14-005R. Epub 2014 Oct 2. PMID: 25275537.
26. Nahhas RW, **Valiathan M**, Sherwood RJ. Variation in timing, duration, intensity, and direction of adolescent growth in the mandible, maxilla, and cranial base: the Fels longitudinal study. *Anat Rec (Hoboken)*. 2014 Jul; 297(7):1195-207. doi: 10.1002/ar.22918. Epub 2014 Apr 15. PMID: 24737730; PMCID: PMC4103980.
27. Phoenix A, **Valiathan M**, Nelson S, Strohl KP, Hans M. Changes in hyoid bone position following rapid maxillary expansion in adolescents. *Angle Orthod*. 2011 Jul; 81(4):632-8. doi: 10.2319/060710-313.1. Epub 2011 Feb 9.
28. Hans MG, **Valiathan M**, Palomo JM. Cone Beam Computerized Tomography: A link to the past, a Promise for the Future. *Semin Orthod*. 2011; 1:81-87.
29. Lyotard N, Hans M, Nelson S, **Valiathan M**. Short-term post orthodontic changes in the absence of retention. *Angle Orthod*. 2010 Nov; 80(6):1045-50. doi: 10.2319/010210-7.1. PMID: 20677953.
30. **Valiathan M**, El H, Hans MG, Palomo MJ. Effects of extraction versus nonextraction treatment on oropharyngeal airway volume. *Angle Orthod*. 2010 Nov; 80(6):1068-74. doi: 10.2319/010810-19.1. PMID: 20677956.
31. **Valiathan M**, Hughes E. Results of a survey-based study to identify common retention practices in the United States. *Am J Orthod Dentofacial Orthop*. 2010 Feb; 137(2):170-7; discussion 177. doi: 10.1016/j.ajodo.2008.03.023.
32. Kacer KA, **Valiathan M**, Narendran S, Hans MG. Retainer wear and compliance in the first 2 years after active orthodontic treatment. *Am J Orthod Dentofacial Orthop*. 2010 Nov; 138(5):592-8. doi: 10.1016/j.ajodo.2008.12.027.

33. Hans MG., **Valiathan M.** Bobbing for apples in the Garden of Eden. *Semin Orthod* 11. No 2, 2005: 86-93.
34. Gass JR, **Valiathan M**, Tiwari HK, Hans MG, Elston RC. Familial correlations and heritability of maxillary midline diastema. *Am J Orthod Dentofacial Orthop.* 2003 Jan; 123(1):35-9. doi: 10.1067/mod.2003.56.
35. **Valiathan M**, Valiathan A, Iyer M. Impactions in orthodontics. *J Philipp Dent Assoc.* 1999 Jun-Aug; 51(1):22-28.

Other Refereed Publications:

36. Bous RM, Kumar A, **Valiathan M.** Multidisciplinary Rehabilitation of an Adult with a Cleft Lip and Palate: An Illustration of a Dental Substitution Approach for the Management of Unilateral Agenesis of Central and Lateral Incisors. *FACE.* February 2021. doi:[10.1177/2732501621992440](https://doi.org/10.1177/2732501621992440)
37. Orabi N, ElShebiny T, Qureshy F, **Valiathan M.** An Alternative Approach for Treatment of Impacted Teeth: Auto transplantation of an Impacted Central Incisor, a Three-year Follow- Up. *In press.* *Journal of Clinical Orthodontics.* Nov 2020
38. Canepa I, ElShebiny T, **Valiathan M.** OSA Prevalence in a General Pediatric Craniofacial Population. *J Dent Sleep Med.* 2019; 6(3).
39. Faisal A Qureshy, Nikolay Levintov, Justin L Nguyen, Maria A DeLeonibus, Catherine Demko, Mohamed Bazina, **Manish Valiathan**, Dale A Baur. The Role of Virtual Surgical Planning in Increasing the Predictability in Orthognathic Surgery. *Journal of Dental and Maxillofacial Surgery.* DOI [10.18314/jdms.v2i1.1633](https://doi.org/10.18314/jdms.v2i1.1633).
40. Qureshy FA, Qureshy AU, Levintov N, **Valiathan M**, Hans M, ElShebiny T, Qureshy HA, Baur D. Orthognathic Surgical Rehabilitation in a Patient with Nemaline Rod Myopathy: A Case Report. *In press.* *JS: Current Trends & Innovations.* HSCTI-20-S2-003. [10.24966/SCTI-7284/S2003](https://doi.org/10.24966/SCTI-7284/S2003)
41. **Valiathan M**, Metzger T, El. H, Hans MG and Palomo JM. Evaluation of Airway Volume Changes in Patients Treated with Distraction Osteogenesis. *Journal of Dentofacial Anomalies and Orthodontics* 2010 (13): 223-234.
42. **Valiathan, M** and Hans MG. Treatment of OSAS with Oral Appliances. *Rev Orthop Dentofaciale.* 2009; 43:279-299.
43. **Valiathan, M**, Phoenix AA, Palomo JM, Hans MG, Talmant J. Cautionary notes on the undesirable secondary effects of long term orthopedic and ventilation mask therapy in the treatment of OSAS. *Journal of Dentofacial Anomalies and Orthodontics.* 2009 (12), 92-107.

44. **Valiathan M.** Building blocks in the management of adult patients. Annual orthodontic residents meeting sponsored by the Indian Orthodontic Society. Supplement of the Indian Orthodontic Society Journal, 2003.
45. **Valiathan M,** Valiathan A. Craniofacial differences among North and South Indians employing the Jarabak Analysis. J Indian Orthod Soc. 2001; 34: 66-76.
46. Valiathan A, **Valiathan M,** Mathew R. Comparison of Chitra and Dentaurem Bands in Fifteen Completed Cases. J Indian Orthod Soc. 2001 (34): 2-8.
47. **Valiathan M,** Valiathan A, M. Suresh. A comparison of cephalometric norms of North and South Indians using the Powell and Holdaway analyses. J Indian Orthod Soc. 1999 (4): 122-126.

Book Chapters and other publications

Valiathan M, Bous R, ElShebiny T, Apostolopoulos K. Chapter title: Growth and Development of the craniofacial skeleton in patients with clefts. Cleft and Craniofacial Orthodontics. Ed. P Shety and T Gibson. Wiley-Blackwell Publishers. Submitted 12/2020.

Palomo JM, **Valiathan M** and Hans MG. Chapter title: 3D Orthodontic Diagnosis and Treatment Planning. Ed. S Kapila. Wiley Blackwell. ISBN978-1-118-44848-9.

Valiathan M, Hans MG. Chapter title: Retention, relapse and recurrence of malocclusion. Essentials for Orthodontic Practice. Ed. M Riolo and J Avery. ISBN 0-9720546-0-X.

Valiathan M, Tiwari HK, Elston RC, Hans MG. Genetic Epidemiology; Dental Phenotypes in Focus. Craniofacial Growth Series. Vol.39; Ed. JA McNamara Jr and K Kelly. 2002, Pg. 237-255.

Enlow H, Hans MG, **Valiathan M.** Chapter title: An introduction to the human craniofacial growth and development. Ed. D. Gill and F. Naini. Wiley-Blackwell Publishers.

Funded Grants

Current

R01DE024732 Sherwood/Oh (Multiple PI) 04/01/2015 – 03/31/2022 NIH/NIDCR

15% effort, Role: Co-Investigator.

No cost extension received till 2022 owing to COVID-19 at 20% effort. \$3,382,553.

Title of grant and scope: Craniofacial Growth Prediction in Different Facial Types

This proposal received a second percentile score in the fall of 2014. Scope of Project: We were to identify landmarks on over 25,000 lateral cephalograms from 5,247 individuals (3,340 with serial data) age 0-27 years from the nine growth studies comprising the American Association of Orthodontists Foundation Legacy Collection. Through the analysis of these data, the proposed research will 1) estimate population- and individual-level timing of pubertal growth and adult size

for multiple craniofacial traits, 2) provide diagnostic reference charts for craniofacial lengths, angles, and ratios given sex, age, facial type, and cervical vertebral maturity, 3) develop prognostic tools to predict remaining growth/change and the timing of the pubertal growth spurt for craniofacial traits, 4) make these valuable resources available to clinicians and researchers via an easy-to-use free web-based application, and 5) apply geometric morphometric techniques to extend current clinical views of quantifying craniofacial growth. The overall impact of the proposed research will be a shift in the clinical management of pediatric craniofacial patients toward more evidence-based treatment planning, utilizing references and predictions based on data from the largest North American cephalometric collections.

R01 DE024732-S1 National Institute of Dental and Craniofacial Research (NIH). R.J. Sherwood (Co-PI), H.S. Oh (Co-PI), E. Leary, K.P. McNulty, **M. Valiathan** (co-I)
Administrative Supplement: Craniofacial Growth Prediction in Different Facial Types: Bayesian and Machine Learning Models. \$116,169. 2019-22.

Craniofacial Fellow Naming Grant by the Mt. Sinai Foundation. One fellow per year to be named the Mt. Sinai - Dr. Edward Reiter Fellow. **Valiathan M (PI)**. \$150,000. 2018-2021.

F32 DE029104 National Institute of Dental and Craniofacial Research. National Institutes of Health. A.M. Hardin (PI), R.J. Sherwood, J.L. Cook (Co-Sponsors), **Valiathan M** (Collaborator; Mentor to A.M Hardin). *Ontogenetic integration in individuals with craniofacial anomalies*. \$198,744. 2019-2022

Previous funded Grants

R01 DE024732-S1 National Institute of Dental and Craniofacial Research (NIH). R.J. Sherwood (Co-PI), H.S. Oh (Co-PI), E. Leary, K.P. McNulty, **M. Valiathan** (co-I) Research Supplement to Promote Diversity: Craniofacial Growth Prediction in Different Facial Types. 2017. \$311,426

Craniofacial center support grant. JS Goldberg (PI) and **Valiathan M**. Mount Sinai Foundation. 2012, Funded (\$ 100,000)

Familial Trends of Congenital Hypodontia. **Valiathan M (P.I)**, Faculty Development Award from the School of Dentistry, Ohio Board of Regents and CWRU Provost office. March 2003. Funded. (\$ 6000)

A Genetic Epidemiology approach to Congenital Hypodontia. **Valiathan M (P.I)**, Elston RC, Hans MG. American Association of Orthodontists Foundation, 2002- 2003 Funded (\$15,000)

Genetic Determinants of Craniofacial Form. **Valiathan M (P.I)**, M.L Warman, M.G. Hans. American Association of Orthodontists Foundation, 2000- 2001. Funded (\$15,000)

Published Abstracts (posters and presentations)

1. DeLeonibus G, ElShebiny T, Apostolopoulos K, **Valiathan M**. Quantitative Analysis of Cortical Bone in Unilateral Cleft Patients. IADR 2021.

2. Shahrour R, ElShebiny T, Apostolopoulos K, **Valiathan M.** Airway Volume and Maximum Constriction Area Location in Cleft Population. IADR 2021.
3. Shahrour R, T. ElShebiny, Apostolopoulos K, **Valiathan M.** Comparing Different Software Programs for Bolton Analysis.
4. ElNaghy R, Kumar A, **Valiathan M.** A Comprehensive Schemed Management of a Patient with CHARGE Syndrome. American Association of Orthodontists Annual Session, Boston, MA. June 25-27, 2021.
5. ElNaghy R, Kumar A, **Valiathan M.** Comprehensive Schemed Management Of A Patient With CHARGE Syndrome. 66th Plastic Surgery Research Council meeting, May 20-23rd, 2021. Virtual meeting.
6. ElNaghy R, Bous R, Lyamichev A, Kumar A, **M. Valiathan.** Evaluation Of Palatal Bone Thickness In Individuals With Cleidocranial Dysplasia Compared To A Control Group: A Cone-beam Computed Tomography Study. 66th Plastic Surgery Research Council meeting, May 20-23rd, 2021.
7. Lyamichev A, Bous R & ElNaghy R, **Valiathan M.** Comparison of Palatal Bone Thickness Between Patients with Cleidocranial Dysplasia and Unaffected Controls: A Cone-Beam Computed Tomography Study. American Cleft Palate-Craniofacial Association (ACPA) Annual Meeting. 2021. Virtual meeting.
8. ElNaghy R, Bous R, Kumar A, **Valiathan M.** Spontaneous Dentoalveolar Changes Following Unilateral Vertical Mandibular Distraction Among Patients with Hemifacial Microsomia. October 2020. Conference: American Society of Plastic Surgeons (ASPS). Virtual meeting.
9. ElNaghy R, Bous R, Kumar A, **Valiathan, M.** Sequential Management of Cleidocranial Dysplasia and Three-plane Skeletal Discrepancy: A Journey from Adolescence to Adulthood. October 2020 Conference: American Society of Plastic Surgery (ASPS) Annual Meeting. Virtual meeting.
10. ElNaghy R, Apostolopoulos K, Bous R, **Valiathan M.** A Qualitative Assessment of Bone Mineral Density in Individuals with Hemifacial Microsomia: A CBCT Study. Plastic Surgery Research Council. 65th Annual Meeting of the Plastic Surgery Research Council. May 28-31, 2020, Toronto, Canada.
11. Apostolopoulos K, Bous R, ElNaghy R, **Valiathan M.** Correlation between Skeletal and Soft Tissue Asymmetry in Patients with Hemifacial Microsomia: A CBCT Pilot Study. Plastic Surgery Research Council. 65th Annual Meeting of the Plastic Surgery Research Council. May 28-31, 2020, Toronto, Canada.
12. Bous R, ElNaghy R, **Valiathan M.** A 3-Dimensional Heat-mapping Evaluation of Soft Tissue Changes Following Unilateral Vertical Mandibular Distraction Osteogenesis among

Patients with Hemifacial Microsomia. Plastic Surgery Research Council. 65th Annual Meeting of the Plastic Surgery Research Council. May 28-31, 2020, Toronto, Canada.

13. ElNaghy R, Bous R, **Valiathan M**. A Qualitative Assessment of Bone Mineral Density in Individuals with Hemifacial Microsomia; A CBCT Study. American Association of Orthodontists Annual Session, Atlanta, GA. May, 2020.
14. Kmentt A, Lyamichev A, Bous R, **Valiathan M**. Implicit Biases of Laypeople and Orthodontists towards Individuals with a Cleft Lip. American Association of Orthodontists Annual Session, Atlanta, GA. May, 2020.
15. Shah P M, Bous RM, ElNaghy RM, ElShebiny, TM, **Valiathan M**. Comparison of the Pharyngeal Airway Volume between Patients with Ectodermal Dysplasia and Unaffected Controls: A CBCT Study. American Association of Orthodontics (AAO). Annual Session, Atlanta, GA, May 2020; E-Poster
16. Bous R, Withana T, ElShebiny T, Ebeid SM, **Valiathan M**. Accuracy of Dolphin Three-Dimensional Software in Predicting Upper Airway Volumetric Changes after Orthognathic Surgery. Abstract # 1167. ACPA's 77th Annual Meeting, March 31 - April 4, 2020 in Portland, Oregon.
17. Apostolopolus K, ElNaghy R, Bous R, **Valiathan M**. Correlation between Skeletal and Soft Tissue Asymmetry in Patients with Hemifacial Microsomia: A CBCT Pilot Study. Abstract #: 1419. ACPA's 77th Annual Meeting, March 31 - April 4, 2020 in Portland, Oregon.
18. Shah P, ElNaghy R, Bous R, **Valiathan M**. Comparison of the Pharyngeal Airway Volume between Patients with Ectodermal Dysplasia and Unaffected Controls: A CBCT Study. Abstract# 1419. ACPA's 77th Annual Meeting, March 31 - April 4, 2020 in Portland, Oregon.
19. ElNaghy R, Bous R, Chinoy A, **Valiathan M**. A Qualitative Assessment of Bone Mineral Density in Individuals with Hemifacial Microsomia; A CBCT Study. Abstract # 1727. ACPA's 77th Annual Meeting, March 31 - April 4, 2020 in Portland, Oregon.
20. Bous R, Kochenour N, **Valiathan M**. A Novel Method for Fabricating Nasoalveolar Molding Appliances Using 3-Dimensional Workflow and Clear Aligners. Abstract # 1038. ACPA's 77th Annual Meeting, March 31 - April 4, 2020 in Portland, Oregon.
21. Shah P, ElNaghy R, Bous R, **Valiathan M**. 3-Dimensional Evaluation of Airway Volumes among Patients with Ectodermal Dysplasia. Abstract # 3307396. IADR/AADR/CADR General Session & Exhibition. March 19, 2020, Walter E. Washington Convention Center in Washington, D.C., USA.

22. Sherwood R, Evans C, **Valiathan M.** A Century of Craniofacial Growth Research. IADR/AADR/CADR General Session & Exhibition at the Walter E. Washington Convention Center. March 19, 2020, Washington, D.C., USA.
23. ElShebiny T, Bous R, Ebeid SM, **Valiathan M.** Accuracy of Three-Dimensional Upper Airway Prediction in Orthognathic Cases Using Dolphin Three-Dimensional Software, 36th Annual Meeting Northeastern Society of Plastic Surgeons, October 4-6 at the Fairmont Hotel in Pittsburgh, Pennsylvania.
24. Zaverdinos M, Narendran S, ElShebiny T, **Valiathan M.** Prevalence of Bruxism and Mouth Breathing in Craniofacial Patients. Abstract #1125, ACPA Annual Session, Tucson, AZ, 2019.
25. Powers K, Kumar A, Palomo JM, Vaughan L, **Valiathan M.** Facial asymmetries and occlusal canting in adolescent unilateral cleft lip and palate (UCLP) and control patients using three-dimensional (3D) cone-beam computed tomography (CBCT) images and an established orientation system. Abstract # 899, ACPA Annual Session, Tucson AZ, 2019.
26. Bous R, Palomo JM, Hazen R, Bous I, Kumar A, **Valiathan M.** Psycho-social Adjustments among Adolescents with Craniofacial Conditions and the Influence of Social Factors: A Multi-Informant Study. Abstract #866, ACPA Annual Session, Tucson AZ, 2019.
27. Orabi N, Quereshy F, Ebeid SM and **Valiathan M.** Auto transplantation in the Management of Tooth Agenesis in Cleft Lip and Palate Patients. Abstract # 1113, ACPA Annual Session, Tucson AZ, 2019.
28. Sun J, ElShebiny T, Kochenour N, Hans MG and **Valiathan M.** Management of Pfeiffer Syndrome: A case report. Annual Professionals Day, SoDM, CWRU, March 26th, 2019.
29. Bous R, Palomo JM, Hazen R, Bous I, Kumar A and **Valiathan M.** The Influence of Social Factors on the Psycho-social Well-being of Adolescents with Craniofacial Conditions: A Multi-Informant Study. May 5th, 2019, Annual session of the AAO, Los Angeles, CA.
30. Janes, L.E., Bazina, M., Ebeid SM., Ukaigwe, A., **Valiathan, M.**, Jacobson, R., & Gosain, A. (2019). Abstract 81: Dental Agenesis and Maxillary Growth Restriction in Cleft Lip and Palate Patients. Plastic and Reconstructive Surgery Global Open, 7.
31. ElShebiny T, Ebeid SM, Abdulaziz M, Quereshy F, **Valiathan M.** Accuracy of 3-Dimensional Soft Tissue Prediction in Nonsyndromic Orthognathic Cases Using Dolphin 3D software. Abstract #38, Annual American Cleft Palate-Craniofacial Association (ACPA) 75th Annual Meeting. Pittsburg, April 11th, 2018.

32. Petts R, Dimassa A, ElShebiny T, Biggs P, Kochenour N, **Valiathan M**. Craniofacial Orthodontic Experience in Practicing Orthodontists. Abstract # 126, Annual American Cleft Palate-Craniofacial Association (ACPA) 75th Annual Meeting. Pittsburg, April 12th, 2018.
33. Canepa I, ElShebiny T, **Valiathan M**. Obstructive Sleep Apnea Prevalence in the Craniofacial Population. Abstract # 272, Annual American Cleft Palate-Craniofacial Association (ACPA) 75th Annual Meeting. Pittsburg, April 12th, 2018.
34. DiMassa A, ElShebiny T, Bigg P, Petts R, Morcos S, Bazina M, Elilwi M, **Valiathan M**. The Craniofacial Orthodontic Experience of Orthodontic Residents. Annual American Cleft Palate-Craniofacial Association (ACPA) 75th Annual Meeting. Pittsburg, April 12th, 2018.
35. Paul B, **Valiathan M**, Neate R, ElShebiny T. Transition of Craniofacial Anomaly Care from Childhood to Adulthood. The Craniofacial Orthodontic Experience of Orthodontic Residents. Annual American Cleft Palate-Craniofacial Association (ACPA) 75th Annual Meeting. Pittsburg, April 12th, 2018.
36. Sherwood R, **Valiathan M**, McNulty K, Oh HS. Craniofacial Growth Prediction is influenced by Skeletal Maturity Status. Abstract Control ID#: 2855101, Annual IADR meeting in Greater Fort Lauderdale/Broward County Convention Center, Ft. Lauderdale, Florida, USA. March 22, 2018.
37. Oh HS, Knigge RP, Hardin AM, Sherwood RJ, Duren DL, Leary E, McNulty KP. Predicting facial type from mandibular landmark data at young ages. Presented at the Consortium for Orthodontic Advances in Science and Technology 2018 Innovators' Workshop on Personalized and Precision Orthodontics. September 12-16, 2018, Scottsdale, AZ.
38. Knigge RP, Leary EV, McNulty KP, Duren DL, Oh HS, **Valiathan M**, Sherwood RJ. Predicting craniofacial growth: A geometric approach. Presented at the Annual Meetings of the International Association of Dental Research. July 24-29, 2018, London, England, UK. J.Dent.Res. 97B: Abstract 1226.
39. Sherwood RJ, McNulty KP, Duren DL, Boeyer ME, **Valiathan M**, Oh H, Leary EV. Craniofacial growth prediction is influenced by skeletal maturity status. Presented at the Annual Meetings of the American Association of Dental Research. March 21-24, 2018, Ft. Lauderdale, FL, USA. J Dent Res 97A:530.
40. Thai L, Ali Z S, Palomo JM, Pinto A, **Valiathan M**. Retrospective Chart Review of the Pneumatization of Crista Galli in Dental Patients. ODA Annual Meeting, Columbus OH, 2017. **Best Student presentation in the Pre-doctoral category.**
41. Kochenour N, Shahin S, Bazina M, Lakin G, **Valiathan M**. The Removable Premaxilla Repositioning Appliance for Treatment of Bilateral Cleft Lip and Palate. Abstract #: 1330, Presented at the American Cleft Palate-Craniofacial Association (ACPA) 74th Annual Meeting. Denver, March 16, 2017.

42. Bigg PW, Gollamudi D, Kochenour N, **Valiathan M**. Estimating the Burden of Orthodontic Care in Patients with a Cleft Lip and/or Palate. Abstract # 1335, Presented at the American Cleft Palate-Craniofacial Association (ACPA) 74th Annual Meeting. Denver, March 15, 2017.
43. Bazina M, Cevidanes L, Ruellas A, **Valiathan M**, Quereshy F, Syed A, Wu R, Palomo M. Evaluation of New 3D Superimposition Software. Poster presentation during the 2016 Professionals Day and Research ShowCase at CWRU.
44. Bazina M, Cevidanes L, Ruellas A, **Valiathan M**, Quereshy F, Syed A, Wu R, Palomo M. Precision and Reliability of Dolphin 3D Voxel Based Superimposition. Oral presentation during 2016 AAO meeting, San Diego.
45. Sherwood, RJ, Baumrind S, Hans MG, McNamara JA Jr., McNulty KP, **Valiathan M**, Oh H. Craniofacial growth prediction. (Presented at the Annual Meetings of the Society of Craniofacial Genetics and Developmental Biology, Oct. 5-6, 2015, Baltimore, MD). Available from <http://www.craniofacialgenetics.org>.
46. Xu M, Hans MG, Beeson D, and **Valiathan M**. Case complexity and outcomes evaluated using ICON, DI and ABOGS. Abstract # 1489, AADR General Session, Washington DC. March 3-6, 2010
47. Austin L, **Valiathan M**, Narendran S, Hans MG. Abstract # 1491. A Study of Retention Preferences of General Dentists. AADR General Session, Washington DC. March 3-6, 2010
48. Kacer K, **Valiathan M**, Hans MG, Sena N. Self-reported retainer wear and compliance following active orthodontic treatment. Abstract #914, AADR General Session, Miami FL, April 1-4, 2009.
49. Amir A, Demko C, Hans MG, **Valiathan M**. Determining Orthodontic Trends over Four Decades Using the PAR Index. Abstract # 935; AADR General Session, Miami FL, April 1-4, 2009.
50. Hall M, Demko C, Hans MG, **Valiathan, M**. Forty years of orthodontic case complexity and outcomes using ICON. Abstract # 935. AADR General Session, Miami FL, April 1-4, 2009.
51. Patel P, Demko C, Hans MG, **Valiathan M**. Orthodontic Trend Assessment of four decades using DI and ABOGS. Abstract # 933. AADR General Session, Miami FL, April 1-4, 2009.
52. Hughes E, **Valiathan M**, Hans MG, Nelson S. Most Common Orthodontic Retention Practices in the US; A Survey based study. Abstract # 966. AADR General Session, Dallas TX, April 1- 5, 2008.

53. D'Agostini J and **Valiathan M.** Assessing Post-Orthodontic Change Using Two Occlusal Indices. Abstract # 0508. AADR General Session, Dallas TX, April 1- 5, 2008.
54. Johnson J, **Valiathan M,** Nelson S, Hans MG. Agreement levels for Orthodontic debond between Students, Dentists and Orthodontists. Abstract # 1912. IADR-AADR General Session, March 21st-24th, 2007.
55. Lyotard N, **Valiathan M,** Nelson S, Hans MG. Tooth movement following orthodontic treatment; a short-term study without retainers. Abstract # 1367. IADR-AADR General Session, March 21st-24th, 2007.
56. Razavi M, **Valiathan M,** Hans MG and Goddard K. Missing teeth and tooth sizes. Abstract #3700. IADR Scientific Program, Pg. 196, 2005.
57. Spoonhower C, **Valiathan M,** Hans MG, Goddard K. Familial aggregation of Congenital hypodontia. Abstract #2815. IADR/AADR, General Session, March 10-13, 2004. Hawaii.
58. Ahmed F, **Valiathan M.**_Trends among orthodontists in Orthognathic Surgery Abstract #1505, IADR/AADR, General Session, March 10-13, 2004. Hawaii.
59. Kwong J, **Valiathan M,** Tiwari HK, Elston RC, Hans MG. Patterns in congenital hypodontia. Abstract # 257. Research ShowCase. Case Western Reserve University, April 04, 2003.
60. Manji Z, Nelson S, Hans MG, **Valiathan M.** Abstract # 0787. Congenital hypodontia and tooth sizes. IADR/AADR General Session, March 12-15, 2003. San Antonio, TX
61. Moullas A, Hans M, Palomo M, **Valiathan M,** Subramanyan K, Strohl K and Thomas A. Craniofacial Shape variation among four laboratory rat strains. Abstract # 0914. Journal of Dent Res: (81) pg. A-135, 2002.
62. Kwong J, **Valiathan M,** Tiwari HK, Elston RC, Hans MG. Patterns in congenital hypodontia. Abstract #1659. Journal of Dent Res: (81) pg. A-220, 2002.
63. Moullas A, **Valiathan M,** Tiwari HK, Elston RC. The etiology of palatally displaced canines; the evidence examined. Abstract # 1663. Journal of Dent Res: (81) pg. A-220, 2002.
64. Gass J, **Valiathan M,** Tiwari HK, Hans MG. The Heritability of Maxillary Midline Diastemas. Abstract # 435. Journal of Dent Res: (80), pg. 90, 2001.
65. Hans MG, Redline S, Elston R, Nelson K, Russo L, Taylor J and **Valiathan M.** Heritability of Head and Facial Form in Caucasian Families. Abstract # 434. Journal of Dent Res: (80), pg. 90, 2001.

66. **Valiathan, M**, Hans, MG. Nelson, S., Powers, M., and Palomo, JM. Comparing Operator and Computer Generated Cephalometric Based Orthodontic Problem Lists. Abstract #1514. Journal of Dent Res: (79), pg. 333, 2000.
67. Peterson SJ, Palomo, JM and **Valiathan. M**. A 3d Study of Sexual Dimorphism in the Bolton Standards. Abstract # 2839. Journal of Dent Res: (79), pg. 498, 2000.
68. Dean, D., Broadbent, BH. Jr., **Valiathan, M**, Hans, MG. Luce, E., and Goldberg, J. 3d Soft Tissue Face Bolton Standards. Abstract # S10-056. International Congress on Computer Integrated Surgery in the Areas of Head and Spine. Austria, September 1997.
69. **Valiathan, M**, Valiathan, A., and Cariappa, KM. Impactions in Orthodontics. 29th Indian Orthodontic Conference. Kodaikanal, S. India. November 1994

Invited International Papers and Presentations

Strategic Steps for Grant Submission at the Consortium of Oral Health Related Informatics. February 27th, 2020. Vancouver, BC. Canada.

Airway considerations for the craniofacial practitioner. Golden Jubilee Celebration of the College of Dental Surgery, March 26th, 2016. Manipal, India.

Stability in orthodontics and newer technologies. Hope for the future? 17th Annual Indian Orthodontic Society Meeting. February 6th, 2013.

The orthodontist, airway and craniofacial anomalies. Asia Pacific Orthodontic Society Conference. New Delhi, India. November 26th, 2012.

Orthodontics for adults. Annual Graduate Students Conference, Indian Orthodontic Society, Kullu Manali, India. March 27th, 2011.

Orthodontics and Orthognathic surgery. 2 day course conducted in collaboration with University Hospitals Birmingham NHS Trust, Queen Elizabeth Hospital, Edgbaston U.K. Conducted at the Institute of Dental Sciences and Technology, Modinagar, India. March 11-13th, 2010.

“What drives your retention choices; evidence says little”. Presented at the Annual Indian Orthodontic Society meeting, New Delhi, Nov 7th, 2009.

“The perfect union in an imperfect situation: orthodontists on a craniofacial team”. Presented at Manipal University, India. November 4th, 2009.

Surgery and Orthodontics. Given to the Graduate Students of the College of Dental Surgery. Manipal and Mangalore. India. February 23rd, 2007.

An orthodontist’s role on a dental team. Egyptian Clinical Dental Society, 12th International Conference, Cairo, Egypt. March 17, 2006.

The adult dentition and orthodontic choices. New Delhi Orthodontic Study Club. New Delhi, India, March 29th, 2005.

The challenge of predicting treatment outcome in orthodontics. Keynote address at the 8th Annual Graduate student's convention, Indian Orthodontic Society. Mangalore, January 09, 2004

Orthodontic management of the cleft lip and palate patient. Presented at the A.B. Shetty Memorial College of Dental Sciences, Mangalore, India. February 17, 2003.

Genetic epidemiology findings on craniofacial form and congenital hypodontia. Presented at the College Of Dentistry, Manipal, India. February 03, 2003.

Investigations in the Familial Aggregation of Dental and Craniofacial Phenotypes. Scientific Poster Presentation. 101st AAO Annual session. Toronto, Canada. May 7, 2001.

Complete Rehabilitation of the Cleft Lip and Palate Child. Presented at the College of Dental Surgery, Manipal, India. December 27, 2000.

Adult Orthodontics and Orthognathic Surgery. Presented at the College of Dental Surgery, Manipal, India. December 27, 2000.

Invited National, regional or local Presentations and contributions:

New Dentists Study Club of the GCDS; Pediatric Dentistry and Orthodontics, the odd couple or perfect match? **M Valiathan** and D Gindi. September 10th, 2020.

A century of Craniofacial Growth. IADR, 2020. CE course by R Sherwood, C Evans and **M Valiathan**.

Alumni reception representative on behalf of the SoDM; Yankee Dental Congress, January 31st, 2020. Boston.

UTech Strategy Committee: School of Dental Medicine initiatives and partnership with UTech. November 4th, 2019.

Chair: Dental and Orthodontics Session at the ACPA 76th Annual Meeting, April 12th, 2019

Chair: Orthodontics and Prosthodontics Discipline Forum at ACPA's 76th Annual Meeting, April 11, 2019.

Co-Chair: Orthodontics and Prosthodontics Discipline Forum at ACPA's 75th Annual Meeting, Pittsburg 2018.

Orthodontic considerations in adult Orthodontics. North Coast Dental Society Meeting. Cleveland, 04, May, 2016.

Pediatric Dentistry and Orthodontics, where are the intersections? Heights Study Club, April 21st, 2016.

Operation Smile Cleft Palate Panel. Case Western Reserve University, Twing Center. April 24th, 2014.

Introduction to Craniofacial Orthodontics. Mastership Program for delegates from China. Case Western Reserve University. June 11th, 2014

Operation Smile Cleft Palate Panel. Case Western Reserve University, Hovorka Atrium. March 22nd, 2013.

Craniofacial and Surgical Orthodontics. . Mastership Program for delegates from China. Case Western Reserve University. June 9th, 2013

Airway considerations, craniofacial form and oral appliances. Sleep Medicine Grand Rounds in the Division of Pulmonary/Critical Care and Sleep Medicine at University Hospitals Case Medical Center. April 17th, 2012.

Can newer technologies shed light on stability? Presented at the Annual American Association of Orthodontists Meeting, Chicago, May 17th, 2011.

The management of the maxilla from birth to maturity in a cleft affected child. Presented in the Department of Plastic Surgery, School of Medicine. Case Western Reserve University. October 11, 2010.

What's new in dentistry? Management of white spot lesions. Jin-Ho Phark and Manish Valiathan. October 6th, 2010. SODM, Case Western Reserve University.

Who wants what and why? Presented at the Annual American Association of Orthodontists Meeting, Boston, May 4th, 2009.

Retention: Missing evidence in an evidence based era. Presented at the University of Birmingham in Alabama. April 9th, 2009.

Clearing the air; early interventions in orthodontics. Presented at the Summit Dental Specialists Study Club. September 22nd, 2008.

Retention Practices in an evidence based era. Presented at the Annual American Association of Orthodontists Meeting, Denver, May 2008.

Assessing outcomes. Presented at the Summit Dental Specialists Study Club. October 19th, 2007.

Advances in imaging modalities. Highland Dental Society Study Club. March 15th 2007.

Newer technologies in Dentistry. South West Study Club of Greater Cleveland, November 16th 2006.

Surgery and orthodontics; Shared objectives, aims and hope. American Association of Orthodontists, Annual Session. Las Vegas, May 06, 2006.

About teeth and faces. Day long CE course given to the Lorain County Dental Society, OH. April 21, 2004.

Genetic epidemiology findings on craniofacial form and congenital hypodontia. Presented at the NIDCR, Division of Functional Genomics, Bethesda MD. June 28, 2002.

The challenge of maxillary growth in the Cleft Lip and Palate child. Presented at the Department of Plastic Surgery, University Hospitals of Cleveland. October 13, 2001.

Maxillary Growth Restriction in the Cleft Lip and Palate Child. Edward Reiter Symposium held in conjunction with the Annual North Coast Dental Society Meeting. Cleveland, OH. May 4, 2001.

Heritability Estimates of Maxillary Midline Diastema. Moyer's Pre Symposium, University of Michigan, Ann Arbor. February 23, 2001.

Is it all in the Family? The Genetic basis of Malocclusion. Presented at the Annual Great Lakes Orthodontic Association. October 29, 2000. Cleveland -OH.

Orthodontics and Medical Genetics. Presented at the Center for Human Genetics, School of Medicine, C.W.R.U. May 26, 2000.

The Maxilla in Space and Time. Edward Reiter Cleft Palate Symposium in conjunction with the Craniofacial Center of the Rainbow Babies and Children's Hospital, Cleveland, OH.
Venue: Integrated Medical Campus, Beachwood, OH. May 6, 2000.

Familial Aggregation of Dental Phenotypes. Valiathan, M, Hans M.G. American Association of Orthodontists 100th Annual Session, Chicago, Illinois. May 2000. Scientific Poster Presentation.

Comparing Two Cephalometric Based Outcome Rankings for Orthognathic Surgery. Mohammad, R, Valiathan, M, American Association of Orthodontists 100th Annual Session, Chicago, Illinois. May 2000. Oral Research Presentation.

Periodontal Considerations in Orthodontic Treatment of the Mixed Dentition. American Association of Orthodontists 100th Annual Session, Chicago, Illinois. May 2000. Roundtable Discussion

Assessment of orthodontic treatment outcome using the PAR index. R. L. Feghali, M. Valiathan, M.G. Hans, J. Eckhardt, W. Nguyen. American Association of Orthodontists 98th Annual Session, Dallas, Texas. May 1998. Table clinic.

American Board of Orthodontics case display. M. Valiathan, R. L. Feghali, S. Park, J. Eckhardt, W. Nguyen. American Association of Orthodontists 98th Annual session, Dallas, Texas. May 1998. Table clinic.

Additional Research Experience:

Molecular genetic laboratory procedures and their clinical applications Jan-May, 2000
(Dr. Matthew Warman's Laboratory, CWRU).

Coordinator of a project to determine the 3D cephalometric averages of the 1996- 1997
Bolton Standards. Case Western Reserve University. Cleveland, OH.
Supported by a grant from the Leibinger LTD (a subsidiary of *Pfizer*).

Co-investigator in multicentric clinical trials of stainless steel band material. 1994-1996
A research project of the Indian Council of Medical Research.
Project No. 5/4/2-1/ TF / 91 / NCD II.

Graduate Students Supervised:

Thesis Advisor: Racial disparities in healthcare access among patients with orofacial clefts:
examining treatment timing. Danielle Miller. 2021

Thesis Advisor: Analyzing patient retention compliance:
Invisalign vs. Fixed Appliances, a Questionnaire-Based Study. Zachary Lawrence. 2020

Thesis committee member: Comparison of 2D and 3Dimensional superimpositions.
Pramod Philip. 2018

Thesis Advisor: Changes in Occlusal Cant in Unilateral Cleft Palate Patients
After Alveolar Bone Graft Surgery. Katherine Powers 2018

Thesis Advisor: Assessing Social-emotional issues in children with
Craniofacial anomalies. Rany Bous. 2018

Thesis Advisor: Evaluation of Tongue Position during Speech Production in
Various Anatomic Forms of Hard Palate. Jarintorn Kotheeranurak. 2017

Thesis Advisor: The Relationship between the Cranial Base to Dental Compensation
in the Transverse Dimension. Amir Aminoshariae. 2016

Thesis Advisor: Agreement of orthodontic diagnosis and
treatment planning with and without plaster study models. Nicholas Kochenour. 2015

Thesis Committee member.
Accuracy and reliability of Dolphin 3D voxel-based superimposition. Mohamed Bazina 2015

<u>Thesis Advisor:</u> Evaluating stability using CBCT. Lucas McGuire.	2014
<u>Thesis Advisor:</u> Maxillary superimpositions in 3D. Andrea Font.	2013
<u>Thesis Advisor:</u> Comparing changes in canine and molar inclinations in cases treated with FORSUS versus Class II elastics. Lyndsey McCaskey.	2012
<u>Thesis Advisor:</u> Assessing post treatment bone levels in the lower anterior region. Jesse Carmen	2011
<u>Thesis Advisor:</u> A comparison of crown and root position` before and after orthodontic treatment. Lindsey Schilling.	2010
Thesis committee member . Pretreatment Buccal Inclination of maxillary first molars and canines Eleftheria Karamitsou DDS.	2010
<u>Thesis Advisor:</u> Dentist preferences on retention practices. Lisa Austin, DDS.	2009
<u>Thesis Advisor:</u> Evaluating patient compliance during retention. Kurt Kacer, DDS.	2008
<u>Thesis Advisor:</u> Identifying most common practices for retention in the US. Eric Hughes DDS	2007
<u>Thesis Advisor:</u> Retention devices and retention: Alike Crew DDS,	2006
<u>Thesis Advisor.</u> Evaluation of short term stability without retainers. Nadia Lyotard, D.D.S.	2005
Thesis committee member. Comparisons of surgical procedures in the Rehabilitation of Cleft Lip and Palate Children. Michael Paulus D.D.S	2005
<u>Thesis Advisor.</u> Missing teeth and tooth size discrepancies in affected families. Mohammad Razavi, D.D.S	2004
<u>Thesis Advisor.</u> Familial aggregation of patterns in congenital hypodontia. Christopher Spoonhower, D.D.S	2003
Thesis committee member. Craniofacial shape variation among laboratory mice strains. David M Lenhart, D.D.S	2002
Thesis committee member. Craniofacial shape variation among four laboratory rat strains. Alexandros Moullas, D.D.S.	2001

<u>Thesis Advisor.</u> Familial occurrence of midline diastemas. Jeddiah Gass, D.D.S.	2000
Pre-doctoral Students Supervised:	
Abigail Weagraff D2 - Evaluating the relationship of the cranial base in respect to the length of maxilla and mandible among patients with Craniosynostosis	2021
Gina Deleionibus D2 Quantitative Investigation of Cortical Bone Thickness and Depth for Mini-Implant Placement in Cleft Patients.	2021
Rama Shahrour D3 - Airway Volume and Maximum Constriction Area Location in Cleft Population - Comparing Different Software Programs for Bolton Analysis	2020
Priya Shah. D3 Comparison of the Pharyngeal Airway Volume between Patients With Ectodermal Dysplasia and Unaffected Controls: A CBCT Study	2019
T Withana; D3 Accuracy of Dolphin Three-Dimensional Software in Predicting Upper Airway Volumetric Changes after Orthognathic Surgery	2019
Ashleigh Kmentt; D3 Implicit bias studies	2019
Anthony Lyamichev; D4 Implicit bias studies 2019	
Jiabao Sun; D4 Management of Pfeiffer syndrome.	2019
Prevalence of Bruxism and Mouth Breathing in the Craniofacial Population. Micaela Zaverdinos	2018
Study of Craniofacial Orthodontic Experience in Training Orthodontic Residents Alex DiMassa.	2017
Study of Craniofacial Orthodontic Experience among private practice orthodontists. Rebecca Petts.	2017
Identifying a link between Obstructive Sleep Apnea and Craniofacial disorders. Ian Caneppa	2017
Transition of Craniofacial Anomaly Care from Childhood to Adulthood. Paul Bigg	2017
Estimating the burden of Care in the management of cleft lip and palate cases. Paul Bigg.	2016
Changes in airway volume following distraction osteogenesis. Tasha Metzger	2010

Case complexity and outcomes evaluated using ICON, DI and ABOGS. Molie Xu 2009	
Evaluating orthodontic trends over four decades using the ICON index. Matt Hall	2008
Pre-treatment complexity and post treatment outcomes evaluated using the PAR index. Amir Aminoshariae	2008
DI and ABOGS in the evaluation of orthodontic treatment over four decades. Priyanka Patel	2007
Comparison of Indices. Justina D'Augostini.	2007
Decision making as it pertains to debonding orthodontic cases. A comparative study of dentists, orthodontists and dental students. Joel Johnson	2006
Perceptions in orthognathic surgery. Fatima Ahmed	2003
Congenital hypodontia and tooth size variations. Zain Manji.	2002
Patterns of congenital hypodontia. Jeff Kwong.	2001
Comparing two cephalometric based outcome rankings for orthognathic surgery. Mohammad Razavi.	1999

DDS Students Supervised Under SODM Mentorship Program

Jason Majors	Class of 2007
Peter Wu	Class of 2007
David Duke	Class of 2008
Lindsey Schilling	Class of 2008
Bren Dixon	Class of 2009
Laura Richards	Class of 2009
Corey Stafford	Class of 2010
Alex Mellion	Class of 2011
Michael Kroll	Class of 2011
Kevin Faist	Class of 2012
Kyle Krause	Class of 2013
Dug Soon Kim	Class of 2014
Karel Vandervelden	Class of 2014
Mathew Jurcak	Class of 2015
Maryana Horokhivska	Class of 2015
Kimchai Lam	Class of 2017
John Selph	Class of 2017
Zachary Lawrence	Class of 2018
Dahee Park	Class of 2018

Punyawat Laohakanjanasiri	Class of 2019
Rama Yako	Class of 2019
Jeong Min Kim	Class of 2020
Tasneem Zaben	Class of 2020
Wyatt Knechtel	Class of 2023
Junyi Wu	Class of 2023

College Students Supervised.

Afriti Chinoy; research on bone density.	2019
Amritha Minisandram, 4 weeks Exposure to clinical orthodontics and involvement with on-going research projects	2014
Jashleen Bedi. 8 weeks Exposure to clinical orthodontics and involvement with on-going research projects.	2002

High School Students Supervised

Alyzah Quereshy. Use of CBCT to evaluate alveolar bone defects in Cleft patients.	2014
Sara Darowich; TMJ morphology and facial form. Research project designed for 12 weeks. Presented at the Mentor High School Science fair	2012
Brandon Archibald. 4 weeks Exposure to clinical orthodontics and lab procedures.	2002

Teaching:

Professional Program leading to the DMD degree:

HEWB 349 Dentofacial Morphology 2002-present
Course Director- Responsibilities include providing all instructional content and administering and evaluating all outcome measures for this course.

Brief course description

This is second of four core courses in orthodontics required for completion of the DMD degree. It is taken by all dental students (N=70) in their second year of study and provides the dental student with a detailed assessment of dynamic, growing faces, the developing dentition in children and the changes that ensue over time. The course details the etiologies and characteristics of various malocclusions including developmental disharmonies. Emphasis is laid on empowering the student in the diagnoses of malocclusions employing study casts, intra

and extra-oral photographs, and radiographic assessments. The course utilizes case-based small group instruction as well as the lecture format. A total of 16 hours of student contact occur over an 8 week period.

Dend #482 Senior Orthodontics

2000-present

Supporting Faculty- Responsibilities include two one hour lectures on the orthodontic, interceptive, management of developing problems in children.

Brief course description

This is the last of the four core didactic courses in orthodontics required for completion of the DMD degree. It is taken by all dental students (N=70) in the final year of study and focuses on application of basic growth concepts, biological factors, and biomechanics that are involved in the clinical care of the child patient.

REHE 355 Esthetic Dentistry

2002-present

Supporting Faculty- Responsibilities include a one hour lecture to 70 students on combined orthodontic restorative care of patients.

Brief course description

This is an advanced course in restorative dentistry required for completion of the DMD degree. It is taken by all dental students (N=70) in the final year of study and focuses on interdisciplinary care of complex dental conditions to obtain the most optimal results.

Post Graduate Dental Education leading to specialty certification and/or MSD Degree

DENT #505 Dentofacial Anomalies

2009-present

Course Director: Responsible for coordinating all 16 hours of lecture and case based instruction and providing 6 hours of lectures.

Brief course description

This didactic course introduces and instructs residents in Orthodontics, Pediatric Dentistry, and Oral and Maxillofacial Surgery in the team approach for care of children and young adults with congenital and developmental craniofacial anomalies. This course includes 8 one hour lectures by each of the medical and dental specialties involved in the activities of the Craniofacial Anomalies Team in Rainbow Babies and Children's Hospital. In addition to the lectures and case presentations, approximately 8 hours per month is spent in clinical evaluation of patients with residents allowing for small group tutorial instruction.

DENT # 569 and 570 Orthodontic Literature Review I, II, III and IV. 2000-present
Course Director: This is a four semester course that focuses on reviewing the current and classic literature in orthodontics. The director leads an hour weekly discussion on refereed literature in the field. First and second year orthodontic residents (N=10) take this course. This course is required for specialty certification in orthodontics and the MSD degree.

Brief course description

The course focuses on contemporary and classic literature selected to cover a wide range of orthodontic topics. The selected literature includes, but is not limited to, the reading list suggested by the American Board of Orthodontists in preparation for the Part II of the ABO examination. Students will be required to critically evaluate and discuss the articles and topics.

DENT #580 Orthodontic/Orthognathic Surgery Seminars I, II and III 2001-present
Course Director: Coordinate and supervise weekly 1 hour seminars with residents in Oral and Maxillofacial Surgery (N=10) and Orthodontics (N=15)

Brief course description

The purpose of the orthodontic-orthognathic surgery seminars is to provide instruction in the diagnoses, treatment planning and treatment execution of patients with significant jaw disharmony that require surgical realignment of the jaws, in addition to orthodontic tooth movement, to achieve a desirable occlusion and facial appearance.

Subspecialty Clinic- Orthognathic surgery 2001-present
Course Director- Provide clinical guidance and supervision of 15 orthodontic residents on Wednesday afternoons from 1-5pm. Approximately 8 hours per month is spent in clinical evaluation of patients with residents allowing for small group tutorial instruction.

DENT #561 Orthodontics for Pediatric Dentists I, II 1999-2018
Course Director: Provide all instructional content and supervise clinical care of orthodontic patients. This course meets weekly from 8am to 12noon on Wednesday for a minimum of 32 weeks. Part I refers to the course content for the fall semester and Part II refers to the spring semester. All residents (N=8) in pediatric dentistry take this course as it is required for specialty certification in Pediatric Dentistry.

Brief course description

The course is designed to teach the pediatric dentistry residents (1) the clinical evaluation of patients to determine appropriateness of orthodontic intervention (2) record taking (3) diagnosis (4) treatment planning of cases in the mixed and permanent dentition (5) treatment administration and (6) retention strategies. The primary focus will be on interceptive orthodontics including growth modification and corrective orthodontics in the permanent dentition.

Lasers in orthodontics

2008-2013

**Course Director: Responsible for all 8 hours of didactic and 4 hours of clinical instruction.
Developed all course materials and clinical exercises.**

Brief course description

The course covers the didactic and clinical principles in the use of Lasers in Orthodontics for the orthodontic graduate students. This course is required for all orthodontic residents.

Last update 3/19/2021

GOVERNOR'S APPOINTMENTS TO BOARDS AND COMMISSIONS

Appointment Date: 6/4/2021

Name of Appointee: Manish Valiathan

Address: 2655 Butternut Lane
Pepper Pike, OH 44124
Cuyahoga County
(H) – 4406461854
(W) – 3304672763
(M) – 3303109318
(E) – manish.valiathan@case.edu

Name of Commission: Radiation Advisory Council

Michael Snee
Program Administrator
(614) 644-2732
35 E. Chestnut St. 7th Floor
Columbus, OH 44124
(614) 644-2727

Term Begins: 9/7/2020

Term Ends: 9/6/2025

Party Affiliation: Independent

Senate Confirmation: Appointed by the Governor, confirmed by the Senate

Financial Disclosure: Public disclosure required

Vice: Fady Faddoul

