

Divakar Karanth BDS, MDS, M. Orth RCS, MS.

Clinical Associate Professor, University of Florida College of Dentistry, Gainesville, FL.

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Education

Master of Sciences & Certificate in Orthodontics University of Kentucky College of Dentistry, Lexington, KY.	2017 – 2020
Advanced Continuing Education in Craniofacial Biology University of Kentucky College of Dentistry, Lexington, KY.	2016 - 2017
M. Orth R.C.S (Ed) Royal College of Surgeons, Edinburgh, United Kingdom.	1996
Master of Dental Surgery in Orthodontics SDM College of Dental Sciences and Hospital, Karnatak University, India.	1992 – 1995
Bachelor of Dental Surgery SDM College of Dental Sciences and Hospital, Karnatak University, India.	1987-1992

Work Experience

Clinical Associate Professor of Orthodontics University of Florida	Gainesville, FL Aug 2020 - Present
Teaching Assistant (Predoctoral Orthodontics, ORT822, ORT841, ORT850) University of Kentucky College of Dentistry	Lexington, KY Aug 2018 – May 2020
Consultant Orthodontist, Head of Dental Department Al-Esraa Medical Center, Doha Healthcare	Doha, Qatar June. 2014 - Sept. 2015
Specialist Orthodontist Al-Esraa Medical Center, Doha Healthcare	Doha, Qatar July. 2012 – June.2014
Associate Professor University of Benghazi	Benghazi, Libya Oct. 2009–Oct.2011
Professor & Department Chief M. Ms. N.G.H Institute of Dental Sciences and Research Center	Belgaum, India July. 2007–Oct.2009
Professor Bapuji Dental College & Hospital	Davangere, India Oct. 2004–Mar.2007
Associate Professor Bapuji Dental College & Hospital	Davangere, India Apr. 2000–Sept.2004
Lecturer School of Dentistry at the University of West Indies	Trinidad & Tobago Oct 1998 - Oct 1999
Assistant Professor College of Dental Surgery, Manipal Academy of Higher Education	Mangalore, India Oct. 1996–Oct. 1998
Clinical Attachment Royal Bournemouth Hospital	Dorset, United Kingdom Sept. 1996–Oct.1996
Assistant Professor SDM College of Dental Sciences and Hospital	Dharwad, India Apr. 1995 –Aug.1996

Orthodontic Private Practice Experience

Ten years of Orthodontic private practice experience (1999 to 2009) in my clinic "Smile 'N' Braces, Dental & Orthodontic Clinic" at Goa, India was professionally and financially fulfilling experience.

Three years as an orthodontic consultant (2012-2015) at Doha Healthcare, a multi-specialty hospital, Qatar, provided me with an opportunity to interact and treat the patients from 30 countries. I also played the role of Head of Dental Department, which enhanced my administrative skills.

Board certification

American Board of Orthodontics. Written Examination	April 2019
American Board of Orthodontics. Scenario-based Oral Clinical Examination	– Scheduled Feb 2021
National Board Dental Examination (NBDE) Part I	June 2016
National Board Dental Examination (NBDE) Part II	Sept 2019
ADEX Dental Examination - CDCA	June 2020

Honors & Awards

International Student Scholarship- 2019-2020 Academic Year. International Student and Scholar Services (ISSS) University of Kentucky.	2019-20
Charley Schultz Research Scholar Award - 3rd Place in Research Category Developing and evaluating piezoelectric scaffold for alveolar bone regeneration at AAO 2019, LA	2019
Best Research award Developing and evaluating the piezoelectric scaffold for alveolar bone regeneration. CCTS Spring Conference & UKCD Research day, University of Kentucky.	2019
3 Minute Thesis- Finalist University of Kentucky.	2018
Best Research Award Accelerated orthodontic tooth movement CCTS Spring Conference & UKCD Research day, University of Kentucky.	2018
Second Best Clinical Paper Award Iatrogenic Malocclusion, 43 rd Indian Orthodontic Conference at Mumbai.	2008
Second Best Scientific Paper Award Controlled Canine retraction in sectional arch technique, A comparison of T loop and PG retraction spring, 33 rd Indian Orthodontic Conference at Manipal.	1998
Second Best Scientific Paper Award Effectiveness of different intrusive arches-A comparative study, 32 nd Indian Orthodontic Conference at Goa.	1997
Second Best Clinical Paper Award Finishing with rectangular wires, 30 th Indian Orthodontic Conference.	1995

Grants

Electron Microscopy Pilot Projects grant. (PI) Kentucky Biomedical Research Infrastructure Network and IDeA Networks of Biomedical Research Excellence	2020
National Nanotechnology Coordinated Infrastructure (NNCI) (PI) Supported by The National Science Foundation (NSF).	2019
National Institute of Health, CCTS, Pilot Grant #3210001123 Co-Investigator Developing and evaluating piezoelectric scaffold for alveolar bone regeneration	2018
Southern Association of Orthodontists Graduate Research Award. (PI) Developing and evaluating piezoelectric scaffold for alveolar bone regeneration	2018

Presentations

3D Printed PLLA Scaffold for Bone Regeneration

Poster presentation

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

Annual International Conference on Craniofacial Research (Pre-symposium of the 47th Moyers Symposium)
University of Michigan, Feb 2020

3D printed biodegradable piezoelectric scaffold for bone regeneration.

E- Poster presentation

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

IADR/ AADR
Washington DC, March 2020

Developing and evaluating 3D printed biodegradable piezoelectric scaffold for bone regeneration.

E- Poster presentation: https://files.aievolution.com/prd/aao2001/abstracts/5364/1525_KARANTH.pdf

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

American Association of Orthodontists
Virtual meeting
May 2020

Resorbable scaffold for bone regeneration.

Poster presentation (Abstract – Accepted)

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

CCTS Spring Conference and UKCD Research Day
University of Kentucky, April 2020

Developing and evaluating the piezoelectric scaffold for alveolar bone regeneration.

Poster for Charley Schultz Research scholar award

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

American Association of Orthodontists
Annual meeting
Los Angeles, CA. 2019

The piezoelectric scaffold for alveolar bone regeneration.

Poster presentation

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

CCTS Spring Conference and UKCD Research Day
University of Kentucky, April 2019

Accelerated orthodontic tooth movement.

Poster presentation

D. Karanth, C. Loss, J. Jacob, L. Sharab

CCTS Spring Conference and UKCD Research Day
University of Kentucky, April 2018

Relationships between Moderate to Severe External Apical Root Resorption concurrent with Orthodontic Treatment and Patient-Reported Allergy and/or Asthma

Poster presentation

D. Karanth, L. A. Morford, J. Dempsey, M. Moremi, A. Abouelnour, G. Falcao-Alencar, G. T. Kluemper, J. V. Macri, J. K. Hartsfield, Jr.

CCTS Spring Conference and UKCD Research Day
University of Kentucky, April 2017

Skeletal Anchorage in a Rat Model of Orthodontic Tooth Movement.

S. Gudhimella, A. Ibrahim, A. Kluemper, D. Karanth, P. Westgate, S.S. Huja

Poster Presentation for Charley Schultz Research scholar award – 2nd Place

American Association of Orthodontists
Annual Session
San Diego, CA. May 2017

Rate of Tooth Movement in Rats Under Low Orthodontic Force

A. Kluemper, S. Gudhimella, A. Ibrahim, D. Karanth, S. Pandruvada, P. Westgate, D. Puleo, S.S. Huja

Poster presentation

CCTS Spring Conference and UKCD Research Day
University of Kentucky, April 2017

Skeletal Anchorage in a Rat Model of Orthodontic Tooth Movement

S. Gudhimella, A. Ibrahim, D. Karanth, S. Pandruvada, S.S. Huja

Poster presentation

IADR/AADR/CADR General Session
San Francisco, CA, 2017

Rate of Orthodontic Tooth Movement (OTM) in a Rodent Model Using Light Forces

A. Ibrahim, S. Gudhimella, D. Karanth, A. Kluemper, S. Pandruvada, P. Westgate, S.S. Huja

Poster presentation

IADR/AADR/CADR General Session
San Francisco, CA, 2017

Orthodontic Tooth Movement in Rats Using Low Force and Skeletal Anchorage

A. Kluemper, S. Gudhimella, A. Ibrahim, D. Karanth, S. Pandruvada, P. Westgate, D. Puleo, S.S. Huja

Poster presentation – 3rd Place – Research award

Hinman Student Research Symposium.
Memphis, TN. Nov. 2017

Skeletal Anchorage in a Rat Model of Orthodontic Tooth Movement.

S. Gudhimella, A. Ibrahim, A. Kluemper, D. Karanth, P. Westgate, S.S. Huja

Poster presentation – Best Research award

CCTS Spring Conference and UKCD Research Day
University of Kentucky, April 2017

Preventive and Interceptive orthodontic procedures – Role of a Dentist.

D. Karanth

Guest lecture

Scientific Day of Dental Faculty
Garyounis University, Benghazi Libya, April 2010

Iatrogenic Malocclusion.

D. Karanth

43rd Indian Orthodontic Conference
Mumbai, Nov. 2008

New concepts in biomechanics.

D Karanth, KS Shetty
Guest lecture

PG convention
Dharwad, India. Jan. 2005

Micro-implant Anchorage.

Karant H.S.D, Shetty KS
Guest Lecture

PG Convention
Mangalore, India. Jan. 2004

Clinical implications of the Segmental arch technique.

Karant H.S.D, Shetty KS
Guest Lecture

Orthodontic Alumni Meeting
Dharwad, India. Jan. 2003

Biomechanical and Clinical perspective of Segmental arch approach.

Karant H.S.D, Shetty KS
Keynote Presentation

38th Indian Orthodontic Conference
Coimbatore, India. Sept. 2003

Segmental mechanics: Research and Clinical Implications.

Karant H.S.D, Shetty KS
Keynote Presentation

37th Indian Orthodontic Conference
Lucknow, India. Sept. 2002

Indigenous superelastic nickel-titanium T Loop retraction springs –An investigation of force characteristics.

Karant H.S.D, Shetty KS

Asian Orthodontic Congress & 36th
Indian Orthodontic Conference
Cochin, India. Sept. 2001

Role of Bioelectricity in Orthodontic Tooth Movement.

Karant H.S.D, Shetty KS

13th Annual Conference of the
Indian Society for Dental Research
Manipal, India. Jan. 2001

Biochemical events associated with Connective Tissue Remodeling.

Karant H.S.D, Shetty KS

International Orthodontic Congress & 35th Indian
Orthodontic Conference
Jaipur, India. Nov. 2000

Controlled Canine retraction in sectional arch technique, A comparison of T loop and PG retraction spring

Karant HSD, Shetty VS

33rd Indian Orthodontic Conference
Manipal, India. Oct. 1998

Genetics and Malocclusion

Divakar HS, Shama P, Shetty VS

First Annual Conference of
Indian Academy of Orofacial Genetics
Manipal, India. April 1998

Effectiveness of different intrusive arches-A comparative study

Divakar HS, Shetty VS

32nd Indian Orthodontic Conference
Goa, India. Oct. 1997

Skeletal Class II correction with Twin Block

Divakar HS, Jayade VP

17th Annual Conference of Indian Society of
Pedodontics and Preventive Dentistry
Mangalore, India. Jan. 1996

Interpretation of hand and wrist radiographs in estimating skeletal maturational status

Divakar HS, Jayade VP

7th National Conference of Indian Academy of
Oral Medicine and Radiology
Dharwad, India. Dec. 1995

Finishing with rectangular wires

Divakar HS, Jayade VP

30th Indian Orthodontic Conference
Lonavala, India. Nov. 1995

Comparison of uprighting springs made from lighter Australian wires

Divakar HS, Jayade VP

28th Indian Orthodontic Conference
Hyderabad, India. Nov. 1993

Why visit a dentist: Reason for seeking dental care.

Divakar HS, Gopalakrishnan NS

21st Karnataka State and 2nd South Zone Conference
Bangalore, India. Nov. 1992

Perception of profile: Use of Jig-Saw

Divakar HS, Gopalakrishnan NS

46th Indian Dental Conference
Mangalore, India. Dec. 1991

Publications

- A rodent model using skeletal anchorage and low forces for orthodontic tooth movement.** Am J Orthod Dentofacial Orthod.
Gudhimella S, Ibrahim AY, [Karanth D](#), Kluemper AM, Westgate PM, Puleo DA, Huja SS [PMID: 30712697](#) 2019;155(2):254-263
- An odontometric study of a Tibetan Population.** Aust Orthod J.
[Divakar HS](#), Jayade VP [PMID: 9590924](#) 1998; 15: 93-100
- Effect of Thread Design of Orthodontic Mini Implants on Their Stability - A Pilot Study** International Journal of Science and Engineering Investigations
Abdelgader I, [Karanth D](#), Bourauef C 2016;5; 24-28
- Tooth size discrepancy in a Libyan population, a cross-sectional study in schoolchildren.** J. Clin. Exp. Dent.
Bugalighis I, [Karanth D](#), Borzabadi-Farahani A [PMID: 25810819](#) 2015;7(1); 100-5
- Mixed-dentition analysis in Libyan schoolchildren.** J Orthod Sci.
Bugalighis I, [Karanth D](#), Elmouadeb H [PMID: 24987652](#) 2013;2: 115-119
- Prevalence of malocclusion in urban Libyan schoolchildren.** J Orthod Sci
Bugalighis I, [Karanth D](#) [PMID: 24987636](#) 2013;2: 50-54
- A Comparative Study of Physical and Mechanical Properties of the Different Grades of Australian Stainless-Steel Wires.** Trends Biomater. Artif. Organs
S.G. Sankar, V.S. Shetty, [H.S.D.Karanth](#) 2011;25: 67-74
- Force characteristics of nickel-titanium open and closed coil springs in a simulated oral environment.** J Ind Orthod Soc.
Jebby J, [Karanth H.S.D](#), Shetty K.S. 2002;35:76-88
- Canine retraction by sectional arch technique: Comparison of characteristics between T Loop retraction spring and PG retraction spring** J Ind Orthod Soc.
[Karanth H.S.D](#), Shetty V.S. 2002;35:17-27
- Orthodontic tooth movement and the bioelectricity** Indian J Dent Res.
[Karanth HS](#), Shetty. K.S. [PMID: 11987660](#) 2001;12: 212-221
- Comparative study of various intrusive arches** J Ind Orthod Soc.
[Karanth H.S.D](#), Shetty V.S. 2001;34:82-91
- Interpretation of hand and wrist radiographs in estimating the skeletal maturational status** J Ind Dent Assoc.
[Divakar HS](#), Jayade VP 2000;71:122-125
- Genetic considerations in orthodontics** Indian Journal of Orofacial Genetics
[Divakar HS](#), Shama P, Shetty VS 1998;1:6-12
- Rectangular finishing wires** J Ind Orthod Soc.
[Divakar HS](#), Jayade VP 1997; 28: 3-10
- A comparison of mandibular condylar locations between the unstrained rest position and maximum intercuspal position in temporomandibular dysfunction cases and in asymptomatic subjects, using a Mandibular Position Indicator** J Ind Orthod Soc.
[Divakar HS](#), Jayade VP 1996; 27: 63- 73
- Perception of profile: Use of "Jig-Saw"** J Ind Orthod Soc.
[Divakar HS](#), Gopalakrishnan NS 1995; 26: 89- 93
- Comparison of uprighting springs made from lighter Australian wires - A pilot study** J Ind Orthod Soc.
[Divakar HS](#), Jayade VP 1995; 26:15-17

Contribution to Books

Primary Failure of Eruption

Lorri Ann Morford, James K. Hartsfield, Jr., [Divakar Karanth](#)

Genetics in Orthodontics

James K. Hartsfield, Jr., Lorri Ann Morford, ed. In Progress

Clear Aligner Treatment

Mohamed Bazina, Divakar Karanth, ed. In Progress

Preventive and Interceptive Orthodontics

[Divakar HS](#)

Orthodontics, The Art and Science

Bhalajhi SI, ed. New Delhi: Arya (Medi) Publishing House, 1997:223-234

Evolution of occlusion

[Divakar HS](#)

Dental Anatomy, Histology and Development

Bhalajhi SI, ed. New Delhi: Arya(Medi)Publishing House, 1998

Delaire's architectural and structural craniofacial analysis

Abraham MT, Gopalakrishnan NS, [Divakar HS](#)

Complete Management of Cleft lip and Palate.

Gopalkrishnan NS. Ed. Dharwad: BM Group Publication 1993:150-157

Abstracts

3D printed biodegradable piezoelectric scaffold for bone regeneration.

[D. Karanth](#), L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

<https://iadr.abstractarchives.com/abstract/20iags-3321082/3d-printed-biodegradable-piezoelectric-scaffold-for-bone-regeneration>

[J Dent Res](#)

99(A) 0870, 2020.

Skeletal Anchorage in a Rat Model of Orthodontic Tooth Movement.

Y. Ibrahim, S. Gudhimella, [D Karanth](#), S. Pandruvada, S. Huja

<https://iadr.abstractarchives.com/abstract/17iags-2640085/skeletal-anchorage-in-a-rat-model-of-orthodontic-tooth-movement>

[J Dent Res](#)

96 (A) 3188, 2017.

Rate of Orthodontic Tooth Movement (OTM) in a Rodent Model Using Light Forces.

S. Gudhimella, Y. Ibrahim, A. Kluemper, [D Karanth](#), S. Pandruvada, P. Westgate, D. Puleo, S. Huja

<https://iadr.abstractarchives.com/abstract/17iags-2639908/rate-of-orthodontic-tooth-movement-otm-in-a-rodent-model-using-light-forces>

[J Dent Res](#)

96 (A) 3187, 2017.

Residents' Journal Review:

Hartsfield JK, Kluemper TM, Dan G, [Karanth D](#)

[Am J Orthod Dentofacial Orthop](#)

2018; 153:616-9

Interpretation of hand and wrist radiographs in estimating skeletal maturational status.

[Divakar HS](#), Jayade VP

[Indian J Dent Res.](#)

2001:12:112

Biochemical events associated with Connective tissue remodeling

[HS Divakar Karanth](#)

[J Ind Orthod Soc.](#)

2000; 33: 48

Genetic considerations in orthodontics.

[Divakar HS](#), Shama P, Shetty VS

[Indian Journal of Orofacial Genetics](#)

1998; 1: 33

Comparison of intrusive arches

[Divakar HS](#), Shetty VS

[J Ind Orthod Soc.](#)

1998; 30: 99

Image from the Research work featured in the University of Kentucky website

<https://www.research.uky.edu/light-microscopy-core>

Google Scholar link

https://scholar.google.com/citations?hl=en&user=Smg-Uo8AAAAJ&view_op=list_works&sortby=pubdate

ResearchGate link

https://www.researchgate.net/profile/Divakar_Karanth

Research Projects

MASTER'S THESIS, UNIVERSITY OF KENTUCKY

1. Developing and evaluating the piezoelectric scaffold for alveolar bone regeneration.

2017-2020

D. Karanth, L. Sharab, D.R. Dawson, H.W. Roberts, D.A. Puleo

This research was funded by an NIH pilot study grant. We developed and analyzed a biodegradable scaffold using poly L-lactic acid (PLLA), a biocompatible and electroactive polymer that could be used for bone regeneration. Fiber size of 150 μ m and the pore-size of 300 μ m scaffolds were 3D printed using a Prusa i3 MK3[®] printer. The surface morphology of the scaffold was studied using SEM. The microarchitectural analysis was done using MicroCT. Crystallographic characterization was done by X-ray diffraction. Elasticity modulus was tested using the electromechanical testing system. The piezoelectric potential generation upon mechanical distortion was characterized using piezo film lab pre-amplifier and an oscilloscope. Hydrolytic degradation was studied at 4, 8 and 12 weeks. Cytotoxicity test was done using osteoblast cells grown on the scaffold using the CCK8 cell viability test. SEM and multiphoton microscopy were used to analyze the cell attachment to the scaffold and their proliferation. The 3D printed PLLA scaffold showed promising properties akin to the natural bone, and it is worth investigating further for bone regeneration.

CRANIOFACIAL BIOLOGY EXTERNSHIP RESEARCH, UNIVERSITY OF KENTUCKY:

2. A rodent model using skeletal anchorage and low forces for orthodontic tooth movement.

2016-2017

S. Gudhimella, D. Karanth, A. Ibrahim, A. Kluemper, P. Westgate, S.S. Huja

The purpose of this study was to determine the viability of a skeletal anchorage and the effect of low force (~3 cN) on inter radicular bone volume during OTM. Ninety Sprague-Dawley rats were divided into 5-time points. A miniscrew and a nickel-titanium coil spring placed a load of 3 cN (experimental) or 0 cN (sham) on the maxillary first molar in a split-mouth design. Displacement of the first molar and bone volume/total volume (BV/TV) in the interradicular region were quantified. The success rate of the miniscrew was 98.9% (89 out of 90). Linear and angular tooth movement increased steadily (mean 0.1 mm/wk, 0.48 mm at 40 days). BV/TV was significantly reduced between the tooth movement and non-tooth movement sides in the 3 cN group: by 13%, 23%, 15%, 23%, and 16% at 3, 7, 14, 28, and 40 days, respectively. Our model resulted in efficient OTM without skeletal anchorage failure. BV/TV reduction was lower than in previous reports. This novel validated model is likely to be the basis for future studies.

3. Relationships between Moderate to Severe External Apical Root Resorption (EARR) concurrent with Orthodontic Treatment and Patient-Reported Allergy and/or Asthma

2016-2017

D. Karanth, L. A. Morford, J. Dempsey, M. Moremi, A. Abouelnour, G. Falcao-Alencar, G. T. Kluemper, J. V. Macri, J. K. Hartsfield, Jr.

This study was designed to test the hypothesis that patients with self-reported allergies and/or asthma would be at higher risk of developing EARR concurrent with orthodontia than allergy/asthma-free individuals. Besides, we hypothesized those patients who lack tonsils/adenoids prior to orthodontic treatment would be at lower risk of EARR. We investigated the interaction between EARR, EARR-associated genetic variations and allergy/asthma. **Method:** This case-control study included 1458 orthodontically treated patients recruited from an Indiana Private Practice, pre and post-treatment radiographs from 530 Caucasian patients were evaluated for EARR. 39 EARR cases were identified. Cases were age and sex-matched with two "unaffected"-controls. Buccal swabs were collected, genomic DNA isolated, and genetic markers tested within the IL1b and P2RX7 genes. Chi-square or logistic regression was used to test for associations/interactions between EARR and self-reported health history (SRHH) or genetic data, with significance at $p < 0.05$. **Results:** The number of "unaffected"-controls with allergies was significantly elevated compared to EARR-cases with allergies ($p = 0.01$; odds ratio (OR) = 0.27 95%CI=0.09-0.86). There were no significant associations between EARR-status and asthma ($p = 0.46$), tonsil-removal ($p = 0.38$) or adenoid-removal ($p = 0.65$). There were no interactions between EARR-status, allergy-status and the genetic markers examined. **Conclusions:** We rejected our hypothesis that allergies associated with EARR-patients more frequently than "unaffected"-control patients. We lacked the power to evaluate relationships between EARR and asthma, or tonsil/adenoid-removal.

MASTER OF DENTAL SURGERY IN ORTHODONTICS THESIS: KARNATAK UNIVERSITY

4. A comparison of mandibular condylar location between unstrained retral position and maximum inter-cuspal position in TMD cases and asymptomatic subjects, using a Mandibular Position indicator.

1992-1995

Divakar HS, Jayade VP

Research Committee Chair “Master of Sciences in Orthodontics”

- Genioplasty: A retrospective cephalometric analysis of osseous and soft tissue changes. 2000-2007
- An analysis of soft tissue changes associated with incisor decompensation before and after orthognathic surgery- A cephalometric study.
- Calibration of force-extension and force degradation characteristics of orthodontic latex elastics.
- Incidence of tooth size discrepancy in different groups of malocclusions and its relation to extraction: A Model Study.
- Comparison of soft tissue changes, anchorage loss, torque requirement following space closure with MBT and ROTH prescription in skeletal bi-maxillary protrusion cases. A cephalometric study.

Orthodontic Continuing Education Courses Attended

- Controversial Topics in Orthodontics: Can We Reach Consensus? The 47th Annual Moyers Symposium** Feb 2020
Dr. David Rice, Dr. James McNamara, Dr. Won Moon, Dr. Chin-Wei Wang, Dr. Alexandre DaSilva, Dr. Jeffrey Nickel, Dr. Bhavna Shroff, Dr. Carlos Flores Mir, Dr. Mazyar Moshiri. at Ann Arbor, Michigan
- American Association of Orthodontists 2019 Annual meeting** May. 2019
Los Angeles, CA.
- Southern Association of Orthodontists 2019 Annual meeting** Nov. 2019
Orlando, FL
- Impact of 3D Digital Technology in Orthodontics & Creating an Efficient Digital Workflow.** Aug. 2019
Dr. Edwin Lin, KAO annual meeting, Frankfort, KY.
- American Association of Orthodontists 2018 Annual meeting** May. 2018
Washington, DC.
- Be the Digital Orthodontist: Learn to 3D surf** Aug. 2018
Dr. Christian Kenworthy, KAO 2018 Annual Meeting, Louisville, KY.
- Digital -CAD/CAM Orthodontics & The Evolution of Lingual Orthodontics** May 2018
Dr. Brandon Owen, University of Kentucky Graduation CE course, Lexington, KY
- Effective, Efficient and personalized Orthodontics: Patient-centered approaches and innovations** March 2018
Dr. William Giannobile, Dr. David Carlson, Dr. Laura Iwasaki, Dr. Thomas Kluemper, Dr. David Sarver at Ann Arbor, Michigan
- Efficiency in orthodontics and what’s new in accelerated orthodontics** August 2017
Dr. Chung How Kau. Kentucky Association of Orthodontists 2017 Annual Meeting, KY.
- Clinical Trial Network and Team Science: Moving Discoveries to Interventions** March 2017
12th Annual CCTS Spring Conference, Lexington, KY
- Sleep Apnea: What every clinician (and patient) should know. The 44th Moyers Symposium.** March 2017
Dr. Anita Shelgikar, Dr. Douglas Krisch, Dr. Vishesh Kapur, Dr. Joseph Helman, Dr. Timothy Hoban at Ann Arbor, Michigan.
- Personalized and Precision Orthodontic Therapy- 2016 Innovators’ workshop** Sept 2016
Dr. David Covell, Dr. Laura Iwasaki, Dr. Frazier-Bowers, Dr. Sunil Kapila, Dr. Huja, Dr. Nickel at West Palm Beach, Florida
- Excellence in Orthodontics** June 2011
Dr. Girish Karandikar, Dr. Sridhar Premkumar, Dr. Jayesh Rahalkar at Hubli, India.
- Fundamentals of Professional Photography** March 2011
Mr. Prasad Pankar, CMYK Academy of Photography, Goa, India.
- Contemporary edgewise treatment with the pre-adjusted appliance: Current concepts and technique** Nov. 2006
Dr. Anup Sondhi, Indianapolis, USA.
- Basic Lingual Orthodontic Course** April 2006

Dr. Rafi Romano, Tel Aviv, Israel.

Meeting Today's Orthodontic Challenges with MBT System	Nov. 2005
Dr. John Bennett, Dr. Fredrik Bergstrand, London, U.K.	
The biological basis of Orthodontics and Optimal Orthodontics with amalgamated Technique	July 2005
Dr. Ze'ev Davidovitch, Ohio, & Dubravko Pavlin, Texas, USA.	
Micro implant Anchorage (MIA) and Lingual Orthodontics	Nov. 2004
Dr. Hee Moon Kyung, Daegu, Korea.	
Sheridan (Essix) Technology	Nov. 2004
Dr. John J. Sheridan from Louisiana, USA.	
Common Sense Mechanics in everyday Orthodontics	Nov. 2004
Dr. Thomas F Mulligan, Arizona, USA.	
First National Conference on Evidence-Based Dentistry	March 2001
Dr. Derek Richards from Oxford University and Jackstud, Oslo University	
Distraction Osteogenesis Course	Nov. 2001
Prof Bhasker Rao Dr. A. Ayoub, Prof. K.F. Moos, University of Glasgow, United Kingdom.	
Team Management of Cleft and Craniofacial Anomalies	Jan. 2001
Prof. H. Sailer, President, International cleft lip and palate foundation Zurich- Switzerland.	
Biomechanical Basis for Excellence The advanced course	Nov. 2000
Dr. Rohit Sachdeva, Texas, USA.	
BMJ-MAHE Workshop on Medical Writing	Feb. 1998
Mr. Richard Smith, Editor, British Medical Journal, United Kingdom.	
Orthodontic Continuing Education Program	July 1997
Prof. Jyothindra Kumar, Department of Orthodontics, Government Dental College, Trivandrum, India.	
The Refined Begg Appliance, Advanced Course	July 1997
Dr. Doyle W Baldrige, Shreveport, LA, USA.	
Biostatistical Technique in Controlled Clinical Trials	March 1996
The Indian Council of Medical Research (ICMR) Chennai, India. (Two weeks course)	
Biomechanics in Space Closure	Nov. 1995
Dr. Rohit C.L. Sachdeva, Baylor University, TX, USA.	
Modern Begg Course	Nov. 1995
Dr. Colin Twelftree, Australia.	
Workshop on Surgical Orthodontics	March 1995
Prof. Malcolm Jones and Mr. Adrian Sugar, Cardiff, United Kingdom.	
Complete Management of Cleft lip and Palate	Dec. 1993
Drs. AF Markus, V. Illankovan, RB Ward-Booth, N Samman, JFW Hodgkins, United Kingdom.	
An update on the refinements in Orthodontic techniques	June 1993
Indian Orthodontic Society at Dharwad, India.	
Twin Block Technique	April 1993
Prof. Jayade, Dharwad, India.	
Mixed Dentition Treatment	Jan. 1993
Prof. Peterson from Loma Linda University, USA.	

Faculty Member of Continuing Orthodontic Courses

Basic techniques in Orthodontics Workshop organized by "Rajasthan Orthodontic Study Group"	Dec 2007
Hands-on orientation course on MBT philosophy & technique Hyderabad Orthodontic study group	Sept 2007
Comprehensive Hands-on course on MBT Treatment Mechanics Four days of Continuous Education Program	July 2007
Hands-on course on MBT Treatment Mechanics Four days of Continuous Education Program	March 2006
Hands-on course on MBT Treatment Mechanics Four days of Continuous Education Program	Feb. 2005
Hands-on course on Surgical Orthodontics using MBT Treatment Mechanics Four days of Continuous Education Program	Feb. 2004
Comprehensive Hands-on course on MBT Treatment Mechanics Four days of Continuous Education Program	Feb. 2003
Comprehensive Hands-on course on Pre adjusted edgewise appliance Four days of Continuous Education Program	Feb. 2002
Comprehensive Hands-on course on Pre adjusted edgewise appliance Four days of Continuous Education Program	June 2000

Professional Affiliations

American Association of Orthodontics (AAO)	Member
Southern Association of Orthodontics (SAO)	Member
Kentucky Association of Orthodontics (KAO)	Member
American Dental Association (ADA) (Kentucky Dental Association, Blue Grass Dental Society)	Member
International / American Association for Dental Research (IADR/AADR)	Member
American Dental Education Association (ADEA)	Member
Consortium for Translational Orthodontic Research (CTOR) Hoboken, NJ	Member
Indian Orthodontic Society	Life member
Indian Society for Dental Research (Branch of IADR)	Life member
Indian Academy of Orofacial Genetics	Founder member

Moderator for the Scientific Sessions

9th Indian Orthodontic Society's Post Graduate Students Convention	Dharwad, 2005
8th Indian Orthodontic Society's Post Graduate Students Convention	Mangalore, 2004
39th Indian Orthodontic Conference	Davangere, 2004
38th Indian Orthodontic Conference	Coimbatore, 2003
37th Indian Orthodontic Conference	Lucknow, 2002
36th Indian Orthodontic Conference	Cochin, 2001

Professional Positions

Reviewer	Biomedical Materials	2020
	Biomedical Materials Research: Part B - Applied Biomaterials	2020
	Biomedical Physics & Engineering	2020
	Orthodontics and Craniofacial Research	2020
Editorial Board	Journal of Indian Orthodontic Society	1996-2009
Editor	Indian Journal of Orofacial Genetics.	1997-1998
Assistant Editor	Indian Journal of Dental Research.	1997-1998
Book & Journal Reviewer	Indian Journal of Dental Research.	1997-1998
Editorial Board	Medical Science Monitor, New York.	2002
Chairmen, Students scientific Sessions	39 th Indian Orthodontic Conference, Davangere.	2004
Judge, Students scientific Sessions	36 th Indian Orthodontic Conference, Cochin.	2001
Organizing committee	39th Indian Orthodontic Conference, Davangere.	2004
Inspection committee member	Rajiv Gandhi University of Health Sciences, Karnataka.	2002-2007
Inspection committee member	Dental Council of India, New Delhi.	2002-2007

Committee memberships

Code of Professional and Academic Responsibility Committee (Honor Code Committee).	University of Kentucky College of Dentistry	2017-2018
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Community Service

Give Kids A Smile	University of Kentucky College of Dentistry	Feb 2020
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