Join New York University in the first steps toward the Future of Orthodontics


This meeting will bring together clinicians, scientists, educators and residents for the latest updates in the science of orthodontics and dentofacial growth. It will feature a panel of distinguished clinicians and researchers renowned for their contributions to unraveling the intricacies of the human craniofacial complex. A poster competition and Symposium Reception will round out the activities.

Attendees will experience a novel Symposium format where the organizers have challenged the speakers to go beyond the retelling of their research findings – to envision innovative applications of their research to revolutionize orthodontic treatment. Audience members will also engage the speakers in spirited Discussions, further challenging everyone to dig for surprising discoveries hidden among the interdisciplinary data presented at the Symposium.

Join us this Fall in New York City

Symposium registration Fee
Resident $50  Faculty $200  Orthodontist/General Practitioner $300
After September 1st, fees will be as follows:
Resident $100, Faculty $300, Orthodontist/General Practitioner $400

Register online today at orthodonticscientist.org
What can virtual functional simulation tell us about craniofacial form and function?

**Paul O’Higgins, PhD**

Paul O’Higgins is Head of the Centre for Anatomical and Human Sciences at Hull York Medical School and in the Department of Archaeology, the University of York. His research focuses on the evolution and function of the skeletal system, with an emphasis on comparative and developmental studies, particularly of the cranium in humans and our ancestors.

Facet ime reconstructed: an evolutionary history of human facial growth and development

**Timothy Bromage, PhD**

Tim Bromage directs the Hard Tissue Research Unit of the Department of Biomaterials and Biomimetics, New York University College of Dentistry. His research on the chronobiological rhythm in bone microstructure and its relation to a previously observed but enigmatic enamel formation rhythm in mammals, established the basis for understanding how chronobiology and organismal life history evolution are integrated.

Can Gene Therapy Affect Craniofacial Form?

**Cristina Teixeira, DMD, MS, PhD**

Cristina Teixeira is Chair and Associate Professor in the Department of Orthodontics at New York University College of Dentistry. Her research focus on endochondral bone formation, craniofacial growth, skeletogenesis, and gene therapy.

Genetics of the human face

**Manfred Kayser, PhD**

Manfred Kayser is a Professor and Founding Head of the Department of Forensic Molecular Biology at the Erasmus MC University Medical Center Rotterdam. His research on the genetic basis of human appearance lead to the introduction of DNA-based prediction of appearance traits to forensics.

Can we restore normal occlusal development through early orthodontic treatment?

**Juha Varrela, DDS, DOrthod**

Juha Varrela is the Professor and Head of the Department of Oral Development and Orthodontics as well as the Dean of the Institute of Dentistry at the University of Turku, Finland. His main areas of scientific interest include genetic and environmental regulation of growth and development, early development of malocclusions, and early orthodontic treatment.

The Death of Senseless Orthodontics

**Jeanne Nervina, DMD, PhD**

Jeanne Nervina is Assistant Professor at the Department of Orthodontics and Director of the Department’s Craniofacial Orthodontics Clinic at New York University College of Dentistry. Her research in molecular bone biology focuses on osteoblast differentiation and function, bone metabolism and craniofacial development. She is also active in developing "smart" orthodontic appliances and translational research.

Have TADs changed the role of orthodontists in the rehabilitation of degenerated dentitions?

**Birte Melsen, DDS, DOrthod**

Birte Melsen has been Professor and Head at the Department of Orthodontics, School of Dentistry, University of Aarhus from 1975 to 2012. Her special interest is in the fields of skeletal anchorage, virtual imaging, adult orthodontics and stem cells.

Why Teeth Move?

**Jill Helms, DDS, PhD**

Jill Helms is Professor in the Department of Surgery at Stanford University. Her research interests center around regenerative medicine and craniofacial development, and the use of adult stem cells to regenerate damaged or diseased tissues.

The Benefit of Surgery, The Drawback of Scars

**Anne Marie Kuijpers-Jagtman, DDS, PhD**

Anne Marie Kuijpers-Jagtman is Professor Em of Orthodontics, Department of Orthodontics and Craniofacial Biology, Radboud University Nijmegen, Netherlands. Her research focus on cleft lip and palate, 3D imaging, and development of evidence-based treatment strategies.
8.00 - 9.00  Registration & Breakfast

9.00 - 9.05  Welcome Address
CTOR Director: Mani Alikhani, DMD, MS, PhD

9.05 - 9.40  Genetics of the human face
Manfred Kayser, PhD

9.40 - 10.15  What can virtual functional simulation tell us about craniofacial form and function?
Paul O’Higgins, PhD

10.15 - 10.45  Facetime reconstructed: an evolutionary history of human facial growth and development
Timothy Bromage, PhD

10.45 - 11.00  Coffee Break

11.00 - 11.35  Changing the Form: From Sutural Expansion to Cortical Drift
Mani Alikhani, DMD, MS, PhD

11.35 - 12.05  The Benefit of Surgery, The Drawback of Scars
Anne Marie Kuijpers-Jagtman, DDS, DOrthod

12.05 - 12.40  Can Gene Therapy Affect Craniofacial Form?
Cristina Teixeira, DMD, MS, PhD

12.40 - 1.00  Panel Discussion

1.00 - 2.00  Lunch & Poster Viewing

2.00 - 2.35  Have TADs changed the role of orthodontists in the rehabilitation of degenerated dentitions?
Birte Melsen, DDS, DOrthod

2.35 - 3.10  Why Teeth Move?
Jill Helms, DDS, PhD

3.10 - 3.20  Coffee Break

3.20 - 3.55  Can we restore normal occlusal development through early orthodontic treatment?
Juha Varrela, DDS, DOrthod

3.55 - 4.30  The Death of Senseless Orthodontics
Jeanne Nervina, DMD, PhD

4.30 - 5.00  Panel Discussion

5.00 - 6.00  Reception & Poster Viewing