



consortium for translational orthodontic research

# CTOR PHILOSOPHY

## **MISSION**

The Consortium for Translational Orthodontic Research (CTOR) is committed to revolutionizing Orthodontic research and education to improve the quality of care for our patients.

## **TRANSLATIONAL RESEARCH**

We believe that translational research holds the key to improving current Orthodontic treatments by training Orthodontists and Craniofacial Biologists to weave cutting edge basic sciences with evidence-based clinical trials to create efficient, faster and safer approaches to Orthodontic treatment.

## **EDUCATION**

We constantly scan translational research horizons to identify emerging technologies that will help us fulfill our Mission. We strongly believe that this requires additional education beyond the current standards for Orthodontics. CTOR offers a variety of programs to fit the educational needs of Orthodontists and Craniofacial Biologists at all stages of their careers from around the world.



## Founder & Director

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### **Mani Alikhani, DMD, MS, PhD**

Dr. Mani Alikhani is a faculty at Harvard School of Dental Medicine and The Forsyth Institute. He earned his BS in Physics, MS in Biomedical Engineering and PhD in Molecular Biology. His DMD is from Tufts University and his Certificate in Orthodontics is from New York University. Dr. Alikhani is renowned for his innovative approaches to accelerated tooth movement and non-surgical treatment of severe malocclusions.

# **TRANSLATIONAL RESEARCH FELLOWSHIP**

**MS/PHD**

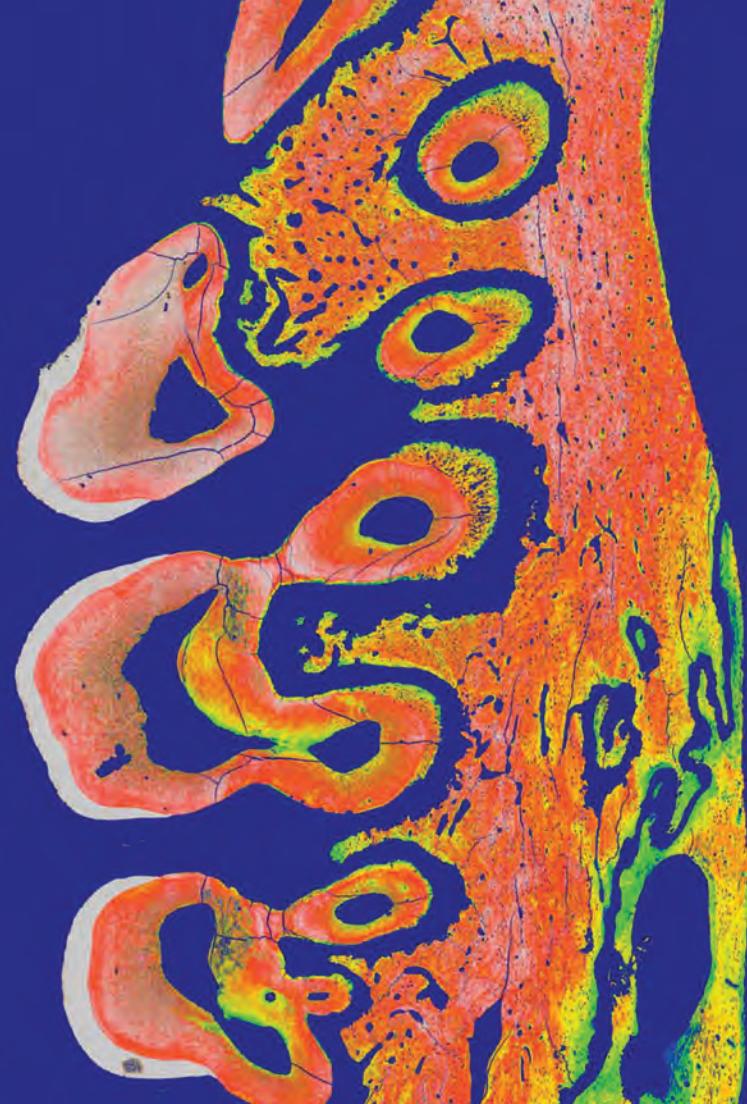


CTOR and Stevens Institute of Technology have joined forces to offer  
CTOR Fellows an opportunity to enroll in combined programs leading to:

- Fellowship (1 year program)
- Fellowship + Master's Degree in Bioengineering (2 year program)
- Fellowship + PhD Degree in Biomedical Engineering or Biomedical Sciences  
(4 year program)

The CTOR Fellowship in Translational Orthodontics Research will give our students  
the tools to contribute to advancements in Orthodontics.

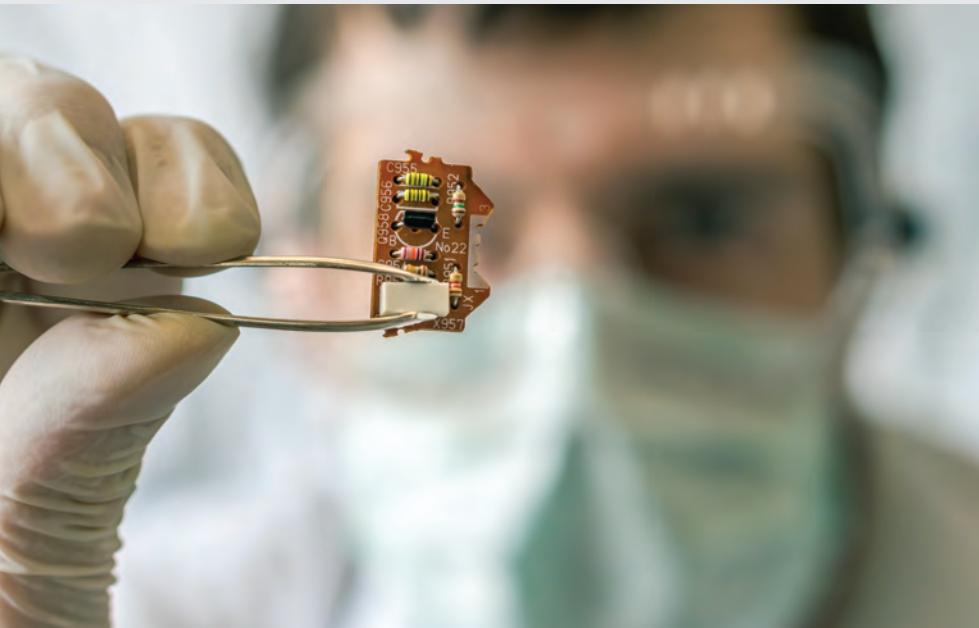
The combined Fellowship + MS or PhD will give our graduates the clinical and  
engineering credentials needed to succeed, whether their career goal is to lead  
an academia-based or practice-based Orthodontics research program.



# Fellowship + MS in Bioengineering

The combination of CTOR Fellowship in Translational Orthodontic Research with Master of Science in Bioengineering is tailored for students who have a strong interest in science and who would like the skills needed to develop materials and devices at the intersection of Orthodontics and Engineering. A Master's Degree in Bioengineering prepares students to enter the biotechnology, pharmaceutical, medical/dental device fields.

This interdisciplinary program focuses on bone biology, tissue engineering, and regenerative medicine methods to improve healthcare in craniofacial orthopedics and orthodontics.



## Courses in Bioengineering

- Molecular Biology
- Biomaterials
- Principles of Tissue Engineering
- Cellular Signal Transduction
- Nanomedicine
- Bioethics
- Introduction to Pharmaceutical Manufacturing

# Fellowship + PhD in Biomedical Engineering or Biomedical Science

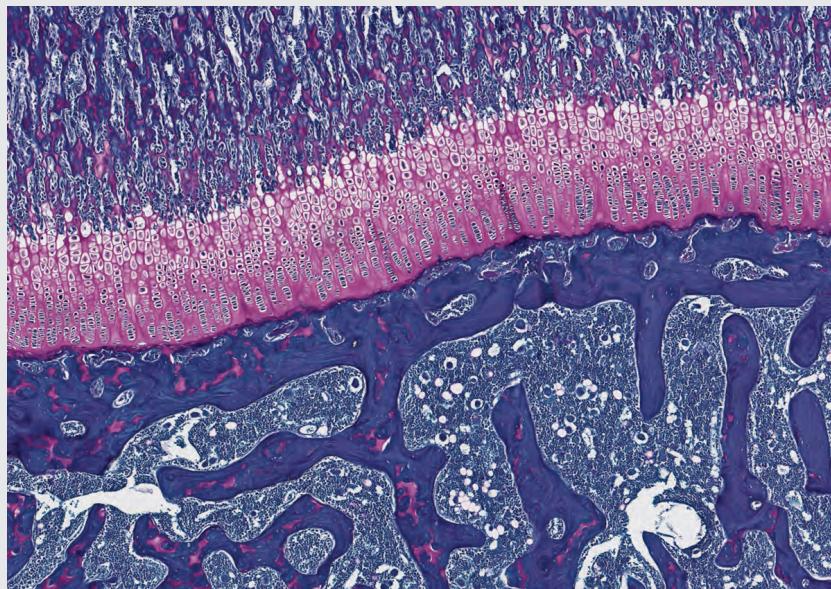
The purpose of the combined CTOR Fellowship in Translational Orthodontic Research and Doctoral Program is to educate scientists/clinicians poised to thrive in Academia, Industry or Medicine/Dentistry.

A large part of the doctoral work is done through independent study. This includes preparation for the qualifying examination, the preparation of research proposals and seminars and familiarization with the current scientific literature in your field of interest.

Here at CTOR we measure a clinician's success using two metrics: 1) excellence in patient care and 2) contributing to innovative diagnostic, treatment and preventive devices and protocols that push healthcare forward. Our Fellowship + PhD Program is designed for people who strive to be successful clinicians and want to join us as we revolutionize Orthodontics and Craniofacial Orthopedics.

## Courses in Biomedical Engineering/Science

- Strategies and Principles of Biomedical Design
- Advanced Biomedical Engineering Laboratory
- Advanced Biomechanics
- Intro to Brain-Machine Interfaces
- Advanced Biomaterials
- Nanobiotechnology



## Application

For application requirements, deadlines and starting dates for our programs

**visit** [www.ctor.academy](http://www.ctor.academy)

**email** [administrator@ctor.academy](mailto:administrator@ctor.academy)

**call** +1-551-900-6202

**ADA C.E.R.P.** | Continuing Education  
Recognition Program

CTOR Academy is an ADA CERP Recognized Provider. ADA CERP is a service of the American Dental Association to assist dental professionals in identifying quality providers of continuing dental education. ADA CERP does not approve or endorse individual courses or instructors, nor does it imply acceptance of credit hours by boards of dentistry.

**JOIN  
THE FUTURE  
OF  
ORTHODONTICS**