

## Orthodontic Faculty Development Fellowship Award

**Dr. Eliane Dutra, *University of Connecticut Health Center***

### **Biography**

I received my DDS from the Federal University of Santa Maria and a MSD in Orthodontics from the Pontifical Catholic University of Parana, in Brazil. I moved to the United States and obtained a PhD degree and an orthodontic certificate from the University of Connecticut Health Center (UCHC). I am currently a full-time Assistant Professor in the Division of Orthodontics at the UCHC and the program director of the orthodontic predoctoral curriculum. I dedicate my time to undergraduate and graduate education, as well as to research and patient care.



### **Project Synopsis**

My interest for temporomandibular joint biology started during my orthodontic residency at UCHC when I studied factors that alter the homeostasis of the TMJ. Those projects have expanded my research interests, and I had the opportunity, through my continuous collaboration with Dr. Sumit Yadav, to evaluate the effects of the intermittent administration of parathyroid hormone (I-PTH) in the mandibular condyle of mice. I-PTH is the only bone anabolic treatment approved by the FDA and we found that short-term I-PTH administration in mice leads to increased cell proliferation, differentiation and matrix deposition in the mandibular condylar cartilage (MCC), suggesting a possible chondroprotective effect of I-PTH. The only treatments available for TMDs are palliative and there is no current therapy for TMJ regeneration. In the current proposal, we aim to investigate the molecular mechanisms by which I-PTH exerts its anabolic effect in the MCC. The results of this project will provide insights for the development of safe therapies for TMJ regeneration.

### **Importance of AAOF Funding**

My journey as a junior faculty has been challenging but also very gratifying, and the funding from AAOF has been helping to establish myself as a successful academician in Orthodontics. My goal is to continue to grow as a clinician and craniofacial scientist. The support from AAOF through the Orthodontic Faculty Development Fellowship Award will provide the necessary support I need to initiate my path in becoming an independent investigator.