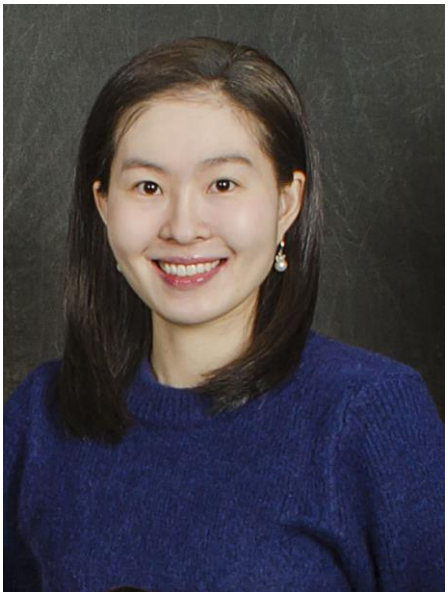
Orthodontic Faculty Development Fellowship Award

Dr. Sohyon (Michelle) Kim, Oregon Health & Science University

2019 Willie and Earl Shepard Orthodontic Faculty Development Fellowship Award:

Mandibular incisor inclination changes produced by Class II elastics in fixed labial orthodontic appliances and clear aligner therapy: A retrospective analysis

Biography:



Dr. Kim was born in Seoul, South Korea. Her university degrees are from Yonsei University: SA and SSA (1998-2003) and the University of Pittsburgh: DMD (2009-2013). Prior to her faculty appointment with OHSU, she worked as an associate orthodontist in Texas and an adjunct instructor of Orthodontics at the University of Pittsburgh (2016-2017).

Description of the Project:

Class II malocclusion is a common chief complaint of orthodontic patients, affecting nearly 15% of 12- to 15-year-olds in the United States. One of the most widely used treatment protocols for correction of Class II malocclusion is Class II inter-arch elastics. Some authors have reported side effects of Class II elastics, such as loss of mandibular posterior anchorage, extrusion of maxillary incisors, and proclination of mandibular incisors. As orthodontic treatment has gained more popularity among adults, esthetic treatment options have emerged. Clear aligner therapy (CAT) is the newest treatment option in this area and has become popular in the recent years, especially among adult patients. However, there has been no study evaluating the change in mandibular incisor inclination and treatment time duration resulting from Class II elastics with CAT compared to fixed labial orthodontic appliances (FAT). Hence, this retrospective pilot study will address the hypotheses that Class II orthodontic treatment using Class II elastics in adults will be no different between CAT and FAT in terms of change in lower incisor inclination and treatment time, via two specific aims.

Specific Aims:

1. To determine if there is any significant difference in mandibular incisor inclination change from pre- to post-treatment in Class II adult cases treated with Class II elastics and CAT versus FAT.
2. To determine if there is any significant difference in treatment time in Class II adult cases treated with Class II elastics depending on CAT versus FAT and elastic wear compliance.

How orthodontic education **will** benefit from the award:

Currently, there is little information concerning the change in mandibular incisor inclination and treatment time duration resulting from Class II elastics with CAT compared to FAT. The AAOF award will support the development of a body of knowledge that will be used to make scientifically informed decisions concerning effectiveness of CAT when used with Class II elastics.

Why the Foundation is important to the project: The funding from the AAOF supports my developmental plans as a junior faculty so that I can further develop myself as a scholar, an educator, a researcher, and a clinician.

How Foundation funding has advanced my career: This is my first time to be a recipient for the funding by the AAOF. The funding from the AAOF will be a key component for me to succeed as a junior faculty member and continue to develop myself as an academic orthodontist.