

Biomedical Research Award

Dr. Phimon Atsawasuwan, *The University of Illinois at Chicago*

Dr. Phimon Atsawasuwan received his D.D.S. and M.Sc. in Periodontics from Mahidol University, Thailand and another M.Sc. in Periodontology from Eastman Dental Institute, University College London, United Kingdom. He then received his Ph.D. in Oral Biology from the University of North Carolina at Chapel Hill and his M.S. certificate in Orthodontics from the University of Illinois at Chicago. Upon graduation, he became a Diplomate of the American Board of Orthodontics and joined the department of Orthodontics, University of Illinois at Chicago as an Assistant Professor. He was awarded the Thomas M. Graber award of Special Merit from AAO for his M.S. thesis. He has received numerous awards and grants



including the T.M. Graber Teaching Fellowship and the Biomedical Research Award from AAOF in 2014 and 2015. He has published more than forty original articles in several peer-reviewed journals and case reports in *AJO-DO* and *JCO*. He serves as an ad-hoc reviewer for several peer-reviewed journals including *Journal of Dental Research*, *Scientific Reports*, *Bone*, *Gene*, *European Journal of Oral Sciences*, *Connective Tissue Research*, and *Progress in Orthodontics*. His research interests include cellular and molecular mechanisms of craniofacial anomalies and disorders, cellular and epigenetic control mechanisms of orthodontic tooth movement. He utilizes cell culture and animal models to investigate the cellular and epigenetic mechanisms of tooth movement and periodontal and bone remodeling.

He was awarded the 2017 Biomedical Research Award from the AAOF, which he proposes to investigate the effects of secretory microRNA-21 and -29 in human gingival crevicular fluid during orthodontic tooth movement. He will collaborate with Dr. Xiaofeng Zhou, Ph.D., an expert in microRNA biology, to study the profiles of secretory microRNA-21 and 29 during tooth movement and their association with the rate of tooth movement. The aims of this project are to gain better insights into posttranscriptional control mechanism of tooth movement and the role of these secretory miRNAs in gingival crevicular fluid.

With the generous Biomedical Research Award funding from AAOF, he will be able to conduct experiments and obtain some preliminary results for an application of extramural funding from the NIH. The ultimate career goal of Dr. Atsawasuwan is to be an independent investigator and renowned orthodontic educator. At this stage of his career, the funding from AAOF will be a great resource for his career development and preliminary results for the application of extramural federal funding.