

Research Aid Award

Dr. Jennifer Yau, *University of the Pacific, Arthur A. Dugoni School of Dentistry*

I am an American, born and raised in Saratoga, California by immigrant parents. My parents are my role models and have influenced me to be the person I am today. I have endeavored to follow in their footsteps in terms of their work ethics, compassion for others, and high regard for education. This has led me to a health profession in orthodontics and kept me in academics as a part-time faculty member at the University of the Pacific, Arthur A. Dugoni School of Dentistry.



As a part-time faculty member, I have been fortunate to be able to continue my research interests while teaching the orthodontic residents. My project focus is on using cone-beam computed tomography (CBCT) to understand 3-dimensional movements between differing treatment protocols. Specifically, I will be interpreting the results between orthodontically-treated Class I and Class II patients, determining how a Class II sample (through elastics and Forsus) achieve a Class I final occlusion. Skeletal and dental landmarks will be located as (x,y,z) points and then measurements will be analyzed.

The three most significant benefits of this project for the orthodontic community will be: (1) to understand the skeletal and dental contributions for Class II correction; (2) to utilize CBCT as a new modality for clinical treatment assessment; and (3) to develop a preliminary analysis for further CBCT studies. We have yet to fully integrate this modern technology in private practice and advance our understanding of our treatment. Even though orthodontic residencies use CBCT more prevalently, 2-dimensional radiographs are still often extracted for actual superimpositions and analysis. Thus, finding ways to evaluate treatment using CBCT clinically and looking at structures in all three dimensions will broaden our own grasp on treatment effects and, in turn, improve our treatment abilities.

To facilitate this project and conduct it to its fullest potential, a budget to cover simple costs will be helpful. Here, I want to thank the American Association of Orthodontists Foundation for awarding me the Research Aid Award (RAA). The award amount will be able to not only ease my research progress but also allow me to attend orthodontic meetings to learn and share my knowledge. I am excited to begin my project and contribute more to the orthodontic field.

The AAOF has given me an opportunity to pursue my research interests and discover the answers to my questions. Through this, the AAOF has reinforced my choice in continuing a career in academics. Being a part-time faculty member, it is at times challenging to obtain the support a full-time faculty member would have been given. However, the University of the Pacific as well as the American Association of Orthodontists Foundation have given me guidance, encouragement, and financial subsidy. I am looking forward to completing my project and am truly honored and humbled to be recognized by the AAOF.