



Research Aid Award

Dr. Joy Gerasco, University of North Carolina at Chapel Hill

My name is Joy Gerasco and I am a third-year orthodontic resident at University of North Carolina at Chapel Hill. I completed my BS in Chemistry at The Ohio State University and a DMD combined with a PhD at Medical University of South Carolina. My project is focused on understanding how altering the commensal microbiota will alter tooth movement. I am primarily looking at how the antibiotic doxycycline alters bone signaling, since pubertal teens take this medication systemically and long-term for the treatment of acne. While the adult orthodontic population is growing, treatment is primarily aimed towards teens while going through puberty, as this is the time when growth potential is at its highest and thus orthopedic and growth modifying appliances are most successful. Orthodontic education will benefit from this award by allowing a deeper understanding of medication-induced alterations in tooth movement speed during treatment. Additionally, I have always wanted to pursue academic orthodontics and become faculty within an orthodontic department. This award will allow me to continue pursuing my passion, through generation of preliminary data to secure federal funding. Pursuit of basic science research is no small task, and requires robust financial support to be conducted in a rigorous and reproducible manner. This opportunity provided by the AAOF is helping maintain continuity in academic orthodontists' career paths when they need it most.