

## Research Aid Award

### Dr. Laurie Susarchick, *University of Illinois at Chicago*

Dr. Laurie Susarchick grew up in Manhattan, New York. She graduated from Rowan University with a B.A. in Public Relations and then enrolled in the Post-Baccalaureate program at Columbia University where she earned a certificate in pre-medical sciences. Dr. Susarchick continued to earn her DDS at Columbia University College of Dental Medicine and was the recipient of the Summer Research Fellowship in 2015. Dr. Susarchick then headed to the Midwest and is now in her third year of Orthodontic residency at the University of Illinois at Chicago.



The aim of the proposed study, staining ability on retainer materials and effects of cleaning methods on stained retainer materials, is to establish an evidence-based method to clean a variety of “clear” retainers in a non-damaging and effective way. This study proposes to evaluate the translucency and color stability of a two-surface stained retainer material after destaining with different cleaning methods. By doing so, orthodontists can recommend “an evidence-based” method for their patients. This will increase the patient’s long-term retainer wear compliance and the “clear” property of retainers while maintaining its composition.

This research would not be possible if not for the American Association of Orthodontists Foundation. The structure and funding provided by the AAOF will assist us in purchasing materials needed to properly run our project. This includes testing apparatuses and equipment such as ultrasonic cleaners, various staining solutions, and chemical cleaner materials. With this additional funding, our sample size can be robust and our results will be more safely interpreted as statistically significant.

This research intends to advance the field of evidence-based orthodontic education. Thermoplastic aligners are increasing in popularity due to their aesthetic and comfort. In addition, patients who receive traditional care are often given aligners for lifelong retention. However, there is no evidence-based protocol on how to keep these aligners free of bacteria and plaque, how to keep them translucent, and how to maintain their integrity.

As the use of clear retainers continues to increase in practice, research is needed to help add to our collective knowledge base on how to best care for and maintain “clear” aligners and retainers. We intend to use this project as a foundation on which future larger studies can be performed. It will serve as a stepping-stone that clinicians can reference to provide evidence-based recommendations to their patients on how to best clean and maintain their aligners and retainers.