



2024 RAA
Dr. Jason Poon, University of Pennsylvania

1) Short Biography

Dr. Jason Poon is a third-year, periodontic-orthodontic resident at the University of Pennsylvania School of Dental Medicine. He completed his undergraduate studies in Human Development and Family Sciences (HDFS) and Biology at the University of Texas in Austin and earned his dental degree from the University of Texas Health Science Center in San Antonio. Upon graduation, he completed a two-year AEGD program at the VA clinic/hospital in San Antonio, Texas. He is happily married to his wife Pauline and they spend all their time raising (and chasing) their three future perio-ortho kids - Paxson, Kaia, and Sarina.

2) Brief Description of the Project

Over the past two decades, with the collaboration between periodontists and orthodontists, the concept of the periodontally accelerated osteogenic orthodontics (PAOO) approach has been applied, which not only provides acceleration in tooth movement as a result of a stimulated regional acceleratory phenomenon but also increases the alveolar bone volume and range of orthodontic tooth movement by alveolar bone grafting. Additionally, soft tissue augmentation, such as a free gingival graft or a connective tissue graft, is often utilized prior to PAOO if sites benefit from modifying the soft tissue profile. However, soft tissue augmentation requires a secondary surgical site of graft harvesting, increases patients' discomfort and surgical morbidity, and is limited by the available tissue donation sites. Studying potential alternatives in clinical protocols by combining PAOO with non-autograft soft tissue scaffold would benefit our orthodontic patients, especially for patients with thin phenotype. Thus, the research aims to evaluate (1) the effects of using allograft collagen matrix at the time of PAOO as well as (2) the effects of platelet-rich fibrin (PRF), a platelet concentrate autogenous biologic, on the soft tissue profile of PAOO treated patients.

The current proof-of-concept study aims to provide alternatives through modifying PAOO grafting protocols in order to achieve an enhancement in soft tissue augmentation and bone volume simultaneously.

3) Statement of How Orthodontic Education Will Benefit from Your Award

By supporting this clinical research, the AAOF Research Aid Award allows Dr. Poon's team to examine and consider modifications to current surgical approaches of PAOO related to orthodontic patients. Results from the study will be informative to the orthodontic and periodontal surgical community as it may result in improved surgical approaches or validate current standards of PAOO treatment, of which either conclusion ultimately benefits our patients when the diagnosis, treatment planning, and vision of the dental community is uniformly clear.

4) Why the Foundation is Important to Your Project

The AAOF is greatly supporting Dr. Poon's clinical research through direct funding of the project, providing the opportunity to travel and share the present study at future national and local conferences, and ultimately for creating the unique experience of teaming up with the AAOF.

Finances related to the project include surgical materials (bone allograft, collagen membranes, PRF armamentarium/centrifuge, sutures), surgical instruments, as well as items for documentation and data collection (cone beam CT imaging analysis software, photography, patient questionnaires, consents). The goal of teaming with the AAOF now is to promote patient care through our study's comprehensive data collection, contribute to the education of the orthodontic community, and create additional avenues or opportunities of research related to periodontics-orthodontics.

5) How Foundation Funding is Expected to or Has Benefitted Your Career

The AAOF Research Aid Award advances my career, research, and clinical skills as a periodontic-orthodontic resident by supporting our research into PAOO strategies. Presenting at future conferences, like the AAO, provides an opportunity to engage with leading experts and possibly even collaborations. Our research aims to improve PAOO protocols, potentially enhancing treatment methodologies for our patients. The AAOF's support highlights the importance of interdisciplinary research and its impact on patient care and professional education. Overall, the funding empowers me to contribute meaningfully to the orthodontic and periodontal fields, benefiting both my career and the dental community.