



Dr. Min Kyeon Lee
2026 Postdoctoral Fellowship Award
University of Illinois-Chicago

Short biography

Dr. Min Kyeong “Irene” Lee is an Associate Professor at University of Illinois Chicago Department of Orthodontics. She received her DMD, DMSc, and certificate in orthodontics from Harvard School of Dental Medicine and completed a clinical fellowship in Craniofacial and Special Needs Orthodontics at Children’s Hospital Los Angeles. Dr. Lee is a big data analytics researcher with an interest in examining hospital-related outcomes using nationwide datasets.

A brief description of the project

Craniofacial differences encompass a wide range of congenital deformities affecting the cranial and facial structures. The most common craniofacial differences encountered in the United States include cleft lip and/or palate, craniosynostosis, craniofacial microsomia, and Treacher Collins syndrome. The burden of craniofacial differences relates not only to esthetic and functional restoration owing to structural deformities, but also inherent risks of adverse hospital outcomes such as more frequent all-cause hospitalization rate, higher readmission rates, higher airway infections, higher rates of complications, increased severity of disease, more expensive, and in-hospital morbidity and mortality.

This project aims to identify an association between presence of congenital craniofacial differences and outcomes such as hospital costs, length of stay in hospital, disposition status following hospitalization, and development of any complications during hospitalizations selected from the National Inpatient Sample (NIS), the largest all payer inpatient database in the U.S.

How orthodontic education will benefit from your award

The implications of identifying an association between craniofacial differences and hospitalization outcomes are broad and important for health care providers, health policy makers, health educators, and ultimately the patient. Study findings will enable us to better understand the complex interlink between craniofacial differences and systemic health, enable health care providers to identify pathways to improve outcomes in hospitals, change the way medical care is delivered, and potentially change medical and dental educational curriculum.

Why the Foundation is important to your project

The PFA funding will play the key role in the success of this project. The funding will be used to conduct all aspects of the project: purchase the NIS datasets, clean the data, set up of the final dataset analysis, and write the machine learning codes to analyze the data. The funding will also support educational plan and travel expenses to present and disseminate study findings.

How Foundation funding is expected to benefit your career

The PFA funding will be instrumental in completing research as well as didactic activities in education, clinical care, and teaching. The PFA will help me develop these skill sets toward my long-term goal of successful full-time academic career.