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The Medical Dermatology Society (MDS) mentorship award gave me an incredible opportunity to immerse myself in the clinical and research program at the National Institutes of Health (NIH) Dermatology Branch. My mentor, Dr. Heidi Kong designed a comprehensive schedule for exposure to both the incredible dermatology consultation service at the NIH, as well as the research enterprise for rigorous skin microbiome research.

I had the invaluable opportunity to work closely with Dr. Heidi Kong's research team, experts in the field of skin microbiome research. Over the course of my rotation, I gained comprehensive insights into several aspects of this field. I observed how to establish workflows and infrastructures essential for the rigorous collection of skin microbiome specimens. I learned various techniques and best practices vital for maintaining the integrity of skin microbial samples. I learned optimal skin microbial specimen processing protocols for genomic DNA extraction as well as pipelines for analysis. I also participated in joint journal clubs and lab meetings with Dr. Julie Segre's lab, a leading expert in the skin microbiome field. As a physician-scientist who is specifically interested in studying the skin immune: microbe interface, this enlightening experience was invaluable in my career development.

The clinical exposure to the Dermatology consultation service at the NIH has been one of the most rewarding experiences of my dermatology residency. I joined the Dermatology Consult team led by either Drs. Edward Cowen, Leslie Castelo-Soccio, or Dr. Heidi Kong to see a variety of rare diseases. These cases included primary immunodeficiencies (STAT3, DOCK8, SAVI, ADA2, WHIM), tumor disposition syndromes (BAP1), cutaneous reactions from novel targeted chemotherapies, immunotherapies, and others. Most of these patients were enrolled in clinical trials receiving novel therapies for their syndromes by a multidisciplinary team of experts including infectious disease, pediatrics, hematology, and immunology, to name a few. A critical skill I developed during this month was recognizing when the constellation of a patient's skin findings should raise alarms for a potential syndrome or genetic deficiency. This was the case for a variety of the patients I observed: extensive warts vs. WHIM syndrome or DOCK8 deficiency, atypical eczema vs. STAT3 or DOCK8 deficiency, and others. Furthermore, as a physician-scientist, I was inspired by the seamless integration of clinical care and basic/translational science at the NIH whereby almost all clinicians were also partners in disease pathogenesis characterization and investigation.

This MDS experience, and the new mentors I've gained in Drs. Kong, Castelo-Soccio, and Segre at the NIH will undoubtedly shape my career. I am deeply grateful to the MDS and to Dr. Kong for this exceptional opportunity to help me define my dermatology research career.