GLOBAL RESEARCH EXCHANGE 2024

Hopel

DIN STD.

"The Global Research Exchange was not just an opportunity to engage with rheumatologists from around the world; it was a powerful reminder that collaboration, innovation, and diverse perspectives are essential to advancing science and improving lives globally."

date 20, November 2024

Prepared By: Fayanne Patricia K. Lim

GLOBAL RESEARCH EXCHANGE 2024



Participating in the **Global Research Exchange** program was an enriching experience that significantly expanded professional knowledge and broadened perspective. This unique program brought together 15 research exchange scholars—10 from the European Alliance of Associations for Rheumatology (EULAR) and 5 from the Asia Pacific League of Associations for Rheumatology (APLAR). The participants were primarily PhD candidates and researchers, many of whom were also attending physicians specializing in rheumatology. Their research interests encompassed a broad spectrum of topics, including myositis, vasculitis, arthritis, and RA-related interstitial lung disease.



GLOBAL RESEARCH EXCHANGE 2024



The exchange began with each scholar presenting their individual research, offering a valuable opportunity for the sharing of ideas, constructive feedback, and collaboration. It was inspiring to see the innovative approaches that peers from around the world had taken to address the challenges in rheumatology. The discussions that followed highlighted the power of collective knowledge and diverse perspectives in advancing scientific fostering progress and global collaboration.

The visit to the National Institutes of Health (NIH) was a memorable part of the program. Touring its world-class facilities was both inspiring and motivating, as it emphasized the critical role that state-ofthe-art resources play in advancing groundbreaking research. During the tour, we were moved by a deeply meaningful of the NIH's culture-artwork aspect created by patients. These vibrant tile pieces, crafted by patients before returning home after completing their treatment, added a personal and human touch to the scientific environment. Each tile told a story of resilience, hope, and gratitude, serving as a reminder of the profound impact that research medicine have on individual lives. and

APLAR ACREXCHANGE GLOBAL RESEARCH EXCHANGE 2024

The theme of **"Hope Flows from One to Another"** resonated deeply, as the artwork symbolized how each patient's journey and resilience continue to inspire hope that spreads across communities.





The program featured lectures by distinguished experts who their research and shared inspiring journeys. Dr. Mariana Kaplan, from National the Institute of Arthritis and Musculoskeletal and Skin Diseases (NIAMS). warmly welcomed

participants, setting the tone for a collaborative experience. Keynote speaker **Dr. Dan Kastner**, from the National Human Genome Research Institute (NHGRI), delivered a lecture on autoinflammatory diseases, highlighting his three decades of pioneering work. He is renowned for discovering the gene for familial Mediterranean fever (FMF) in 1997, identifying mutations in NLRP3 linked to neonatal-onset multisystem inflammatory diseases. His research has revolutionized understanding and treatment, including developing therapies for NOMID.

APLAR ACREXCHANGE GLOBAL RESEARCH EXCHANGE

2024



Dr. **Peter Grayson,** from NIAMS, delivered a compelling lecture on VEXAS syndrome and shared the fascinating story of his recent discovery involving a rare form of vasculitis. He described patients with a unique phenotype

marked by multiple medium-sized artery aneurysms in uncommon locations, such as the axillary and coronary arteries. Using single-cell RNA sequencing and TCR clonality analysis, Dr. Grayson's team identified a rare subset of monoclonal Th2 cells with high GATA3 expression as the likely drivers of the disease. After years of research, they uncovered a cryptic mutation just three weeks ago, providing transformative insights into the molecular mechanisms of vasculitis.

In the following session, Dr. John O'Shea, coof the NIH/Oxford/Cambridge founder Program in Biomedical Science and mentor **NIH-UPENN** through the Immunology Program, delivered an equally captivating keynote on JAK inhibitors (Jakinibs). He recounted his journey in discovering JAK3 and securing its patent, emphasizing the transformative impact on modern medicine. Similarly, Dr. Andrew Mammen shared his in myositis, highlighting his expertise discovery of anti-HMG-CoA antibodies and the development and patenting of the anti-HMG-CoA assay.

Smaller mentoring sessions with Drs. Mariana Kaplan, Andrew Mammen, and John O'Shea allowed for a deeper exploration of their



professional journeys and personal insights. Dr. O'Shea, for instance, shared his passion for music and his role in a rock band of NIH scientists, the Affordable Rock 'n' Roll Act (ARRA), showcasing how scientific achievements can coexist with personal pursuits.

APLAR ACR EXCHANGE GLOBAL RESEARCH EXCHANGE 2024

The program was further enriched by **Dr. Bernardo Pons-Estel,** a distinguished authority on systemic lupus erythematosus (SLE), and **Dr. Maurizio Cutolo,** whose pioneering work in nailfold capillaroscopy whose groundbreaking contributions have revolutionized the diagnosis of autoimmune diseases.

The program offered invaluable opportunities for mentorship and networking. During lunch sessions, Drs. Robert Colbert, Peter Grayson, Sarfaraz Hasni, and lago Pinal-Fernandez shared their experiences at the NIH, providing practical advice on navigating research careers. Their discussions candid about the challenges and opportunities in the field were both insightful and



Beyond the academic and professional the program highlighted aspects, the significance of cultural exchange. Interacting with participants from various countries emphasized diverse approaches the to research and the importance of embracing cultural differences. The Global Research Exchange program was an eye-opening journey of learning, mentorship, and collaboration. The knowledge and insights gained from lectures, discussions, and personal interactions will

GLOBAL RESEARCH EXCHANGE 2024



610





undoubtedly shape future endeavors, reinforcing a commitment to advancing research. This also experience underscored value of global the perspectives and collaboration in addressing the complexities of modern medicine. By the program's conclusion, meaningful friendships and professional connections were established, paving way potential future the for collaborations.

