Anthi's Post

**Name**: Suganthinie Velagala, MBBS
**Hometown**: Born in Jaffna, Sri Lanka; raised in London, UK
**Specialty and Current Institution**: Neonatal-perinatal Medicine, Yale New Haven Children's Hospital

**What got you interested in your specialty?**

My journey into neonatal-perinatal medicine began during my pediatric residency, where I witnessed the remarkable resilience of a preterm infant with severe pulmonary hypoplasia, who defied the odds and thrived. This experience drew me to the field of neonatology, where I would have the opportunity to provide specialized care to fragile neonates and support their families during difficult times. Neonatology is intellectually stimulating, focusing on the unique needs of the tiniest patients while encompassing all organ systems and pathologies. Building long-term relationships with NICU families is particularly rewarding. Most importantly, it's an honor to care for these precious babies and witness their growth and development during their most vulnerable period. Seeing them thrive and go home healthy with their families is incredibly rewarding.

**What type of research are you doing?**

My primary research interests focus on placental and fetal immunity, with a specific emphasis on understanding the mechanisms of sexually dimorphic clinical outcomes in the Neonatal Intensive Care Unit. Using advanced single-cell techniques like imaging mass cytometry, I aim to understand the dysregulation of innate and adaptive immunity in fetal placental tissue and explore sex-specific outcomes.
My research aims to learn more about how the fetal immune system behaves and its role in preterm birth. By expanding our knowledge in this area, I hope the results could transform how we care for preterm babies. Ultimately, I want to find ways to improve clinical immune outcomes in this vulnerable population.

**Where do you see yourself in 5 years?**

I plan to use my training in clinical neonatal medicine, medical education, and research skills to make meaningful contributions to the field. Although my ultimate goal is to establish myself in academic medicine and pursue career development awards to support my research further, my current status as an international medical graduate on a visa waiver requires an initial focus on a more clinically oriented role. During this time, I intend to explore my interest in immune-mediated clinical outcomes further, such as late-onset neonatal sepsis, antimicrobial stewardship, and the utilization of AI tools to enhance predictive capabilities for diagnosing sepsis.

**How has SPR helped shape your journey?**

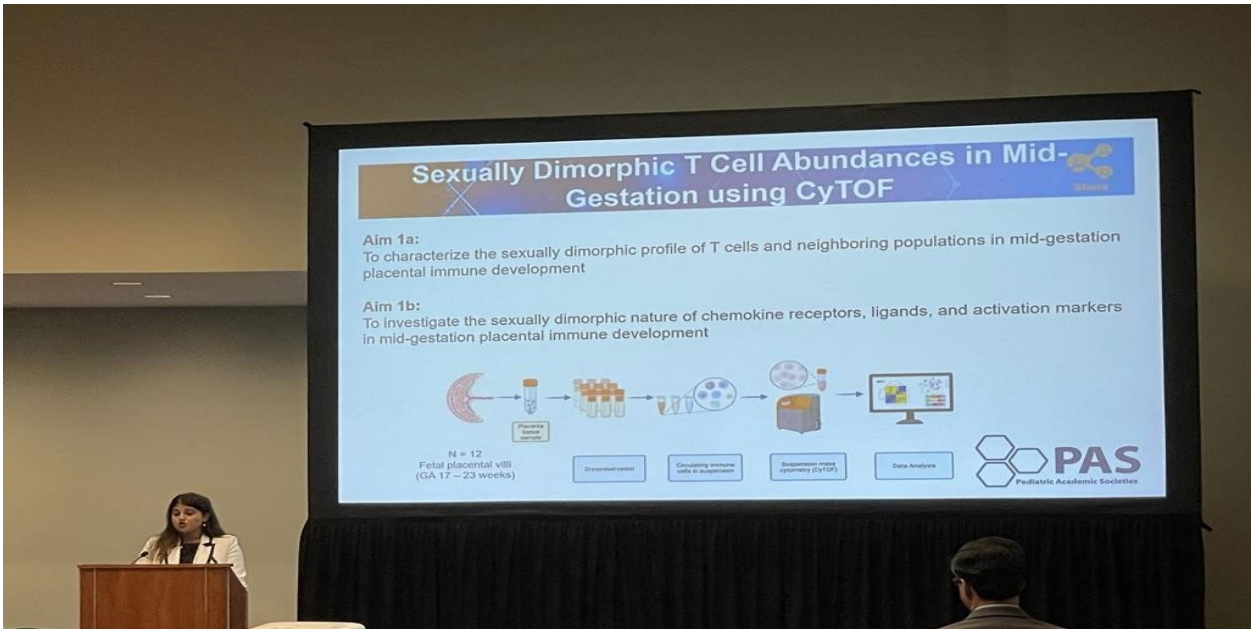
As a member of the SPR junior council, I've learned about various resources designed for trainees and junior faculty within the organization. These include mentoring programs, a grant writing course, leadership opportunities, and professional networking initiatives. I also want to highlight the importance of the Pediatric Research Journal, as a key platform for connecting senior and junior members. Additionally, SPR Perspectives provides briefs on cutting-edge research methods and content, serving as a valuable resource for knowledge exchange across different career stages.

**What do you do in your free time? Hobbies?**

I enjoy spending time outdoors in my free time, particularly hiking and exploring national parks. Additionally, I have a passion for classical dance and have trained in Bharatanatyam, a traditional South Indian classical dance form. Whenever possible, I continue to practice Bharatanatyam. I also enjoy participating in Zumba classes for fun and fitness.

**Social media platforms:**

- **Twitter:** @Anthi_Velagala


Sexually Dimorphic T Cell Abundances in Mid-Gestation using CyTOF
Aim 1a:
To characterize the sexually dimorphic profile of T cells and neighboring populations in mid-gestation placental immune development
Aim 1b:
To investigate the sexually dimorphic nature of chemokine receptors, ligands, and activation markers in mid-gestation placental immune development
N = 12
Fetal placental villi
(GA 17 – 23 weeks)
Cryopreservation
Data Analysis
PAS
Pediatric Academic Societies