THURSDAY, SEPTEMBER 19, 2024

8:00AM – Registration Check In

8:30AM – Opening Remarks from Prof. Minerva Thame, Dean-FMS, Jamaica
8:40AM – Remarks from RADM Richard Childs, MD

SESSION ONE : SCREENING FOR SICKLE CELL DISEASE
Chair: Monika Asnani, MBBS, DM, PhD

8:45-9:15am Point of Care Testing: Promise and Role
Daniel Dexter, MD
*Imperial College Healthcare NHS Trust*

**Newborn Screening Updates**

9:15-9:25am Caribbean
Jennifer Knight-Madden, MBBS, PhD
*The University of the West Indies*

9:25-9:35am Africa
Obiageli Nnodu, MD
*University of Abuja*

9:35-9:45am Well-Resourced Countries: Europe
Raffaela Colombatti, MD, PhD
*University of Padova*

9:45-9:55am Low- or Middle-Income Countries (LMIC): India, Brazil
Ana Cristina Silva-Pinto, MD, PhD
*University of Sao Paulo*

9:55-10:05am Discussion and questions

10:05-10:15am BREAK
SESSION TWO: COMPLEXITIES OF THE COMMON COMPLICATIONS IN SCD  
Chair: Zachary Ramsay, MBBS, MSc

10:15-10:45am Insomnia and Sleep Health
Monika Haack, PhD
Harvard University

10:45-11:15am Pain: Many Mechanisms and Mysteries
Cheryl Stucky, PhD
Medical College of Wisconsin

11:15-11:45am Managing Pain Beyond Opioids: Cannabinoids, Buprenorphine, Ketamine
Deepika Darbari, MD
Children’s National

11:45-12:45pm LUNCH

SESSION THREE: CLINICAL TRANSLATION OF BIOENGINEERING AND BIOPHYSICS IN SCD  
Chair: Swee Lay Thein, MD

12:45-1:15pm Clinical Translation of Engineered Microsystems to Better Understand Blood Flow in SCD
Wilbur A. Lam, MD, PhD
Emory

1:15-1:45pm Dynamic Interplay Between Biomechanical and Biochemical Stimuli in SCD
Manu O Platt, PhD
NIBIB

1:45-2:15pm Role of RBC eNOS in Optimizing RBC Phenotype During Circulatory Transit
Allan Doctor, MD
University of Maryland School of Medicine

2:15-2:30pm BREAK

SESSION FOUR: MECHANISM-BASED THERAPIES FOR HEMOGLOBINOPATHIES  
Chair: Haydar Frangoul, MD, MS

2:30-3:00pm Induction of Fetal Hemoglobin: Genetic Approaches
Haydar Frangoul, MD, MS
Children's Hospital at TriStar Centennial
3:00-3:30pm  **Induction of Fetal Hemoglobin: Small Molecules and Pharmacological Approaches**
Scott Peslak, MD, PhD  
*University of Pennsylvania*

3:30-4:00pm  **Increase Anti-Sickling Potential- Genetic approaches**
John Tisdale, MD  
*NHLBI*

4:00-4:15pm  BREAK

4:15-4:45pm  **Increase Anti-Sickling Potential- Pharmacological Approaches**
Swee Lay Thein, MD  
*NHLBI*

4:45-5:15pm  **Emergence of Genetic Therapies for SCD: A curative treatment or treatment with curative intent?**
Edward Benz Jr., MD  
*Dana-Farber Cancer Institute*

5:15-5:25pm  Discussion and Questions

5:25-5:30pm  Day One Closing Remarks

5:30pm  End of Day One

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**FRIDAY, SEPTEMBER 20, 2024**

*8:00AM – Registration Check In*

*8:30AM – Opening remarks from Prof. Marshall Tulloch-Reid, Director, CAIHR, Jamaica*

**SESSION ONE : HYDROXYUREA- A THERAPEUTIC STALWART IN SCD**
*Chair: Lesley King, MBBS, MRCP*

8:40-9:10am  **Revisiting Hydroxyurea Use in SCD (dosing, use in pregnancy, etc.,)**
Russell Ware, MD, PhD  
*Cincinnati Children’s Hospital*

9:10-9:40am  **Improving Hydroxyurea Adherence: Understanding Barriers and Enablers**
Monika Asnani, MBBS, DM, PhD
9:40-10:05am **Clinical and Hematopoietic Profiles Associated with Sustained Response**  
Luisanna Sanchez, MD  
*Indiana University Health*

10:05-10:35am **Re-examining the Utility of Absolute Neutrophil Count as MTD in the Context of Duffy Status**  
Lauren Merz, MD, MSC  
*Brigham and Women’s Hospital*

10:35-10:45am BREAK

**SESSION TWO: ONGOING CHALLENGES IN THE MANAGEMENT OF SCD COMPLICATIONS**  
*Chair: Angela Rankine-Mullings, MBBS, MRCP*

10:45-11:25am **Fertility and Pregnancy**  
Lydia Pecker, MD  
*Johns Hopkins University*

11:25-11:50am **Cardiac Disease**  
Thomas d'Humières, MD, PhD  
*Henri Mondor Hospital, Assistance Publique Hôpitaux de Paris*

11:50-12:15pm **Renal Disease**  
Lori Fisher, MD  
*The University of the West Indies*

12:15-12:40pm **Alloimmunization and Hyperhemolysis**  
France Pirenne, MD  
*University Paris Est Créteil*

12:40-1:40pm LUNCH

**SESSION THREE: CURATIVE THERAPIES**  
*Chair: John Tisdale, MD*

1:40-2:05pm **The 5 Most Frequently Asked Questions**  
Wynona Coles, MPH, CCRP  
*NHLBI*

2:05-2:30pm **How We Measure Therapeutic Efficacy in SCD**  
Improvements in Health-Related Quality of Life (to Include Pain)
2:30-2:55pm  Cerebral Hemodynamics  
Melanie Fields, MD, MSCI  
Washington University- St. Louis

2:55-3:20pm  Cardio-Pulmonary Function  
Parker Ruhl, MD, MHS  
NIAID

3:20:3-30pm  BREAK

SESSION FOUR: MUTATIONAL/VARIANT SCREENING TO IMPROVE OUTCOME OF CURATIVE THERAPIES IN SCD
Chair: Swee Lay Thein

3:30-3:55pm  Screening for Clonal Hematopoiesis  
Lachelle Weeks, MD, PhD  
Dana-Farber Cancer Institute

3:55-4:20pm  Screening for Alpha Thalassemia  
John Piercley, MSc  
Bluebird Bio

PANEL: Where Are We Headed in the Treatment of SCD?  
Chair: Jennifer Knight-Madden, MBBS, PhD

4:20-4:40pm  Curative Therapies  
Mark Walters, MD  
University of California, San Francisco

4:40-5:00pm  More Disease-modifying Small Molecules (to include update on current therapies)  
Jane Little, MD  
UNC School of Medicine  
Marilyn Telen, MD  
Duke University School of Medicine

5:00-5:15pm  Perspective from patients

5:15-5:30pm  Panel Discussion
5:30pm  Conference closing remarks