



FIRST INTERNATIONAL SYMPOSIUM ON  
**PEDIATRIC RENOVASCULAR  
HYPERTENSION**

**FINAL PROGRAM**

**Sunday**

**18:00-21:00: Welcome Reception – Gandy Dance** (*Invited Guests*)

**Monday**

***(07:00-07:45 Breakfast)***

**07:45 Welcome and Introduction – Dawn Coleman and Rulan Parekh**

**08:00 Opening Comments – Charles Burant**

**08:15 - 10:45: Scientific Session 1 – Pediatric Renovascular Hypertension: Background and Scientific Research Efforts**

*(Moderator: S Ganesh + J Stanley)*

1. Mendelian Forms of Renovascular Disease (20min) – Kevin Meyers, Children’s Hospital of Philadelphia, University of Pennsylvania
2. A Histopathologic Review of Renal Artery Stenosis (15min) – James Stanley, CS Mott Children’s Hospital, University of Michigan
3. Arteriopathy in NF1: A cellular and molecular overview (30 min) – David Gutmann, Washington University School of Medicine
4. Gene Discovery (15min) – Santhi Ganesh, University of Michigan
5. Epidemiology, Phenotyping and Cohort Development (12min) – Rulan Parekh, The Hospital for Sick Children, University of Toronto
6. Whole Exome Sequencing in Midaortic Syndrome (12min) – Jillian Warejko, Yale New Haven Children’s Hospital, Yale University School of Medicine
7. Genetic Causes of Renovascular Hypertension (12min) – Daan Viering, Radboud University Medical Centre

***(10:45 – 11:00 Coffee Break)***

**11:00-12:00: Keynote– Harry C. Dietz III**, Director of the William S. Smilow Center for Marfan Syndrome, Johns Hopkins University Medical School

***(12:00-13:00 Lunch)***



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**13:00 – 15:00: Scientific Session 2 – Pediatric Renovascular Hypertension: General Considerations**

*(Moderators: K Tullus + Z Modi)*

1. Clinical Manifestations and Natural History of Pediatric Renovascular Hypertension (30min) – Kjell Tullus, Great Ormond Street Hospital for Children
2. A Systematic Review of Midaortic Syndrome in Children (20min) - Rulan Parekh, The Hospital for Sick Children, University of Toronto
3. Syndrome Diseases and Indications for Patient and Family Genetic Screening – Do Results Impact Management (20min) – Santhi Ganesh, University of Michigan
4. Should Pediatric Renal Artery Stenosis/Midaortic Syndrome be Qualified as ‘Pediatric FMD’? Differences Between the Pediatric and Adult Presentation of FMD: Results from the US Registry (20min) – Kevin Meyers, Children’s Hospital of Philadelphia, University of Pennsylvania
5. Multi-disciplinary Care of the Complex Renovascular Hypertension Patient (15min) – Michael Ferguson, Boston Children’s Hospital, Harvard Medical School

***(15:00-15:20 Coffee Break)***

**15:30 – 16:30: Panel - Building a Multi-Disciplinary Program** (M Ferguson, J Flynn, K Meyers, K Tullus, W Sandmann)

*(Moderator: D Coleman + R Parekh)*

**17:00 – 20:00: Working Groups A/B** *(By Invitation)*

**(A) Diagnostics of Pediatric Renovascular Hypertension’** – Discussion of existing diagnostic practice patterns applied to pediatric patients with RVH with a focus on diagnosis, additional screening and surveillance imaging. This working group is charged to identify current best practices and prioritize knowledge gaps for future study. **Invited members:** *K Cho, D Kershaw, \*J Amaral, A Cahill, J Dillman, L Mertens, M Khaja, E Monroe, D Williams, G Chaudry, S Radhakrishnan*

**(B) Large Scale Phenotyping and Longitudinal Follow-up of Pediatric Renovascular HTN.** **Members:** *\*D Coleman, J Stanley, M Ferguson, J Flynn, \*K Meyers, R Parekh, W Sandmann, K Tullus, Z Modi, J Samuels, G Chaudry, M Matsuda Abedini*

*(\* denotes working group leads)*



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**Tuesday**

**07:30-8:00 – Breakfast**

**08:00-09:45: Scientific Symposium III – Imaging of Pediatric Renovascular Hypertension**

*(Moderators: J Amaral + M Khaja)*

1. The Role of Duplex Ultrasound for Diagnosis and Surveillance (15min) – Jonathan Dillman, Cincinnati Children’s Hospital Medical Center, University of Cincinnati
2. Cross-Sectional Imaging Considerations: Balancing the Risks of Cross-Sectional Imaging (CTA v. MRA) (15min) – Hansel Otero, Children’s Hospital of Philadelphia, University of Pennsylvania
3. Role of Diagnostic Angiography and Cutting Balloon Angioplasty for Renovascular Hypertension (15min) – Anne Marie Cahill, Children’s Hospital of Philadelphia, University of Pennsylvania
4. Fetal and neonatal imaging of aortic and renovascular hypertension (15min) – Rajesh Krishnamurthy, Nationwide Children’s Hospital, The Ohio State University
5. Intravenous Digital Subtracted Angiography (15min) – Kyung Cho, CS Mott Children’s Hospital, University of Michigan
6. Computational Imaging of Fluid-Structure Interactions and Hemodynamics in Assessing Abdominal Aortic Coarctation and Renal Stenotic Disease (15min) – Alberto Figueroa, University of Michigan

***(09:45 – 10:00 Coffee Break)***

**10:00 – 1200: Scientific Session IV – Medical Management and Surveillance of Pediatric Renovascular Hypertension**

*(Moderators: M Ferguson + C Hanevold)*

1. What Qualifies as a Medical Treatment Failure: Indications for Revascularization (20min) – David Kershaw, CS Mott Children’s Hospital, University of Michigan
2. Current Guidelines for Medical Therapy and Surveillance (20min) – Joseph Flynn, Seattle Children’s Hospital, University of Washington
3. Management of Concurrent Neurovascular Disease (15min) - Mahendra Moharir, The Hospital for Sick Children, University of Toronto
4. Management of Neurovascular Complications (15min) – Michael Rivkin, Boston Children’s Hospital, Harvard Medical School
5. Management of Concurrent Cardiopulmonary Disease and Complications (20min) – Luc Mertens, The Hospital for Sick Children, University of Toronto



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6. Long-term Developmental and Cognitive Risks of Hypertension (15min) – Marc Lande, University of Rochester Medical Center

**(12:00-13:00 Lunch)**

**13:00 – 16:30: Scientific Session V – Revascularization Options for Pediatric Renovascular Hypertension**

*(Moderators: K Meyers + J Eliason)*

1. Endovascular Interventions in Pediatric Renovascular Hypertension: Indications and Limitations (20min) – Joao Amaral, The Hospital for Sick Children, University of Toronto
2. Emerging Endovascular Strategies for Diagnosis and Treatment (20min) – Diego Porras, Boston Children’s Hospital, Harvard Medical School
3. Interventional Treatment Considerations in neonates/infants (20min) – Premal Patel, Great Ormond Street Hospital for Children
4. Open Surgical Revascularization of Pediatric Renovascular Hypertension (20min) – Dawn Coleman, CS Mott Children’s Hospital, University of Michigan

**(14:30-14:45 Coffee)**

5. Novel Surgical Treatments (20min) – Heung Bae Kim, Boston Children’s Hospital, Harvard Medical School
6. Renal Auto-Transplantation (15min) – Armando Lorenzo, The Hospital for Sick Children, University of Toronto
7. Remedial / Salvage Surgical Procedures for Treatment Failures (20min) – Jonathan Eliason, CS Mott Children’s Hospital, University of Michigan
8. Treatment of Segmental Disease in Pediatric Renal Artery Disease: The role for partial nephrectomy (15min) – John Park, CS Mott Children’s Hospital, University of Michigan

**16:30-16:45: Closing Remarks – D Coleman and R Parekh**

**17:00 - 20:00: Working Groups C/D (By Invitation)**

**(C) The Genetics of Pediatric Renovascular Hypertension** – The state of the genetics of pediatric RVH and ongoing translational efforts. This working group will specifically be charged to identify knowledge gaps and opportunities for future study/collaboration. **Members:** \*S Ganesh, J Stanley, \*R Parekh, D Viering, J Warejko, D Stein, D Williams

**(D) Treatment of Pediatric Renovascular Hypertension** - Discussion of the existing practice patterns (medical, open surgical, endovascular) applied to pediatric patients with renovascular hypertension across the globe. This working group is charged to identify current best practices



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and prioritize knowledge gaps for future study. **Members:** *D Coleman, J Eliason, A Cahill, \*M Ferguson, ~~H Kim~~, A Lorenzo, K Meyers, D Porras, W Sandmann, \*K Tullus, M Khaja, M Moursi, G Shivaram, A Duncan, C Hanevold, J Amaral*

*(\* denotes working group leads)*