Developmental Renal Malformations, Oligo/Anhydramnios: Pathophysiology and Clinical Aspects
August 8, 2016

Workshop Goals

1. Describe the biology of amniotic fluid production/absorption and regulation
2. Describe the epidemiology of renal malformations in relation to oligo/anhydramnios
3. Describe how renal development correlates with prenatal renal ultrasound findings (e.g. Can early ultrasound diagnose evolving urinary tract obstruction?)
4. Understand what fetal/neonatal surgical interventions and other management strategies are available for prenatally identified renal anomalies associated with oligo/anhydramnios
5. Develop approaches to evidence-based counseling of prospective parents about expected renal outcomes

Workshop
Monday, August 8, 2016

8:00 a.m.  Registration

8:15 a.m.  Welcome and Opening Remarks
Dr. Cathy Spong, Acting Director, NICHD

8:25 a.m.  Meeting Objectives
Tonse Raju, Pregnancy and Perinatology Branch (PPB), Division of Extramural Research (DER), NICHD

8:30 a.m.  Basic Science
John Ilekis, PPB, DER, NICHD
8:30 a.m.  Physiology of amniotic fluid volume regulation
Robert Brace, Oregon Health and Science University (OHSU)
8:50 a.m.  Cellular and molecular pathways regulating trans-amnion
          Cecilia Cheung, OHSU

9:10 a.m.  Questions and Answers

9:25 a.m.  Renal and urogenital development and their developmental abnormalities
          Carlton Bates, University of Pittsburgh School of Medicine

9:45 a.m.  Regulation of fetal swallowing
          Michel Ross, Geffen School of Medicine at UCLA/ Fielding School of Public Health at UCLA

10:05 a.m. Questions and Answers

10:20 a.m. Epidemiology and Genetics
          Rebekah Rasooly, National Institute of Diabetes and Digestive and Kidney Disorders (NIDDK)

10:20 a.m. Epidemiology of renal malformations
          Patrick Brophy, University of Iowa Children’s Hospital

10:40 a.m. Genetics of congenital anomalies of the kidney and urinary tract
          Friedhelm Hildebrandt, Harvard Medical School/Boston Children’s Hospital

11:00 a.m. Questions and Answers

11:15 A.M. BREAK

11:20 a.m. Diagnostic Approaches
          Uma Reddy, PPB, DER, NICHD

11:20 a.m. Correlation of prenatal imaging of kidney malformations as basis for intervention, including recent experience with pediatric outcomes
          Jacqueline Ho, Children’s Hospital of Pittsburgh/University of Pittsburgh Medical Center

11:40 a.m. Role of prenatal MRI of the kidney to define its architecture and describe the nature and extent of malformations
          Deborah Levine, Harvard Medical School/Beth Israel Deaconess Medical Center

12:00 p.m. Questions and Answers
12:15 P.M.  
LUNCH BREAK

1:00 p.m.  Maternal/Fetal Interventions  
Menachem Miodovnik, NICHD

1:00 p.m.  Invasive maternal interventions for prenatally identified renal anomalies associated with severe oligo/anhydramnios  
Bill Polzin, Cincinnati Fetal Center/Good Samaritan Hospital

1:20 p.m.  Invasive fetal interventions for urogenital anomalies (diversion of urinary tract obstruction)  
Nicholas Holmes, Rady Children’s Hospital-San Diego

1:40 p.m.  Questions and Answers

1:55 p.m.  Postnatal Management and Counseling  
Marva Moxey-Mims, NIDDK

1:55 p.m.  Postnatal management and long-term outcomes of infants with abnormal kidneys identified prenatally  
Annabelle Chua, Duke University

2:15 p.m.  Challenges in prenatal counseling  
Ann Guillot, University of Vermont College of Medicine

2:35 p.m.  Ethical framework for obstetric, perinatal, and neonatal decision making  
Frank Chervenak, Weill Cornell Medical College and New York-Presbyterian Hospital

2:55 p.m.  Questions and Answers

3:10 P.M.  BREAK

3:25 p.m.  Summary and Conclusions  
Tonse Raju, NICHD  
Marva Moxey-Mims, NIDDK

4:30 p.m.  Adjourn