

**3<sup>rd</sup> International Fetal Heart Symposium - Maryland**  
**Resolving Myths of the Heart–Brain–Placenta Axis**  
**SEE IT, SAY IT, SORT IT**

**Schedule: Wednesday, May 1, 2024**

7:30 - 8:00 | Registration & Breakfast

**DAY 1: MORNING SESSION**

**Moderators:** Irina Burd, MD, PhD / Thomas Chin, MD

8:00 - 8:10 | Welcome by Irina Burd, MD, PhD

8:10 - 8:30 | Clinical Importance of Understanding Cardiac Embryology  
Presenter: Orhan Uzun, MD, FRCP

8:30 - 8:50 | Cardiac Screening or Fetal Echocardiography: Who Needs What?  
Presenter: Shifa Turan, MD, RDMS

8:50 - 9:20 | How to Examine the Fetal Heart: An Interactive Demonstration  
Presenter: Orhan Uzun, MD, FRCP

9:20 - 9:40 | First Trimester Fetal Heart Examination in the NIPT Era – Why Should We Do It?  
Presenter: Shifa Turan, MD, RDMS

9:40 - 10:00 | Toolbox for the Segmental Cardiac Evaluation: Making It Easier and More Practical  
Presenter: Lindsey Seger, BS, RDMS

10:00 - 10:20 | The Role of Artificial Intelligence in Cardiac Screening  
Presenter: Fatima Crispi, MD, PhD

10:20 - 10:35 Q&A and Coffee Break

**Segmental Review of Cardiac Malformations Part I**

**Moderators:** Alicia Chaves, MD / Fatima Crispi, MD, PhD

10:35 - 11:10 | Four Chamber Abnormalities – Left-Sided  
Presenter: Orhan Uzun, MD, FRCP

- Mitral Stenosis/Atresia/HPLH
- Aortic Stenosis/Critical Aortic Stenosis

11:10 - 12:05 | Four Chamber Abnormalities – Right-Sided  
Presenter: Orhan Uzun, MD, FRCP

- Tricuspid Atresia/Pulmonary Atresia
- Tricuspid Dysplasia/Ebstein's Anomaly

12:05 - 12:30 | Most Common AVSD Types

Presenter: Orhan Uzun, MD, FRCP

12:30 – 12:40 Q&A

12:40-1:40 | LUNCH

### **Segmental Review of Cardiac Malformations Part II**

**Moderator:** Alicia Chaves, MD / Fatima Crispi, MD, PhD

1:40 - 2:30

- TOF
- DORV
- TGA

Presenter: Orhan Uzun, MD, FRCP

### **MIND THE GAP SERIES**

**Moderators:** Orhan Uzun, MD, FRCP / Shifa Turan, MD, RDMS

2:30 – 2:50 | TOF with Pulmonary Atresia vs. Truncus Arteriosus

Presenter: Fatima Crispi, MD, PhD

2:50 – 3:10 | Aortic Coarctation vs. Aortic Interruption

Presenter: Priya Nigam, MD

3:10 - 3:30 | Diverticulum vs. Aneurysms, Right Aortic Arch vs. Double Aortic Arch

Presenter: Alicia Chaves, MD

3:30 - 3:50 | Double Inlet Ventricle vs. AVSD with Large VSD

Presenter: Nick Pietris, MD

3:50 - 4:00 | Quiz

4:00 – 4:10 | Coffee Break

### **GENETIC SERIES**

**Moderators:** Amanda Higgs, MGC, CGC / Shifa Turan, MD

4:10 – 4:30 | The Genetic Counselling and Testing Algorithms in CHD

Presenter: Austin De Moss, MS, CGC

4:30– 4:50 | Hypoplastic Left Heart Syndrome and Related Genetic Syndromes

Presenter: Patrick Semensky, MGC, CGC

4:50- 5:10 | Conotruncal and Aortic Arch Anomalies and Genetic Syndromes

Presenter: Hannah Johnstonbaugh, MGC

5.10– 5:30 | The Role of WES in CHD - Where Are We?

Presenter: Patrick Semensky, MGC, CGC

5:30 - 5:40 | Q&A

5:45 | Adjourn

### **Program Schedule for Thursday, May 2, 2024**

7:30 - 8:00 | Registration & Breakfast

### **DAY 2: MORNING SESSION**

**Moderators:** Alicia Chaves, MD / Katherine Goetzinger, MD, MSCI

### **Arrhythmia Series:**

8:00 - 8:20 | Understanding Cardiac Conduction System Anatomy and Physiology

Presenter: Sudhir Vashist, MD

8:20 - 8:50 | Evaluating Abnormal Cardiac Rhythm Using Ultrasound

Presenter: Fatima Crispi, MD, PhD

8:50 - 9:20 | Common Types of Bradyarrhythmia: Diagnostic Clues

Presenter: Orhan Uzun, MD, FRCP

9:20 - 9:50 | Common Types of Tachyarrhythmia: Diagnostic Clues

Presenter: Orhan Uzun, MD, FRCP

9:50 - 10:10 | Q&A AND Coffee Break

### **Multidisciplinary Approach to Cases:**

10:10 - 10:50 | Case Presentations in Various Types of Bradyarrhythmia with Audience Participation

Presenter: Lindsey Seger, BS, RDMS

Expert Discussions by: Shifa Turan MD, RDMS; Fatima Crispi, MD, PhD; Orhan Uzun, MD, FRCP; Sudhir Vashist, MD; Alicia Chaves, MD

10:50 - 11:40 | Case Presentations on Different Types of Tachyarrhythmia with Audience Participation

Presenter: Lindsey Seger, BS, RDMS

Expert Discussions by: Fatima Crispi, MD, PhD; Orhan Uzun, MD, FRCP; Sudhir Vashist, MD; Alicia Chaves, MD

11:40 - 12:10 | Case Presentation – Long QT Syndromes with Audience Participation

Presenter: Lindsey Seger, BS, RDMS

Expert Discussions by: Fatima Crispi, MD, PhD; Orhan Uzun, MD, FRCP; Sudhir Vashist, MD; Alicia Chaves, MD

12:10 - 12:20 | Q&A

12:30 - 1:30 | Lunch

### **AFTERNOON SESSION**

**Moderators:** Sripriya Sundararajan, MD / Christopher Deatrck, MD

### **Multidisciplinary Approach to Single Ventricle Cases:**

1:30 - 2:00 | Roller-coaster Journey in Single Ventricle Cases – From Fetus to Fontan

Presenter: Shifa Turan, MD, RDMS

2:00 - 2:50 | Multidisciplinary Approach to Fetal and Postnatal Care for Hypoplastic Left Heart Syndrome

Presenter: Alicia Chaves, MD; Discussion by: Sripriya Sundararajan, MD; Christopher Deatrck, MD

2:50 - 3:10 | Developmental Outcomes of Single Ventricle Defects

Presenter: Deborah Badawi, MD

3:10 - 3:30 | Feeding Challenges in Single Ventricle Cases

Presenter: Sripriya Sundararajan, MD

3:30 - 4:00 | Q&A & Coffee Break

4:00 - 4:30 | Current Advances in Non-Surgical Approach Options in Critical Congenital Heart Defects

Presenter: Dave Bloom, MD

4:30 - 5:00 | Current Updates on Surgical Approach Options in Different Critical Congenital Defects

Presenter: Christopher Deatrck, MD

5:00 - 5:20 | Counseling in Complex Heart Defects: What to Say and What Not to Say

Presenters: Shifa Turan, MD, RDMS / Alicia Chaves, MD

5:20 - 5:30 | Q&A

### **5:30 Welcome Reception at UMB, SMC Campus Center:**

### **Program Schedule for Friday, May 3, 2024**

7:30 - 8:00 a.m. | Breakfast

## **DAY 3: MORNING SESSION**

**Moderators:** Irina Burd, MD, PhD / Jude Crino, MD

### **The Brain:**

8:00 - 8:20 | The Role of the Brain-Heart Axis: Genetic, Molecular, and Hemodynamic Interplay

Presenter: Ozhan Turan, MD, PhD

### **Brain Imaging:**

8:20 - 8:50 | How to Study the Fetal Brain (I): Neurosonography

Presenter: Magda Sanz Cortes, MD, PhD

8:50 - 9:10 | Fetal Brain MRI: Should We Add It to Our Assessment, and When?

Presenter: Sandrine Yazbek, MD

### **Heart-Brain Genetic Series:**

9:10 - 9:30 | Tuberous Sclerosis Complex

Presenter: Magda Sanz Cortes, MD, PhD

9:30 - 9:50 | CHARGE Syndrome: The Importance of Studying the Olfactory Sulci in TOF

Presenter: Fatima Crispi, MD, PhD

9:50 - 10:10 | Common Structural Brain Abnormalities in Different Genetic Syndromes

Presenter: Magda Sanz Cortes, MD, PhD

10:10 - 10:25 | Q&A & Coffee Break

### **Heart-Brain: Bidirectional Hemodynamic Interplay**

**Moderators:** Ozhan Turan, MD, PhD / Jude Crino, MD

10:25 - 11:10 | Brain Anomalies That Overload the Heart: Vein of Galen Aneurysm

Presenter: Fatima Crispi, MD, PhD

11:10 - 11:55 | CHD That Abnormally Perfuses the Brain: HLHS, TGA, CoA

Presenter: Catherine Limperopoulos, PhD

11:55 - 12:40 | Consensus on When/How to Study the Fetal Brain in CHD

Presenter: Catherine Limperopoulos, PhD

12:40 - 12:50 | Q&A

12:50 - 2:00 p.m. | Lunch

## **AFTERNOON SESSION**

### **The Placenta**

**Moderators:** Katherine Goetzinger, MD, MSCI / Jude Crino, MD

2:00 - 2:20 | The Role of the Placenta-Brain-Heart Axis: Genetic, Molecular, and Hemodynamic Interplay

Presenter: Fatima Crispi, MD, PhD

### **Placenta Imaging/Modeling:**

2:20 - 2:40 | Feto-Placental Doppler

Presenter: Ozhan Turan, MD, PhD

2:40 - 3:00 | What is the Role of Placental MRI? Should We Do It?

Presenter: Catherine Limperopoulos, PhD

3:00 - 3:35 | Computational Models of the Fetoplacental Circulation

Presenter: Fatima Crispi, MD, PhD

3:35 - 3:45 | Q&A & Coffee Break

### **Placenta-Heart-Brain Genetic Series**

**Moderators:** Amanda Higgs, MGC, CGC / Shifa Turan, MD, RDMS

3:45 - 4:10 | Genetic Syndromes Affecting Fetal Growth, Brain, and Heart

Presenter: Katherine Goetzinger, MD

### **Placenta-Heart-Brain: Hemodynamic Interplay**

**Moderators:** Ozhan Turan, MD, PhD / Katherine Goetzinger, MD, MSCI

4:10 - 4:30 | Placenta and CHD: Signs of Malperfusion in the Placenta and Brain; Why and How?

Presenter: Ozhan Turan, MD, PhD

4:30 - 4:50 | Placental Insufficiency (IUGR) Induces Fetal Cardiac Remodeling

Presenter: Fatima Crispi, MD, PhD

4:50 - 5:10 | Twin-to-Twin Transfusion Syndrome – The Impact on the Fetal Heart in Donor and Recipient

Presenter: Magda Sanz Cortes, MD, PhD

5:10 - 5:30 | Q&A

5:30 | Adjourn

## **Program Schedule for Saturday, May 4, 2024**

7:30 - 8:00 | Breakfast at the Center for Advanced Fetal Care

8:00 - 12:00 | Hands-on Practice Sessions

### **Hands-on Practice on Fetal Heart, Brain, and Placental Assessment**

Scheduled hands-on practice for fetal heart, brain, and placental assessment will be conducted. There will be eight groups, each composed of five trainees. These groups will rotate among eight different rooms, each dedicated to distinct case scenarios. In every room, an experienced instructor will be available to guide the learners in obtaining real-time images from live patients.