JULY 9  CAMERON DEZFULIAN, MD  
**CARDIAC AND BRAIN ISCHEMIA & REPERFUSION INJURY**  
Ischemia and reperfusion (IR) refers to abrupt loss and then restoration of blood flow which exposes the heart and brain to lack of metabolic substrates (oxygen, glucose, etc.) Both organs respond differently to this stress in an effort to adapt, and the injury that occurs during ischemia and reperfusion has similarities and key differences, which will be discussed in this lecture. The last part of the lecture will consist of a practical discussion of the common animal and cell culture models used to simulate IR experimentally.

JULY 16  GUY SALAMA, PhD  
**CARDIAC ION CHANNELS & RHYTHM CONTROL**  
This lecture will cover a number of topics important to Topics will include: “Ionic mechanisms underlying sex differences in arrhythmia risk,” and “How synchronous Ca2+ release from internal stores overcome the source-sink mismatch to trigger arrhythmias.”

JULY 23  MIO MANOLE, MD  
**CEREBRAL BLOOD FLOW MEASUREMENT**  
Topics will include: “Methods for in vivo cerebral blood flow assessment in a pediatric rat model,” and “Disturbances in cerebral blood flow and microcirculation after cardiac arrest.”

JULY 30  MARC SIMON, MD  
**CARDIAC CONTRACTILITY & REMODELING**  

DENNIS MCNAMARA, MD  
**CAREERS IN CARDIOVASCULAR RESEARCH AND MEDICINE**

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