**Master Class: Cardiovascular Physiology (Adult)**  
**Sunday, January 31, 2021**  
**9:00 A.M. – 1:00 P.M. Central Time**

Course Chair: Steven M. Hollenberg

**Course Description**  
This four-hour master class will cover basic principles of cardiac and vascular physiology. Physiologic principles and current data concerning the use of fluids and vasoactive agents in critically ill patients will also be addressed along with the technical aspects and clinical utility of tools commonly used to assess cardiac function, intravascular volume, and hemodynamic status.

**Learning Objectives**  
- Describe the basic principles of cardiac and vascular physiology  
- Elucidate physiologic principles and current data concerning the use of fluids and vasoactive agents in critically ill patients  
- Describe the technical aspects and clinical utility of tools commonly used to assess cardiac function, intravascular volume, and hemodynamic status

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<th>Time</th>
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| 9:00 a.m. – 9:05 a.m. | Welcome  
Steven M. Hollenberg                                                                 |
| 9:05 a.m. – 9:20 a.m. | Core Principles: Left Ventricular Systolic Function  
Keith R. Walley                                                              |
| 9:20 a.m. – 9:35 a.m. | Core Principles: Right Heart Function  
Cliff Greyson                                                            |
| 9:35 a.m. – 9:50 a.m. | Core Principles: Venous Return  
Steven M. Hollenberg                                                          |
| 9:50 a.m. – 10:05 a.m. | Core Principles: Heart-Lung Interactions and Effects of Positive Pressure  
Xavier Monnet                                                               |
| 10:05 a.m. – 10:25 a.m. | Questions and Panel Discussion  
Keith R. Walley, Cliff Greyson, Xavier Monnet                              |
| 10:25 a.m. – 10:35 a.m. | Break                                                                                  |
| 10:35 a.m. – 10:45 a.m. | Hemodynamic Assessment: Intravascular Volume and Volume Responsiveness  
Xavier Monnet                                                               |
| 10:45 a.m. – 11:05 a.m. | Hemodynamic Assessment: Diastolic Function  
Clyde Yancy                                                                  |
| 11:05 a.m. – 11:25 a.m. | Hemodynamic Assessment: Invasive Hemodynamic Monitoring  
Keith R. Walley                                                            |
| 11:25 a.m. – 11:40 a.m. | Hemodynamic Management: Fluid Resuscitation  
Xavier Monnet                                                               |
| 11:40 a.m. – 11:55 a.m. | Questions and Panel Discussion  
Clyde Yancy, Keith R. Walley, Xavier Monnet                                 |
| 11:55 a.m. – 12:10 p.m. | Hemodynamic Management: Vasoactive Medications  
Cliff Greyson                                                               |
| 12:10 a.m. – 12:25 p.m. | Hemodynamic Management: Inotropic Therapy  
Clyde Yancy                                                                  |
| 12:25 p.m. – 12:40 p.m. | Hemodynamic Management: Mechanical Circulatory Support  
Steven M. Hollenberg                                                     |
| 12:40 p.m. – 1:00 p.m. | Questions, Panel Discussion, and Course Evaluation  
All Faculty                                                               |
| 1:00 p.m. | Adjournment                                                                                  |