

### **Wednesday, 18 Sept 2019: The Basis**

- 9:30 – 10:00 Registration
- 10:00 – 10:10 Welcome and Introduction
- 10:10 – 11:20 Physiological Basis of Exercise Performance (Part 1+2)  
*Susan Ward*
- 11:20 – 11:35 Coffee break, Refreshments
- 11:35 – 12:30 Pathophysiology of Exercise Limitation  
*Piergiuseppe Agostoni*
- 12:30 – 13:30 Interactive tutorial sessions in small groups (Beginners, Intermediate, Advanced)
- 13:30 – 14:30 Lunch break
- 14:30 – 15:00 Conducting the clinical study: equipment, calibration, technical troubleshooting  
*Arno Schmidt-Trucksäss*
- 15:00 – 15:30 Protocols: Ramp Tests, Constant Work Rate Tests  
*Marshall Riley*
- 15:30 – 16:00 Normal values and their pitfalls  
*Alfred Hager*
- 16:00 – 16:30 Formatting exercise test results  
*Daniel Dumitrescu*
- 16:30 – 16:55 Coffee break, Refreshments
- 16:55 – 17:00 Group Photograph
- 17:00 – 17:30 The history of CPET - how have we got here?  
*Paul Older*
- 17:30 – 18:30 Key note lecture

### **Thursday, 19 Sept 2019**

#### ***Focus 1: The Heart, the Lung and the Lung Vessels***

- 8:30 – 9:00 Exercise Testing in Heart Failure  
*Piergiuseppe Agostoni*
- 9:00 – 9:30 Exercise Testing in Congenital Heart Disease  
*Alfred Hager*
- 9:30 – 10:00 Exercise Testing in Pulmonary Disease  
*Joachim Meyer*
- 10:00 – 10:30 Cardiac Output Measurements during exercise  
*Piergiuseppe Agostoni*
- 10:30 – 11:00 Coffee break, Refreshments
- 11:00 – 11:30 Pulmonary Hemodynamics during exercise  
*Gabor Kovacs*

- 11:30 – 12:00 Exercise Testing in pulmonary vascular disease  
*Daniel Dumitrescu*
- 12:00 – 12:30 Exercise Echocardiography  
*Philipp Douschan*
- 12:30 – 13:30 Workshop 1: Ramp exercise test
- 13:30 – 14:30 Lunch break

### **Focus 2: Surgery and Rehabilitation**

- 14:30 – 15:00 Exercise Testing for perioperative risk assessment  
*Denny Levett*
- 15:00 – 15:30 Pre- and rehabilitation concepts in malignant diseases  
*Sandy Jack*
- 15:30 – 16:00 Pulmonary rehabilitation and CPET  
*Ralf Zwick*
- 16:00 – 16:30 Coffee break, Refreshments
- 16:30 – 17:00 Cardiac rehabilitation and CPET  
*Piergiuseppe Agostoni*
- 17:00 – 18:00 Workshop 2: Constant workload test

### **Friday, 20 September 2019**

#### ***“Special Issues and Repetition”***

- 8:30 – 9:00 Gas Exchange Patterns in Metabolic Myopathies  
*Marshall Riley*
- 9:00 – 9:30 Exercise Testing in Children  
*Tim Takken*
- 9:30 – 10:00 Cardiopulmonary Adaptation to high altitude  
*Mike Grocott*
- 10:00 – 10:15 Coffee break, Refreshments
- 10:15 – 10:45 Usefulness of CPET in Athletes  
*Karin Vonbank*
- 10:45 – 11:15 Critical appraisal for the anaerobic threshold  
*Horst Olschewski*
- 11:15 – 12:15 Interactive tutorial sessions in small groups  
(Cardiac, Pulmonary, Pediatric/CHD, Preoperative)
- 12:15 – 12:30 General Assembly Meeting CPX International
- 12:30 – 13:30 Lunch break
- 13:30 – 14:45 Abstract Competition / Young Investigator Award  
*Susan Ward and Faculty*
- 14:45 – 15:00 Coffee break, Refreshments
- 15:00 – 16:15 Use of CPET in clinical practice: Clinical Cases and Case based self-examination  
*Daniel Dumitrescu and Faculty*
- 16:15 – 17:00 General Discussion, Certificate Award, Concluding Remarks