



## ISHLT-ESOT MCS REGIONAL ACADEMY, 13 November 2022, Prague, Czech Republic CORE COMPETENCIES IN MECHANICAL CIRCULATORY SUPPORT

### Scientific Program Committee

**Chair:** Stephan Ensminger, MD DPhil, University of Lübeck, Lübeck, Germany

**Co-Chair:** Martin Schweiger, MD, PD, FEBS (Transplantation), FABS, Children's Hospital Zürich, Zürich, Switzerland

### Faculty:

1. Alexander Bernhardt, MD, University Heart and Vascular Center Hamburg, Hamburg, Germany
2. Theo De By, MBA, PhD, Euromacs, Zuid-Holland, Netherlands
3. Gloria Färber, MD, PhD, University Hospital Jena, Jena, Germany
4. Buntaro Fujita, MD, University of Lübeck, Lübeck, Germany
5. Jamila Kremer, MD, University Hospital, Heidelberg, Germany
6. Anna Meyer, MD, University Hospital, Heidelberg, Germany
7. Luciano Potena, MD, PhD, Bologna University Hospital, Bologna, Italy
8. Hermann Reichenspurner, MD, PhD, University Hospital Hamburg-Eppendorf, Hamburg, Germany
9. Diyar Saeed, MD, PhD, Leipzig Heart Center, Leipzig, Germany
10. Thomas Schlöglhofer, MSc, Medical University of Vienna, Vienna, Austria
11. Jan Schmitto, MD, PhD, MBA, Hannover Medical School, Hannover, Germany
12. Paul Christian Schulze, MD, PhD, University Hospital Jena, Jena, Germany
13. Daniel Zimpfer, MD, MBA, Medical University of Vienna, Austria
14. Andreas Zuckermann, MD, Medical University of Vienna, Vienna, Austria

### Schedule at a Glance:

8:15 – 8:30	Welcome and Overview
8:30 – 9:45	SESSION 1: Career Pathways in VAD and MCS: Opportunities for the Next Generation!
9:45 – 10:00	COFFEE BREAK
10:00 – 11:30	SESSION 2: Starting Right
11:30 – 13:00	SESSION 3: Prepare for Success
13:00 – 14:00	LUNCH BREAK
14:00 – 15:15	SESSION 4: Pump It Up
15:15 – 15:30	COFFEE BREAK
15:30 – 16:45	SESSION 5: Clots, Bugs, and More
16:45 – 17:00	SUMMARY / CONCLUDING REMARKS / EVALUATION
17:00	ADJOURN

**ISHLT-ESOT MCS REGIONAL ACADEMY, 13 November 2022, Prague, Czech Republic  
CORE COMPETENCIES IN MECHANICAL CIRCULATORY SUPPORT**

**PROPOSED SCIENTIFIC PROGRAM SCHEDULE**

**8:15-8:30 (15 Mins)**

**Welcome and Overview**

Stephan Ensminger, MD, DPhil and Martin Schweiger, MD, PD

**8:30-9:45 (75 Mins)**

**SESSION 1: Career Pathways in VAD and MCS – Opportunities for the Next Generation!**

Moderators: Martin Schweiger, MD, PD and Stephan Ensminger, MD, DPhil

**8:30-8:45 (15 Mins)**

***Possibilities for Junior Doctors in MCS Surgery – My View***

Speaker: Hermann Reichensperner, MD, PhD, Hamburg, Germany

***Teaching/Discussion Points***

- a. Current Situation in MCS
- b. Possibilities for junior doctors in this field
- c. Exemplary curriculum

**8:45-9:00 (15 Mins)**

***Women in MCS Surgery – My View***

Speaker: Jamila Kremer, MD, Heidelberg, Germany

***Teaching/Discussion Points***

- a. Current situation for women in MCS
- b. Discrepancy Europe vs. USA
- c. Possibilities for female junior doctors in this field

**9:00-9:15 (15 Mins)**

***Possibilities for Junior Doctors within ESOT and ISHLT***

Speaker: Luciano Potena, MD, Bologna, Italy

***Teaching/Discussion Points***

- a. Structure of ESOT and ISHLT
- b. Possibilities and levels to get involved
- c. Career development programs in ESOT and ISHLT

**9:15-9:30 (15 Mins)**

***Paving the Way for the 'Next Generation'***

Speaker: Andreas Zuckermann, MD, Vienna, Austria

***Teaching/Discussion Points***

- a. Recruiting of junior doctors of ESOT/ISHLT
- b. Changes needed for the 'next generation'
- c. Vision for the next decade

**9:30-9:45 (15 Mins)**

## Q&A with Panel

**9:45-10:00 (15 Mins)**

**COFFEE BREAK**

**10:00 – 11:30 (90 Mins)**

**SESSION 2: Starting Right**

**Moderators: Alexander Bernhardt, MD and Daniel Zimpfer, MD, MBA**

**10:00-10:15 (15 Mins)**

***Significance of Short-Term Support for Acute HF in Adults***

**Speaker: Gloria Färber, MD, PhD, Jena, Germany**

***Teaching/Discussion Points***

- a. Possibilities for short term support including ECMO
- b. Aspects of different types of Impella support

**10:15-10:30 (15 Mins)**

***Short-Term Support in Children and Bridge to Recovery***

**Speaker: Martin Schweiger, MD, PD, Zürich, Switzerland**

***Teaching/Discussion Points***

- a. ECMO and Impella techniques in children
- b. Recovery rates in children after short term support

**10:30-10:45 (15 Mins)**

***Surgical Implantation Specifics in Adults***

**Speaker: Jan Schmitto, MD, PhD, MBA, Hannover, Germany**

***Teaching/Discussion Points***

- a. Key aspects of implantation techniques
- b. Assessment of proper VAD positioning
- c. Alternative approaches

**10:45-11:00 (15 Mins)**

***Surgical Implantation Specifics in Children and EMAH Patients***

**Speaker: Daniel Zimpfer, MD, MBA, Vienna, Austria**

***Teaching/Discussion Points***

- a. Alternative implantation sites in children
- b. Key aspects for intracorporeal implantation in children
- c. Challenges in EMAH patients from a surgical perspective

**11:00-11:15 (15 Mins)**

***Assessing and Optimizing RV Function Pre-Operatively***

**Speaker: Paul Christian Schulze, MD, PhD, Jena, Germany**

***Teaching/Discussion Points***

- a. Assessment of right ventricular function
- b. Optimization of RV prior to MCS

**11:15-11:30 (15 Mins)**

**Q&A with Panel**

**11:30-13:00 (90 Mins)**

**SESSION 3: Prepare for Success**

**Moderators: Gloria Färber, MD, PhD and Buntaro Fujita, MD**

**11:30-11:45 (15 Mins)**

***MCS Technology***

**Speaker: Jan Schmitto, MD, PhD, MBA, Hannover, Germany**

***Teaching/Discussion Points***

- a. Devices currently utilized in clinical practice
- b. included TAH/Carmat

**11:45-12:00 (15 Mins)**

***When Should Patients Be Referred? Warning Signs***

**Speaker: Paul Christian Schulze, MD, PhD, Jena, Germany**

***Teaching/Discussion Points***

- a. Risk stratification in advanced heart failure
- b. Lessons learned in timely evaluation

**12:00-12:15 (15 Mins)**

***Pre-Operative Diagnostic Tools in Complex Anatomies***

**Speaker: Alexander Bernhardt, MD, Hamburg, Germany**

***Teaching/Discussion Points***

- a. Virtual fit for adult small patients
- b. Imaging for EMAH patients
- c. Need for invasive diagnostics in EMAH patients including heart catheterization

**12:15-12:30 (15 Mins)**

***Special Features in Children***

**Speaker: Martin Schweiger, MD, PD, Zürich, Switzerland**

***Teaching/Discussion Points***

- a. Device selection in children including Berlin Heart, Jarvik
- b. Specifics in pre-operative diagnostics
- c. Basic knowledge of challenges in Fontan and Glenn patients!

**12:30-12:45 (15 Mins)**

***Quality of Life after VAD and the Impact of Frailty and Social Behaviors on VAD Success***

**Speaker: Buntaro Fujita, MD, Lübeck, Germany**

***Teaching/Discussion Points***

- a. Assessment of frailty in MCS
- b. Opportunities to improve outcomes related to social behaviors

**12:45-13:00 (15 Mins)**

**Q&A with Panel**

**13:00-14:00 (60 Mins)**

**LUNCH BREAK**

**14:00 – 15:15 (75 Mins)**

**SESSION 4: Pump It Up**

**Moderators: Anna Meyer, MD and Stephan Ensminger, MD, DPhil**

**14:00-14:15 (15 Mins)**

***Managing the Right Ventricle Post-Op***

**Speaker: Anna Meyer, MD, Heidelberg, Germany**

***Teaching/Discussion Points***

- a. Assessment of RV failure in ICU patient
- b. Methods of managing RV failure post op

**14:15-14:30 (15 Mins)**

***Pump Speed Optimization: The Role of Imaging and Hemodynamics***

**Speaker: Alexander Bernhardt, MD, Hamburg, Germany**

***Teaching/Discussion Points***

- a. Review of commonly used MCS parameters
- b. Technical aspects of ramp study

**14:30-14:45 (15 Mins)**

***Aortic Troubles***

**Speaker: Diyar Saeed, MD, PhD, Leipzig, Germany**

***Teaching/Discussion Points***

- a. Identification of AI in MCS patient
- b. Management of AI in MCS patient
- c. Management of aortic valve insufficiency
- d. Approach to tricuspid and mitral valve insufficiency
- e. Concomitant interventions

**14:45-15:00 (15 Mins)**

***Latest Data from EUROMACS: Outcome of Durable VADs in Adults and Children***

**Speaker: Theo De By, MBA, PhD, Zuid-Holland, Netherlands**

***Teaching/Discussion Points***

- a. Evolving of EUROMACS
- b. Outcome in the Euromacs region including death on support, time to transplant
- c. Erea effect over the last 10 years

**15:00-15:15 (15 Mins)**

**Q&A with Panel**

**15:15-15:30 (15 Mins)**

**COFFEE BREAK**

**15:30-16:45 (75 Mins)**

**SESSION 5: Clots, Bugs, and More**

**Moderators: Paul Christian Schultze, MD, PhD and Jan Schmitto, MD, PhD, MBA**

**15:30-15:45 (15 Mins)**

***Alarms and Hardware Troubleshooting, Waveforms***

**Speaker: Thomas Schläglhofer, MSc, Vienna, Austria**

***Teaching/Discussion Points***

- a. Review of abnormal waveforms
- b. Techniques for triage of ambulatory alarms

**15:45-16:00 (15 Mins)**

***Pump Thrombosis, Embolic Complications, and Hemorrhagic Stroke***

**Speaker: Gloria Färber, MD, PhD, Jena, Germany**

***Teaching/Discussion Points***

- a. Identification and management of pump thrombosis
- b. Management of stroke in the MCS patient
- c. Strategy for anti-coagulation post MCS

**16:00-16:15 (15 Mins)**

***Innovative Anticoagulation in MCS – What's New?***

**Speaker: Stephan Ensminger, MD, DPhil, Lubeck, Germany**

***Teaching/Discussion Points***

- a. Standard Anticoagulation after MCS
- b. New innovative protocols

**16:15-16:30 (15 Mins)**

***Reintegration into Social Life for Adults and Children***

**Speaker: Thomas Schlöglhofer, MSc, Vienna, Austria**

***Teaching/Discussion Points***

- a. Programs to reintegrate patients into work
- b. Programs to reintegrate children into school

**16:30-16:45 (15 Mins)**

**Q&A with Panel**

**16:45-17:00 (15 Mins)**

**SUMMARY / CONCLUDING REMARKS / EVALUATION**

***Adjourn***