



INTERNATIONAL SOCIETY FOR MECHANICAL CIRCULATORY SUPPORT

**BOLOGNA
ITALY**

Royal Carlton Hotel

**OCTOBER
21-23
2019**



27th ANNUAL MEETING
of International Society
for Mechanical Circulatory Support

Under the patronage of



ALMA MATER STUDIORUM
UNIVERSITÀ DI BOLOGNA
SCUOLA DI MEDICINA E CHIRURGIA

www.ismcs.org

PROGRAM CHAIR

ANTONIO LOFORTE, MD, PhD

S. Orsola Hospital
Department of Cardiothoracic,
Transplantation
and Vascular Surgery
University of Bologna
Italy

PROGRAM CO-CHAIR

FRANCESCO MOSCATO, ENG D, PhD

Center for Medical Physics
and Biomedical Engineering
Medical University of Vienna
Austria

ISMCS SCIENTIFIC COMMITTEE

- A. El Banayosy (Oklahoma City, OK, USA)
- B. Meyns (Leuven, Belgium)
- M. Ono (Tokyo, Japan)
- C. Sivathanan (Singapore)
- M. Slepian (Tucson, AZ, USA)
- D. Timms (Houston, TX, USA)
- G. Wieselthaler (San Francisco, CA, USA)
- T. Kaufmann (Aachen, Germany)
- T. Schlöglhofer (Wien, Austria)

LOCAL ORGANIZING COMMITTEE

- G. Gargiulo (Bologna, Italy)
- D. Pacini (Bologna, Italy)
- G. Frascaroli (Bologna, Italy)
- E. Angeli (Bologna, Italy)
- S. Martin-Suarez (Bologna, Italy)
- M. Baiocchi (Bologna, Italy)
- M. Masetti (Bologna, Italy)
- L. Potena (Bologna, Italy)
- A. Loforte (Bologna, Italy)
- R. Di Bartolomeo (Bologna, Italy)

ISMCS PRESIDENT

F. Moscato, Austria

IMMEDIATE PAST-PRESIDENT

C. Sivathasan, Singapore

SECRETARY GENERAL

G. Tansley, Australia

TREASURER

T. Tsukiya, Japan

BOARD OF TRUSTEES

H. Anai, Japan

C. Bartoli, USA

K. Fukamachi, USA

S. Gregory, Australia

J. Karimov, USA

T. Kaufmann, Germany

S. Küçükaksu, Turkey

O. Maruyama, Japan

T. Masuzawa, Japan

C. Nix, Germany

T. Schlöglhofer, Austria

D. Timms, USA

K. Yamazaki, Japan

ISMCS 2019 ENDORSED BY



PRELIMINARY SCIENTIFIC PROGRAM

OCTOBER 20

09.00-12.00 EXECUTIVE BOARD MEETING

*The meeting will take place
at Royal Carlton Hotel*

13.00-17.00 GENERAL BOARD MEETING

*The meeting will be hosted by
Società Medica Chirurgica di Bologna
Palazzo dell'Archiginnasio - P.zza Galvani, 1*

OCTOBER 21

07.45-10.00 Young Investigators Pre-Symposium

CHAIRS: T. KAUFMANN, T. SCHLÖGLHOFER

- PS-1 From silk road to blood pumps: developing MCS in China
P.L. HSU
- PS-2 MCS in the Indian Scenario: Challenges & its Future
D. SODHANI
- PS-3 Sensor and sensor-less systems for physiological control of VADs: Where to next?
A. STEPHENS
- PS-4 The YIN and YANG of LVAD optimization: when quality of life matches flow watts and waves
S. BOSCHI
- PS-5 Small patients, huge demand? Pediatric MCS programs
S. BHAVSAR
- PS-6 Pre-operative imaging to address operational challenges in small Japanese patients
S. SONNTAG
- PS-7 "Tools" in the Tool Box: What MCS Clinicians Have (and Don't Have) to be Successful in Today's World
S. SCHROEDER
- PS-8 Evaluation of peripheral circulation and its pulsatility under circulatory assist with continuous-flow left ventricular assist device
J. SHIMAMURA

OCTOBER 21

10.00-10.30 Opening Ceremony

CHAIRS: C. SIVATHASAN, D. PACINI

WELCOME BY ISMCS 2019 CONFERENCE PRESIDENT

A. LOFORTE

ISMCS PRESIDENTIAL ADDRESS

F. MOSCATO

10.30-11.30 H. REUL Session

CHAIRS: U. STEINSEIFER, M. SLEPIAN, M. MACCHERINI

- Thermal safety of a transcutaneous energy transfer system for ventricular assist devices
S.L.C. Au (NEW ZEALAND)
- Aortic regurgitation in heart failure patients after Abiomed Impella-device implantation
A. NEMETH (GERMANY)
- LVAD speed increase at exercise: insights from a computational cardio-respiratory simulator
C. GROSS (AUSTRIA)
- Hemolysis evaluation of a rotary blood pump at low-flow conditions for ECMO/ECCO2R applications
M. SCHÖPS (GERMANY)
- Visualizing red blood cell exclusion in a spiral groove bearing gap using erythrocyte ghosts and particle image velocimetry
S. BIERITZ (USA)

11.30-12.30 Keynote Lecture I

CHAIRS: M. LOEBE, A. LOFORTE

PIONEERING MECHANICAL CIRCULATORY SUPPORT (EUROPE) • R. HETZER

PIONEERING MECHANICAL CIRCULATORY SUPPORT (USA) • O.H. FRAZIER

12.30-13.00 Round Table I

WHY AND HOW TO DEVELOP A VAD PROGRAM, GET CONSCIENCE, AND IMPROVE THE RUNNING BY TIME

CHAIR: J. LONG

LECTURE: S. MALTAIS

COMMENTS: M. ONO, L. POTENA, P. MOHACSI, D. CHRISTENSEN

13.00-13.30 ISMCS Welcome by Authorities

CHAIRS: R. DI BARTOLOMEO, M. GARGIULO

13.30-14.30 Lunch MCS Symposium I

CHAIRS: A. SIMON, M. RINALDI, M. MASSETTI

- Pulsatility: 'Argument for' and 'Biologic Consequences Without'
M. SLEPIAN
- Haemodynamics of pulsatile and continuous flow pumps
H. SCHIMA
- The return to the pulse with current centrifugal pumps: clinical implications
W. DEMBITSKY
- Do we think we can improve outcomes with adding pulsatility to our pulseless pumps?
G. WIESELTHALER

14.30-15.00 Invited Lectures

DEVICE DEVELOPMENT

CHAIRS: V. TCHANTCHALEISHVILI, M. SLAUGHTER, T. TSUKIYA

- MCS development: from design to commercial availability
U. STEINSEIFER
- Pushing towards a 'mechanical' rotary Total Artificial Heart concept
D. TIMMS
- Pushing towards a 'biological' Total Artificial Heart concept
G. GEROSA

15.00-16.30 Selected Abstracts 1

DEVICE DEVELOPMENT

CHAIRS: V. TCHANTCHALEISHVILI, K. FUKAMACHI, V. TARZIA

- A total artificial heart as a physiological sensor
M. DIEDRICH (GERMANY)
- Experimental validation of the fluid-structure interaction simulation of an implantable total artificial heart (CARMAT-TAH)
F. DE GAETANO (ITALY)
- A ventricular decompressing apparatus with percutaneous catheters & paracorporeal pumping; using robotic materials to create intracorporeal & extracorporeal loops enabling simultaneous ventricular assist & ECMO
K. V. SINGRU (INDIA)
- Reproducible model for chronic stable heart failure in ovine species
C. TORREGROZA (GERMANY)

OCTOBER 21

- Population based engineering to treat the maximum number of patients
S. SONNTAG (GERMANY)
- Compact linear peristalsis: non-pneumatic peristaltic occlusion as a mechanism for blood propulsion
M. LI (CHINA)
- Universal ventricular assist device for right and left circulatory support
J. KARIMOV (USA)
- Evaluation of intraventricular flow dynamics with a short-term intraventricular balloon pump
A. BOONE (AUSTRALIA)
- A new point-of-care microfluidic device for the assessment of residual platelet reactivity in patients on antiplatelet therapy
S. BOZZI (ITALY)

16.30-16.50 Coffee & Poster Exhibition 1

16.50-17.20 Keynote Lecture II

CHAIRS: L. POTENA, M. LOEBE

HEART REPLACEMENT THERAPY: MECHANICAL, BIOLOGICAL OR REGENERATIVE?

D. TAYLOR / COMMENT BY M. LOEBE

17.20-18.00 Invited Lectures

PARTIAL SUPPORT

CHAIRS: L. HUNZIKER, C. RUSSO, L. CAREDDU

- Surgical or percutaneous interventional treatment?
B. MEYNS
- Percutaneous VADs: options
G. LEBRETON
- Novel solutions and applications
A. FIANE
- Miniature LA Assist Device (VADovations)
J. LONG

18.00-19.00 Selected Abstracts 2

PARTIAL SUPPORT AND FULL VAD SUPPORT

CHAIRS: T. SIESS, L. HUNZIKER, M. ATTISANI

- Long term support by a partial support device
A. BARBONE (ITALY)
- Impella supported cardiac surgery
P. MASIELLO (ITALY)
- Revivent less invasive left ventricular enhancement (live): single center mid-term results
P. KLEIN (NETHERLANDS)
- Different profiles, in patients implanted with last generation centrifugal pump, identified according to a new hemodynamic index
A. MONTALTO (ITALY)
- First acute in vivo experience with EverHeart LVAD
G. ABER (USA)
- Minimally invasive implantation of left ventricular assist devices: a tool to increase survival in women
S. MARIANI (GERMANY)

19.00-20.00 Poster Exhibition 2

19.00-20.00 ISMCS General Assembly

08.00-09.00 Invited Lectures

SHORT-TERM MCS AND ECLS

CHAIRS: F. MUSUMECI, A. EL BANAYOSY, A. OUATTARA

- ELSO registry report: perspectives
R. LORUSSO
- Cardiogenic shock: ECLS treatment strategies
F. PAPPALARDO
- Recovery from cardio-pulmonary shock with short-term circulatory support: driving the needle forward
E. RAME
- Beyond ECLS - Transition to implantable long-term LVAD
D. SAEED
- Donor hearts preservation and assessment with Organ Care System
S. TSUI
- Extracorporeal Circulation Circuits in Surgery: look at History to get the Present
L. DI MARCO

09.00-10.00 Selected Abstracts 3

SHORT-TERM MCS AND ECLS

CHAIRS: S. SONNTAG, A. MONTALTO, S. MARTIN-SUAREZ

- Outcome of heart transplantation in short and long-term assistance device patients: cold storage vs ex-vivo normothermic perfusion
S. SPONGA (ITALY)
- Left ventricular unloading during peripheral extracorporeal membrane oxygenator support (ECMO): a bridge to life in profound cardiogenic shock
V. LODO (ITALY)
- Elective institution of ECLS for primary PCI is associated with improved outcomes. A single center experience
G. BIANCHI (ITALY)
- Bridge to heart transplantation using the Levitronix CentriMag short-term ventricular assist device - A 10-years single-centre experience
P. MOHITE (UK)

- Experience with true percutaneous veno-pulmonary extracorporeal membrane oxygenation as right ventricular temporary support following left ventricular assist device insertion
J. YASHUTOSH (AUSTRALIA)
- Platelet function tests in VA ECMO patients - Can we read between the lines?
D. HAXHIADEMI (ITALY)

10.00-10.30 Selected Abstracts 4

PATIENT CARE

CHAIRS: T. TSUKIYA, S. SCIACCA, E. PILATO

- Rehabilitation-related outcomes in patients with LVADs: functional capacity, disability, and quality of life
M. POLASTRI (ITALY)
- Echocardiographic assessment of right ventricular failure in continuous flow LVAD patients: a systematic review and meta-analysis of observational studies
M. BENEDETTO (ITALY)
- Awake extracorporeal membrane oxygenation (ECMO) in patients with refractory cardiogenic shock
K. UMAKUMAR (UK)

10.30-11.00 Coffee & Poster exhibition 3

11.00-12.00 Invited lectures

LONG-TERM VAD

CHAIRS: A. LOFORTE, S. SCHUELER, C. AMARELLI

- Concomitant Cardiac Surgery procedures in need during LVAD implantation
W. DEMBITSKY
- Minimally-invasive LVAD implantation: should we adopt it as standard?
J. SCHMITTO
- How to deal with preoperative and postoperative RV function
D. ZIMPFER
- Continuous-flow BVAD: feasible and reliable?
E. POTAPOV
- LVAD hemodynamic optimization
C. MAHR

OCTOBER 22

12.00-12.30 Keynote lecture III

CHAIRS: C. SIVATHASAN, G. FAGGIAN

HEART TRANSPLANTATION VS. MECHANICAL CIRCULATORY SUPPORT: CURRENT PERSPECTIVES

M. SLAUGHTER / COMMENT BY M. FRIGERIO

12.30-13.00 Round table II

MCS REGISTRIES IN THE WORLD

CHAIR: B. MEYNS

INTERMACS/STS, EUROMACS, MCS Asia/Pacific, MCS in Japan

R. KORMOS, T. DE BY, C. SIVATHASAN, J. LONG, M. ONO, F. GRIGIONI

13.00-13.30 Poster exhibition 4

13.30-14.30 Lunch MCS Symposium II Medtronic

Sponsored by Medtronic through an Unrestricted Educational Grant

CHAIRS: C. MAHR, L. KLEIN, M. PILATO

- LVAD therapy: long-term outcomes and challenges
R. KORMOS
- LVAD adverse events: still a debate
A. SIMON
- Adult LVAD systems reliability for pediatric population
A. LORTS
- LVAD concept as monitoring system
F. MOSCATO
- Telemonitoring and smart systems I
L. KLEIN

14.30-15.20 Invited lectures

HEMOCOMPATIBILITY

CHAIRS: G. WIESELTHALER, M. SLEPIAN, U. LIVI

- "It's Hemocompatibility", "Not Thrombosis and/or Bleeding"
M. SLEPIAN
- AVWS and beyond
C. BARTOLI
- Biocompatibility of current continuous and pulsatile pumps
I. NETUKA
- Human Interface and Usability associated with MCS
T. SCHLÖGLHOFER

15.20-16.30 Selected abstracts 5

HEMOCOMPATIBILITY

CHAIRS: J. KARIMOV, U. KERTZSCHER, A. IACOVONI

- Investigation of blood flow and thrombosis within oxygenators using x-ray particle image velocimetry
I. PINAR (AUSTRALIA)
- Von Willebrand factor size and function predict the risk of LVAD-associated bleeding
S. HENNESSY-STRAHS (USA)
- Platelet transcriptome in advanced heart failure patients following mechanical unloading
A. KOLIPOPOULOU (USA)
- Standardizing MCS testing loop design: effect of constituent components on overall system thrombogenicity
Y. ROKA-MOIIA (USA)
- Inflow cannula design impacts to hemocompatibility related adverse events
T. MOTOMURA (USA)
- Influence of different antithrombotic regimens on prothrombotic platelet function in patients on mechanical circulatory support with left ventricular assist device
F. CONSOLO (ITALY)
- The effect of shear rate and exposure time on the formation size of human platelet aggregations
M. INOUE (JAPAN)

16.30-16.50 Coffee & Poster exhibition 5

16.50-17.20 Keynote lecture IV

CHAIRS: P. LEPRINCE, M. MORSHUIS, G. GEROSA

REGENERATIVE MEDICINE AND 3D BIOPRINTING FOR HUMAN SPACE EXPLORATION AND PLANET COLONISATION

T. GHIDINI

17.20-18.10 Invited lectures

TOTAL ARTIFICIAL HEART

CHAIRS: P. LEPRINCE, M. MORSHUIS, G. GEROSA

- Total Artificial Heart: temporary bridge or definitive solution?
J. COPELAND
- New Total Artificial Heart Systems
P. LEPRINCE
- The 'Cleveland' TAH concept
K. FUKAMACHI
- Excor Adult BVAD experience
M. WILHELM

18.10-19.30 Selected abstracts 6

LONG-TERM LVAD & BiVAD

CHAIRS: D. TIMMS, M. MASETTI, G. DI GIAMMARCO

- Minimally invasive off pump left ventricular assist device implantation in redo patients with extrapericardial approach
V. LODO (ITALY)
- Right atrial vs right ventricular HeartWare HVAD placement in patients with left-sided HeartWare HVAD: a systematic review
E. J. MAYNES (USA)
- Nine-year single-center experience with the HeartWare left ventricular assist device system
A. DELL'AQUILA (GERMANY)
- Outflow graft twist occlusion in the HeartMate 3 left ventricular assist system in 7 cases: analysis of potential mechanisms using computed tomography
N. SOLOWJOWA (GERMANY)
- Continuous-flow left ventricular assist device outflow graft stenting: indications and outcomes
C. T. WOOD (USA)
- Two year follow-up after left ventricular assist device exchange to HeartMate 3
G. DOGAN (GERMANY)
- Concomitant cardiac procedures during implantation of long-term continuous-flow LVADs: a EUROMACS analysis
G. GLIOZZI (ITALY)
- Results of primary biventricular support: an analysis of data from the EUROMACS-registry
J. VIERECKE (USA)

20.30 Conference Dinner (Awards)

08.00-09.00 Invited lectures

PEDIATRICS

CHAIRS: G. GARGIULO, C. PACE NAPOLEONE, A. LORTS, P. WEARDEN

- PEDIMACS Registry: outcomes
C. VANDERPLUYM
- Total Artificial Heart therapy in pediatrics
D. MORALES
- An open window towards permanent support with infant pumps
A. AMODEO
- Pediatric VAD outpatients management
J. CONWAY
- Heart Transplantation or MCS in congenital heart disease?
A. HASAN

09.00-10.00 Selected abstracts 7

PEDIATRICS

CHAIRS: M. SCHWEIGER, L. GALLETTI, E. ANGELI

- Does axial flow confer an advantage to adult congenital heart disease transplant candidates?
D. MORALES (USA)
- Outcomes of continuous-flow ventricular assist devices in children: a single-centre experience
J. ABDULLAH (UK)
- Twenty years of paediatric venoarterial ECMO
M.T. CASCARANO (ITALY)
- Age-based differences in Bivalirudin dose requirements for pediatric extracorporeal circulatory support devices
J. TERUYA (UK)
- Novel paediatric rotary blood pump sputnik
D. TELYSHEV (RUSSIAN FEDERATION)
- Hemolysis testing and acute animal experiment of next generation ultra-compact centrifugal pediatric VAD with full magnetic levitation
M. OSA (JAPAN)

10.00-10.20 Coffee & Poster exhibition 6

OCTOBER 23

10.20-10.50 **Keynote lecture V**

CHAIRS: A. LORTS, M. PADALINO, J. KARIMOV

HISTORY AND INNOVATIONS IN PUMP DEVELOPMENT FOR CONGENITAL HEART DISEASE

K. DASSE

10.50-11.30 **Invited lectures**

SIMULATION

CHAIRS: M. SLEPIAN, M. FECCIA, G. TANSLEY

- CFD blood flow simulation: strengths and limitations
A. REDAELLI
- Impact of LVAD cannulation on blood flow and stagnation
A. ALISEDA
- Challenging solutions in congenital heart disease
M. GRANEGGER

11.30-13.00 **Selected abstracts 8**

SIMULATION

CHAIRS: M. GRANEGGER, G. TANSLEY, M. FECCIA

- Asynchronous ventricular volume change during continuous-flow left ventricular assist device support
J. SHIMAMURA (JAPAN)
- Implications of LVAD supported intraventricular flows
S. LIAO (AUSTRALIA)
- Numerical analysis of hemodynamic-related thrombogenic potential of the HeartMate 3 and HeartWare HVAD: mechanistic insights into observed clinical outcomes
F. CONSOLO (ITALY)
- Towards an implantable lung - Using multiscale simulations to evaluate possible connection options
K. HUGENROTH (GERMANY)
- CFD blood flow simulation: strengths and limitations
A. REDAELLI (ITALY)
- Investigation of pump speed modulation and its timing on the risk of ventricular thrombosis
H. SCHIMA (AUSTRIA)
- Investigation of the apical flow field under left ventricular assist device support
H. SCHIMA (AUSTRIA)

- Intraoperative use of 3D printed exoskeleton in LVAD inflow cannula positioning-first in human cases
I. HARTYÁNSZKY (HUNGARY)
- Spiral-Flow-Generated Circulatory Mechanical Assistance
J. KRESH (JAPAN)

13.00-14.00 **Lunch MCS symposium III**

Abbott Medical

CHAIRS: A. POPOV, A. EL BANAYOSY, M. FRIGERIO

- Tips and tricks for VAD placement and removal
E. POTAPOV
- Technical solutions in congenital heart disease
A. HASAN
- LVAD therapy for all?
W. DEMBITSKY
- Myocardial Recovery: What Have We Learned and Future Directions
S. DRAKOS
- Telemonitoring and smart systems II
K. BOURQUE

14.00-14.30 **Keynote lecture VI**

CHAIRS: F. MOSCATO, T. MASUZAWA

NEUROPROSTHETICS AND BIONICS, FROM FICTION TO SCIENCE

S. MICERA

14.30-16.15 **Invited lectures**

DEVICES UPDATE

CHAIRS: J. LONG, M. ONO, M. BAIOCCHI

- Abbott Medical
- Abiomed
- Berlin Heart
- Bioventrix
- Corwave
- Eurosets
- Jarvik Heart-Leviticus Cardio
- Medtronic
- Torvad

16.15-16.35 **Coffee & Poster exhibition 7**

16.35-17.25 **Invited lectures**

SMART PUMPING, MONITORING, CONTROL

CHAIRS: H. SCHIMA, F. CONSOLO, G. TANSLEY

- Exercise limitations in LVAD patients: insights from hemodynamic simulations
L. FRESIELLO
- In-vitro modelling for pump control

OCTOBER 23

evaluation: strengths and limitations

S. GREGORY

- Elimination of driveline: transcutaneous energy transmission projects
S. SCHUELER
- New Technologies and wearables for MCS
M. SLEPIAN

17.25-18.55 Selected abstracts 9

SMART PUMPING, MONITORING, CONTROL

CHAIRS: J. KARIMOV, F. CONSOLO, L. BOTTA

- Development of a percutaneous access device for preventing driveline infection
T. MOTOMURA (USA)
- Evaluation of the pulse wave from the face of the patients with rotary blood pump in the outpatient clinic
T. YAMBE (JAPAN)
- Quantification of circadian loss in HVAD patients using controller log file data
V. RAMOS (USA)
- HVAD log files: pump power signature
N. VASUDEVAN (USA)
- Time-frequency analysis of the LVAD log files enhances early diagnosis of pump thrombosis
F. CONSOLO (ITALY)
- Changes in waveforms during six minutes walking test in patients with H-VAD: a new marker of functional capacity
S. BOSCHI (ITALY)
- Pressure estimation with the TORVAD using a model-based Kalman filter
J. GOHEAN (USA)
- The role of time in therapeutic range (TTR) of anticoagulation in reducing thrombosis' risk in LVAD patients
M. MASETTI (ITALY)
- Evolution and clinical adoption of the autologs system, an automated analysis for enhanced patient management
M. BROWN (USA)

19.00-19.15 Closing ceremony

A. LOFORTE, A. EL BANAYOSY

ISMCS/ICCAC MCS**PROFICIENCY
VERIFICATION COURSE****08.00-12.00****CHAIRS**

T. Schlöglhofer (Wien, Austria)
D. Christensen (Philadelphia, PA, USA)

FACULTY

J. Beckman (Seattle, WA, USA)
T. Berg (Aachen, Germany)
F. Kaufmann (Berlin, Germany)
L. Klein (San Francisco, CA, USA)
A. Loforte (Bologna, Italy)
C. Mahr (Seattle, WA, USA)
M. Masetti (Bologna, Italy)
B. Meyns (Leuven, Belgium)
H. Moody (Louisville, KY, USA)
I. Netuka (Prague, Czech Republic)
E. Potapov (Berlin, Germany)
S. Schroeder (Lincoln, NE, USA)
A. Thomas (Portland, OR, USA)
G. Wieselthaler (San Francisco, CA, USA)
D. Zimpfer (Vienna, Austria)

Registration fees

.....
PHYSICIAN/ENGINEER
€ 120,00 + VAT (€ 146,40 VAT included)

NURSE
€ 80,00 + VAT (€ 97,60 VAT included)
.....

This joint ISMCS/ICCAC interactive course is being offered for attendees to learn about the care of MCS patients from experienced providers.

The course objective is to develop critical thinking skills in providers who care for the MCS population.

HIGHLIGHTS

Small group problem based scenarios covering management and trouble shooting of common issues surrounding MCS devices

Small group exercises led by experienced VAD Coordinators, HeartFailure Cardiologists, and Cardiac Surgeons who specialize in MCS support

Devices covered in the scenarios include:

- o Medtronic HVAD
- o Abbott HeartMate 3
- o Abiomed Impella

All group exercises will be conducted in a manner that encourages participation by the attendees. Group interaction is the basis for success of this educational experience.

OBJECTIVES

The objectives of this course are designed to meet the Joint Commission's "Goals of Annual Competency" for MCS personnel.

- Review basic concepts surrounding MCS technology
- Review critical thinking skills necessary in assessment and management of patients supported by MCS technology
- Assessment of the participant's knowledge regarding the technical information and procedures required operating specific MCS devices
- Confirmation of proficiency of operation of specific MCS devices

TARGET PARTICIPANTS

This course is intended for any healthcare professional who:

- has assumed a role on a multi-disciplinary MCS team
- cares for patients supported by MCS technology
- want to boost their functional knowledge on MCS problem solving

CHAIRS: R. HETZER, M. LOEBE, A. LOFORTE

- 08.00-08.10 **Welcome Remarks**
R. HETZER
- 08.10-08.40 **Heart transplantation:
does the heart last?**
R. HETZER
- 08.40-09.10 **VAD in heart failure in adults:
Is myocardial recovery a
realistic goal?**
M. DANDEL
- 09.10-09.40 **The mitral valve in heart
failure: fix it or forget it?**
M. LOEBE
- 09.40-10.00 **Coffee break**
- 10.00-10.20 **VAD in heart failure
in children: bridge to heart
transplantation or myocardial
recovery?**
E.M. JAVIER DELMO
- 10.20-10.40 **Heart failure: challenging
cases and solutions**
A. LOFORTE
- 10.40-11.00 **Stem Cell application
in heart failure: alternative
to surgery?**
G. STEINHOFF
- 11.00-11.20 **Interventional transcatheter
treatment procedures
(Mitraclip, Cardioband, TAVI)
in heart failure**
F. SAIA
- 11.20-11.40 **Hybrid transcatheter left
ventricular reconstruction
for the treatment
of ischaemic cardiomyopathy**
M. BIFFI
- 11.40-12.00 **The anesthesiologist:
role and view in treatment
of heart failure**
M. BAIOCCHI
- 12.00-12.20 **Role of coronary artery
revascularisation in ischemic
heart failure**
J. ENNKER
- 12.20 **Experts' Discussion**

RHICS 17th Expert Forum

HEART FAILURE
SURGICAL OPTIONS

08.00-13.00

FACULTY

- M. Baiocchi (Bologna, Italy)
M. Biffi (Bologna, Italy)
M. Dandel (Berlin, Germany)
J. Ennker (Krefeld, Germany)
R. Hetzer (Berlin, Germany)
E.M. Javier Delmo (Berlin, Germany)
M. Loebe (Miami, FL, USA)
A. Loforte (Bologna, Italy)
F. Saia (Bologna, Italy)
G. Steinhoff (Rostock, Germany)

INTERNATIONAL FACULTY

A. Aliseda (Washington DC, USA)
C. Amarelli (Naples, Italy)
A. Amodeo (Rome, Italy)
E. Angeli (Bologna, Italy)
M. Attisani (Turin, Italy)
M. Baiocchi (Bologna, Italy)
C. Bartoli (Philadelphia, PA, USA)
J. Beckman (Seattle, WA, USA)
T. Berg (Aachen, Germany)
S. Bhavsar (Danvers, MA, USA)
M. Biffi (Bologna, Italy)
S. Boschi (Bologna, Italy)
L. Botta (Bologna, Italy)
K. Bourque (Charleston, SC, USA)
L. Careddu (Bologna, Italy)
D. Christensen (Philadelphia, PA, USA)
F. Consolo (Milan, Italy)
J. Conway (Alberta, Canada)
J. Copeland (San Diego, CA, USA)
M. Dandel (Berlin, Germany)
K. Dasse (Louisville, KY, USA)
T. De By (Windsor, UK)
W. Dembitsky (San Diego, CA, USA)
R. Di Bartolomeo (Bologna, Italy)
G. Di Giammarco (Chieti, Italy)
L. Di Marco (Bologna, Italy)
S. Drakos (Salt Lake City, UT, USA)
A. El Banayosy (Oklahoma City, OK, USA)
J. Ennker (Krefeld, Germany)
G. Faggian (Verona, Italy)
M. Feccia (Rome, Italy)
A. Fiane (Oslo, Norway)
O.H. Frazier (Houston, TX, USA)
L. Fresiello (Leuven, Belgium)
M. Frigerio (Milan, Italy)
K. Fukamachi (Cleveland, OH, USA)
L. Galletti (Bergamo, Italy)
G. Gargiulo (Bologna, Italy)
M. Gargiulo (Bologna, Italy)
G. Gerosa (Padua, Italy)
T. Ghidini (The Hague, Netherlands)
M. Granegger (Zurich, Switzerland)
S. Gregory (Melbourne, Australia)
F. Grigioni (Rome, Italy)

A. Hasan (Newcastle, UK)
R. Hetzer (Berlin, Germany)
P.L. Hsu (Suzhou, China)
L. Hunziker (Bern, Switzerland)
A. Iacovoni (Bergamo, Italy)
E.M. Javier Delmo (Berlin, Germany)
J. Karimov (Cleveland, OH, USA)
F. Kaufmann (Berlin, Germany)
T. Kaufmann (Aachen, Germany)
U. Kertzscher (Berlin, Germany)
L. Klein (San Francisco, CA, USA)
R. Kormos (Pittsburgh, PA, USA)
G. Lebreton (Paris, France)
P. Leprince (Paris, France)
U. Livi (Udine, Italy)
M. Loebe (Miami, FL, USA)
A. Loforte (Bologna, Italy)
J. Long (Oklahoma City, OK, USA)
A. Lorts (Cincinnati, OH, USA)
R. Lorusso (Maastricht, Netherlands)
M. Maccherini (Siena, Italy)
C. Mahr (Seattle, WA, USA)
S. Maltais (Montreal, Canada)
S. Martin-Suarez (Bologna, Italy)
M. Masetti (Bologna, Italy)
M. Masetti (Rome, Italy)
T. Masuzawa (Ibaraki, Japan)
B. Meyns (Leuven, Belgium)
S. Micera (Pisa, Italy)
P. Mohacsi (Bern, Switzerland)
A. Montalto (Rome, Italy)
H. Moody (Louisville, KY, USA)
D. Morales (Cincinnati, OH, USA)
M. Morshuis (Bad Oeynhausen, Germany)
F. Moscato (Vienna, Austria)
F. Musumeci (Rome, Italy)
I. Netuka (Prague, Czech Republic)
M. Ono (Tokyo, Japan)
A. Ouattara (Bordeaux, France)
C. Pace Napoleone (Turin, Italy)
D. Pacini (Bologna, Italy)
M. Padalino (Padua, Italy)
F. Pappalardo (Milan, Italy)
E. Pilato (Naples, Italy)
M. Pilato (Palermo, Italy)
A. Popov (Tubingen, Germany)
E. Potapov (Berlin, Germany)
L. Potena (Bologna, Italy)
E. Rame (Philadelphia, PA, USA)
A. Redaelli (Milan, Italy)
M. Rinaldi (Turin, Italy)
C. Russo (Milan, Italy)
D. Saeed (Leipzig, Germany)
F. Saia (Bologna, Italy)
H. Schima (Wien, Austria)
T. Schlöglhofer (Wien, Austria)
J. Schmitto (Hannover, Germany)
S. Schroeder (Lincoln, NE, USA)
S. Schueler (Newcastle, UK)
M. Schweiger (Zurich, Switzerland)
S. Sciacca (Palermo, Italy)
J. Shimamura (Osaka, Japan)
T. Siess (Danvers, MA, USA)
A. Simon (Harefield, UK)
C. Sivathanan (Singapore)
M. Slaughter (Louisville, KY, USA)
M. Slepian (Tucson, AZ, USA)
D. Sodhani (Aachen, Germany)
S. Sonntag (Munich, Germany)
G. Steinhoff (Rostock, Germany)
U. Steinseifer (Aachen, Germany)
A. Stephens (Melbourne, Australia)
G. Tansley (Griffith, Australia)
V. Tarzia (Padua, Italy)
D. Taylor (Houston, TX, USA)
V. Tchanchalashvili (Philadelphia, PA, USA)
A. Thomas (Portland, OR, USA)
D. Timms (Houston, TX, USA)
S. Tsui (Cambridge, UK)
T. Tsukiya (Osaka, Japan)
C. VanderPluym (Boston, MA, USA)
P. Wearden (Orlando, FL, USA)
G. Wieselthaler (San Francisco, CA, USA)
M. Wilhelm (Zurich, Switzerland)
D. Zimpfer (Vienna, Austria)

GENERAL INFORMATION

CONGRESS VENUE

Royal Carlton Hotel

Via Montebello, 8 - 40121 Bologna (Italy)

The Hotel is in the centre of Bologna, just a short walk from Piazza Maggiore and the Two Towers.

How to get to Bologna

By Plane

Several airlines connect Bologna with many Italian and foreign cities.

The international airport "G. Marconi" is located just 5 km from the Congress Venue and the city centre, about 15 minutes by taxi.

Taxi: +39 051.372727 - +39 051 4950

By Train

The Bologna Central Station is one of the largest railway interconnections in both Italy and Europe. It is a 5 minutes walking from Royal Carlton Hotel.

By Car

The Royal Carlton Hotel is in the centre of Bologna, outside the restricted traffic zone.

From motorway A1, A13, A14: from the ring road exit n. 7 (Via Stalingrado) or exit Bologna Fiera direction city centre of Bologna.

To reach the Hotel using satellite navigation, it should be set for Via Milazzo 6 to avoid the restricted traffic zone.

A toll parking is available inside the hotel.

REGISTRATION

Online registration at
www.noemacongressi.it

Registration fees

CONGRESS

Physician/Engineer ISMCS Member

€ 450,00 + VAT (€ 549,00 VAT included)

Physician/Engineer ISMCS NON Member

€ 500,00 + VAT (€ 610,00 VAT included)

Nurse/Perfusionist/Resident

€ 190,00 + VAT (€ 231,80 VAT included)

Student

€ 105,00 + VAT (€ 128,10 VAT included)

1 Day Registration

€ 200,00 + VAT (€ 244,00 VAT included)

ISMCS/ICCAC MCS PROFICIENCY COURSE (MPV)

PHYSICIAN/ENGINEER

€ 120,00 + VAT (€ 146,40 VAT included)

NURSE

€ 80,00 + VAT (€ 97,60 VAT included)

Registration fee include

Congress

- Access to the Scientific sessions of the Congress
- Congress kit
- Certificate of attendance
- Coffee break and lunch

ISMCS/ICCAC MCS Proficiency Course (MPV)

- Access to the Course
- Course kit
- Certificate of attendance
- Coffee break

HOTEL RESERVATION

It is possible to make an online reservation at www.noemacongressi.it together with the registration to the Congress.

A number of rooms have been booked for Congress participants at the hotels listed below.

ROYAL HOTEL CARLTON 4*

Via Montebello, 8 - 40121 Bologna

Ph.: +39 051 249361

DUS: € 139,00

Double: € 169,00

STARHOTEL EXCELSIOR 4*

Viale P. Pietramellara, 51 - 40121 Bologna

Ph.: +39 051 246178

DUS: € 150,00

Double: € 170,00

HOTEL INTERNAZIONALE 4*

Via dell'Indipendenza, 60 - 40121 Bologna

Ph.: +39 051 245544

DUS: € 139,00

Double: € 169,00

HOTEL TRE VECCHI 4*

Via dell'Indipendenza, 47 - 40121 Bologna

Ph.: +39 051 231991

DUS: € 120,00

Double: € 140,00

HOTEL MERCURE BOLOGNA CENTRO 4*

Viale P. Pietramellara, 59 - 40121 Bologna

Ph.: +39 051 42211

DUS: € 125,00

Double: € 140,00

Rooms will be assigned on a first-come first-served basis depending on availability. Confirmation will be sent to each applicant.

Please note that tourist tax have to be paid directly at check-out.

Booking fee: € 25,00 + VAT (€ 30,50 VAT incl.).

OFFICIAL LANGUAGE

The official language of the Congress is English.

EXHIBITION AREA

A technical exhibition will take place throughout the Congress. For information, please contact f.geminiani@noemacongressi.it

SOCIAL PROGRAM

Conference Dinner will take place on October 22. Further information will follow soon.

Fee: € 45,00 + VAT (€ 54,90 VAT incl.)

AWARDS

Following tradition a number of awards are to be presented at the 27th Annual Meeting of the ISMCS in Bologna.

Helmut Reul Young Investigator Encouraging Award

This award is open to young investigators below 35 years old, who have submitted at least one successful abstract.

The top 5 scorers of the abstracts will make their presentations on Day 1, after the Opening Ceremony. The judges appointed by the Board will select the award winner. The winner will receive US \$1,000.

Sezai Award for innovation

The award is granted to the individual who contributes to the most innovative paper. There is no age restriction for this award. The winner will receive US \$500

Asia Pacific ISMCS Young Investigator Award

This award is open to young investigators below 35 years old from Asia Pacific to promote rotary blood technology in Asia Pacific. The award will be based on scores given by the Organizing Committee.

ISMCS Poster Award

The best poster will be decided upon the judges selected from the Board members.

ICMT Award

This prestigious award is bestowed to the Company that has given the most significant contribution to the advancement of the field.

**Abstracts
and Conference Proceedings
published by
ISMCS Official Journal**

Artificial
Organs

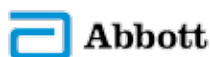


Editor-in-Chief

PAUL S. MALCHESKY, ENG D

Thanks to the following Companies
for the unconditional support

GOLD SPONSOR



SILVER SPONSOR



OTHER SPONSOR



www.vega-spa.com

ORGANIZING SECRETARIAT

NOEMA

Via Orefici, 4 • Bologna (Italy)

phone • +39 051 230385

email • info@noemacongressi.it

web • www.noemacongressi.it