27th ANNUAL MEETING
of International Society for Mechanical Circulatory Support

Under the patronage of

www.ismcs.org
PROGRAM CHAIR
Antonio Loforte, MD, PhD
S. Orsola Hospital
Department of Cardiothoracic, Transplantation and Vascular Surgery
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PROGRAM CO-CHAIR
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Austria

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ISMCS PROGRAM OUTLINE
ISMCS/ICCAC MCS Proficiency Verification Course 2019
October 23, 08.00-12.00
Chairs
T. Schlöglhofer, D. Christensen
VAD Coordinator Faculty
J. Beckman, T. Berg, F. Kaufmann
H. Moody, S. Schroeder, A. Thomas

RHICS 18th Expert Forum
‘Heart Failure Surgical Options’
October 23, 08.00-12.00
E.M. Delmo Javier
Secretary General, RHICS Society
OCTOBER 20
09.00-12.00 Executive Board Meeting
13.00-17.00 General Board Meeting
The meetings will be hosted by Società Medica Chirurgica di Bologna (Palazzo dell’Archiginnasio - Piazza Galvani, 1)

OCTOBER 21
07.45-10.00 Young Investigators pre-Symposium & Awards
Chairs: T. Kaufmann, T. Schlöglhofer
10.00-10.30 Coffee & Poster Exhibition 1
10.30-11.00 Opening Ceremony
Chairs: A. Loforte, F. Moscati, C. Sivathasan, D. Pacini
11.00-12.00 H. REUL Session
Chairs: U. Steinseifer, M. Slepián, M. Maccherini
12.00-12.30 Keynote Lecture I
Chairs: M. Loebe, A. Loforte
Pioneering Mechanical Circulatory Support (USA)
O.H. Frazier
Pioneering Mechanical Circulatory Support (Europe)
R. Hetzer
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
M. Ono, C. Hayward, L. Potena, P. Mohacsi, G. Wieselthaler, 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: U. Jorde, M. Rinaldi, M. Massetti
• Pulsatility: ‘Argument for’ and ‘Biologic Consequences Without’
  M. Slepián
• Haemodynamics of pulsatile and continuous flow pumps
  H. Schima
• The return to the pulse with current centrifugal pumps: clinical implications
  W. Dembtsky
• How current technology may provide an adequate pulsatility?
  T. Motomura
14.30-15.00 Invited Lectures
Device development
Chairs: A. Molteni, M. Slaughter, T. Tsukiyama
• 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
15.00-16.00 Selected Abstracts 1
Device development
Chairs: A. Molteni, K. Fukamachi, V. Tarzia
16.00-16.30 Coffee & Poster Exhibition 2
16.30-17.00 Keynote Lecture II
Heart Replacement Therapy: Mechanical, Biological or Regenerative?
D. Taylor / Comment by M. Loebe
17.00-17.30 Invited Lectures
Partial Support
Chairs: K. Sunagawa, R. Westenfeld, C. Russo
• Surgical or percutaneous interventional treatment?
  B. Meyns
• Percutaneous VADs: options
  G. Lebreton
• Novel solutions and applications
  A. Fiane
17.30-18.30 Selected Abstracts 2
Partial Support
Chairs: T. Siess, R. Westenfeld, M. Attisani
18.30-19.30 Poster Exhibition 3
18.30-19.30 ISMCS General Assembly
OCTOBER 22

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. Papalardo
- 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

10.00-10.30 Rapid fire / Poster
Short-term MCS and ECLS
Chairs: T. Tsukiyama, S. Sciacca, E. Pilato

10.30-11.00 Coffee & Poster exhibition 4

11.00-12.00 Invited lectures
Long-term VAD
Chairs: A. Lofopte, 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. Zimffer
- Continuous-flow BVAD: feasible and reliable?
  E. Potapov
- LVAD hemodynamic optimization
  N. Uriel

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 5

13.30-14.30 Lunch MCS Symposium II
Chairs: C. Mahr, L. Klein, M. Pilato
- LVAD therapy: long-term outcomes and challenges
  R. Kormos
- LVAD adverse events: still a debate
  U. Jorde
- Adult LVAD systems reliability for pediatric population
  A. Lorts
- LVAD concept as monitoring system
  F. Moscato
- Telemonitoring and smart systems
  L. Klein

14.30-15.30 Invited lectures
Hemocompatibility
Chairs: G. Wieseltihealer, 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. Schloeglhofer

15.30-16.30 Selected abstracts 4
Hemocompatibility
Chairs: J. Karimov, U. Kerchcher, A. Iacovoni

16.30-17.00 Coffee & Poster exhibition 6

17.00-17.30 Keynote lecture IV
European Space Agency Projects
T. Ghidini

17.30-18.00 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

18.00-19.00 Selected abstracts 5
Long-term VAD & TAH
Chairs: D. Timms, M. Masetti, G. Di Giomarco

20.30 Conference Dinner (Awards)
OCTOBER 23

08.00-09.00 Invited lectures  
**PEDIATRICS**  
Chairs: G. Gargiulo, C. Pace Napoletone, A. Lorts

- 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 6  
**PEDIATRICS**  
Chairs: M. Schweiger, L. Galletti, E. Angeli

10.00-10.30 Rapid fire / Poster  
**PEDIATRICS**  
Chairs: M. Schweiger, L. Careddu, E. Pilato

10.30-11.00 Coffee & Poster exhibition 7

11.00-11.30 Keynote lecture V  
Chairs: A. LORTS, M. PADALINO, J. KARIMOV  
History and innovations in pump development for congenital heart disease  
K. Dasse

11.30-12.00 Invited lectures  
**SIMULATION**  
Chairs: M. SLEEPER, G. TANSLY

- 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

12.00-13.00 Selected abstracts 7  
**SIMULATION**  
Chairs: M. GRANEGGER, G. TANSLY

13.00-13.30 Poster exhibition 8

13.30-14.30 Lunch MCS symposium III  
Chairs: N. Uriel, I. Netuka, 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

14.30-15.00 Keynote lecture VI  
**NEUROPROSTHETICS AND BIONICS, FROM FICTION TO SCIENCE**  
Chairs: F. Moscato, T. Masuzawa

15.00-15.40 Invited lectures  
**SMART PUMPING, MONITORING, CONTROL**  
Chairs: H. Schima, F. Consolo, A. Di Molfetta

- Exercise limits in LVAD patients: insight from haemodynamic simulations  
  L. Fresiello
- In-vitro modelling for pump control evaluation: strengths and limitations  
  S. Gregory
- Elimination of driveline: percutaneous energy transmission projects  
  G. Wieseltihaier
- New Technologies and wearables for MCS  
  M. SLEEPER

15.40-16.40 Selected abstracts 8  
**SMART PUMPING, MONITORING, CONTROL**  
Chairs: J. Karimov, F. Consolo, A. Di Molfetta

16.40-17.00 Coffee & Poster exhibition 9

17.00-18.15 Invited lectures  
**DEVICES UPDATE**  
Chairs: J. Long, M. Ono, M. Baiocchi

18.15-18.30 Closing ceremony  
A. Loforte, A. El Banayosy
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 (Pittsburgh, PA, USA)
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)
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)
A. Di Molfetta (Rome, Italy)
S. Drakos (Salt Lake City, UT, USA)
A. El Banayosy (Oklahoma City, OK, USA)
G. Faggian (Verona, 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 (Milan, Italy)
M. Granegger (Zurich, Switzerland)
S. Gregory (Melbourne, Australia)
F. Grigioni (Rome, Italy)
A. Hasan (Newcastle, UK)
C. Hayward (Sidney, Australia)
R. Hetzer (Berlin, Germany)
A. Iacovoni (Bergamo, Italy)
U. Jorde (New York City, USA)
J. Karimov (Cleveland, OH, USA)
T. Kaufmann (Aachen, Germany)
U. Kertscher (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. Martin-Suarez  (Bologna, Italy)  
M. Masetti  (Bologna, Italy)  
M. Massetti  (Rome, Italy)  
T. Masuzawa  (Ibaraki, Japan)  
B. Meyns  (Leuven, Belgium)  
S. Micera  (Pisa, Italy)  
P. Mohacsi  (Bern, Switzerland)  
A. Molteni  (London, UK)  
A. Montalto  (Rome, Italy)  
D. Morales  (Cincinnati, OH, USA)  
M. Morshuis  (Bad Oeynhausen, Germany)  
F. Moscati  (Vienna, Austria)  
T. Motomura  (Houston, TX, USA)  
F. Musumeci  (Rome, Italy)  
I. Netuka  (Prague, Czech Republic)  
M. Ono  (Tokyo, Japan)  
A. Ouattara  (Bordeaux, France)  
C. Pace Napoletane  (Turin, Italy)  
D. Pacini  (Bologna, Italy)  
M. Padalino  (Padua, Italy)  
F. Pappalardo  (Milan, Italy)  
E. Pilato  (Naples, Italy)  
M. Pilato  (Palermo, Italy)  
E. Potapov  (Berlin, Germany)  
L. Potena  (Bologna, Italy)  
A. Redaeli  (Milan, Italy)  
M. Rinaldi  (Turin, Italy)  
C. Russo  (Milan, Italy)  
D. Saeed  (Dusseldorf, Germany)  
H. Schima  (Wien, Austria)  
T. Schlöglhofer  (Wien, Austria)  
J. Schmitto  (Hannover, Germany)  
S. Schueler  (Newcastle, UK)  
M. Schweiger  (Zurich, Switzerland)  
S. Sciachetti  (Palermo, Italy)  
T. Siess  (Danvers, MA, USA)  
C. Sivathasan  (Singapore)  
M. Slaughter  (Louisville, KY, USA)  
M. Slepian  (Tucson, AZ, USA)  
S. Sonntag  (Aachen, Germany)  
U. Steinseifer  (Aachen, Germany)  
K. Sunagawa  (Kyushu, Japan)  
G. Tansley  (Griffith, Australia)  
V. Tarzia  (Padua, Italy)  
D. Taylor  (Houston, TX, USA)  
D. Tchantchaleishvili  (Philadelphia, PA, USA)  
D. Timms  (Houston, TX, USA)  
S. Tsui  (Cambridge, UK)  
T. Tsukiyama  (Osaka, Japan)  
N. Uriel  (Chicago, IL, USA)  
C. VanderPluym  (Boston, MA, USA)  
R. Westenfeld  (Dusseldorf, Germany)  
G. Wieselti  (San Francisco, CA, USA)  
D. Zimpfer  (Vienna, Austria)  

**VAD Coordinator Faculty**  
J. Beckman  (Seattle, WA, USA)  
T. Berg  (Aachen, Germany)  
F. Kaufmann  (Berlin, Germany)  
H. Moody  (Louisville, KY, USA)  
S. Schroeder  (Lincoln, NE, USA)  
A. Thomas  (Portland, OR, USA)
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

ISMCS Member
**Early Registration**
€ 350,00 + VAT (€ 427,00 VAT included)

**Late Registration**
€ 450,00 + VAT (€ 549,00 VAT included)

ISMCS NON Member
**Early Registration**
€ 400,00 + VAT (€ 488,00 VAT included)

**Late Registration**
€ 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)
Physicians
€ 120,00 + VAT (€ 146,40 VAT included)

Nurse/Engineer
€ 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 at 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.

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.)
The ISMCS Congress Committee invites participants to submit abstracts of original and unpublished works for oral, poster and/or rapid fire presentations. All abstracts must be formally submitted via the online abstract submission system. To submit an abstract, fill in the form at www.noemacongressi.it and follow the instructions.

**Submission deadline**
June 14, 2019 (Fri) 11.59 pm Italian time (GMT +1)
Abstracts received after this date will not be accepted.

**Language:** English only

**Types of Presentation**
All authors should be prepared to do an oral or poster presentation. However, if you would like to be excluded from oral presentations, please check the appropriate box in the Abstract Submission Form.

The Scientific Program Committee of the ISMCS 2019 reserves the right to assign a different presentation format from the one selected by the presenting author.

- **Free Paper Presentation:** a selection of abstracts will be accepted for oral presentation during the Free Paper sessions. Presenters will be given 8 minutes to present their research findings and 2 minutes for discussion.
- **Poster Presentation:** participants are also encouraged to submit their work as a poster presentation that promotes direct exchange of ideas between presenter and delegates. Posters will be set up in a dedicated area.

**Abstract Receipt Confirmation**
Upon successful submission, authors will receive an automated acknowledgment via email. Lack of acknowledgment will indicate that the abstract was not received.

**Notification of Acceptance**
The Presenting Author of each abstract accepted for publication will be notified by email by the end of July, 2019. If the presenting author is unable to present the abstract, a co-author can take his/her place.

**Withdrawal**
Submitted abstracts cannot be withdrawn unless with valid reason(s) approved by the Scientific Committee.

**Originality of Abstracts**
Submitted abstracts must describe unpublished work.

**Publication**
Abstracts will be published exactly as submitted. Any abstract considered unsuitable for reproduction will not be published. In cases of abstracts with extremely poor English, the Abstract Selection Committee reserves the right to modify the submitted text. The Abstract Selection Committee however will make every effort in these instances not to alter the meaning of the text and will contact the submitting authors prior to publication.

All abstracts accepted for presentation (either oral or poster) will be published only if payment of registration has been made by September 6, 2019.

All accepted abstracts will be encouraged to send a full manuscript for Artificial Organs ISMCS Official Journal.
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 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
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.