#### **Course Directors**

Massimo Lombardi (Milan, I)

(co-Director)

Juerg Schwitter (Lausanne, CH)

(co-Director)

Emanuela Valsangiacomo Buechel (Zurich, CH)

# **Faculty**

Martin Graves Cambridge (GB) Andreas Greiser Erlagen (DE) Simon Greulich Tübingen (DE) Massimo Lombardi Milan, (I) Pier Giorgio Masci Lausanne (CH) James Moon London (GB) Vivek Muthurangu London (GB) Juera Schwitter Lausanne (CH) Emanuela Valsangiacomo Buechel Zurich (CH)

# Language information

English will be the official language. Simultaneous translation will not be provided.

#### **Course Venue**

Grand Hotel Gardone Corso Zanardelli, 84 25083 Gardone Riviera (BS) Italy www.grandhotelgardone.it

# **Continuing Medical Education**

Attribution of European (EACCME) credits has been requested.

The Course was granted 16 Italian CME Credits.



# Registration

STANDARD REGISTRATION FEE: Euro 1.464 (VAT 22% included)

#### **AEPC JUNIOR MEMBERS REGISTRATION FEE:**

Euro 915 (VAT 22% included)

# **Sponsor**

Supported by an unrestricted educational grant by:

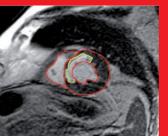


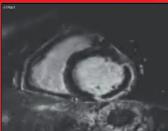
# **Organizing Secretariat**

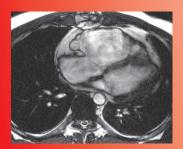


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# **2nd Level Course**

PROGRAMME

# Magnetic Resonance in Cardiology

in collaboration with the EACVI



**EACVI**European Association of Cardiovascular Imaging

Sixth Edition

Course endorsed by AEPC



Lago di Garda, Italy - October 18-20, 2018

# Thursday October 18th

13:00 Welcome and Introduction - J. Schwitter, M. Lombardi

#### **Session 1 CMR basics**

- 13:10 High level overview of MRI, e.g. nuclear magnetisation, relaxation times, equipment *M. Graves*
- 13:45 What are read-out strategies how is spatial encoding done A. Greiser
- 14:20 Basic pulse sequences used in cardiac MRI, e.g. fast spin echo, fast gradient echo, steady-state free precession segmented vs. real-time acquisitions *M. Graves*
- 15:00 How to prepare magnetization: IR / SR / for T2, for flow, and by contrast media A. Greiser

# **Session 2 Optimising imaging protocols - tips for clinical practice**

- 15:30 How to optimise morphological and cine imaging V. Muthurangu
- 16:00 How to optimise LGE images (artefacts, single shot, FIDDLE etc) P.G. Masci
- 16.30 How to optimize parametric mapping (artefacts, quality control etc) J. Moon
- 17:00 How to optimize stress imaging (protocols, artefacts, quality control etc) *J. Schwitter*

17:30 Coffee break

# Session 3 Case reading / hands-on in groups

18:00 Case reading / hands-on in groups on the workstations to familiarize with workstation, to learn to analyze images, function, late gadolinium, T2 images, flow images - (All)

20:00 Dinner

# Friday October 19th

#### **Session 4 Adult Heart Disease**

- 08:30 CMR in acute and chronic CAD Protocols, workflow, reporting and cases S. Greulich
- 09:00 Cardiomyopathies I (HCM, Hypertensive cardiomyopathy, iron overload, amyloidosis, Fabry) *J. Moon*
- 09.45 CMR in cardiomyopathies. Protocols, workflow, reporting and cases P.G. Masci

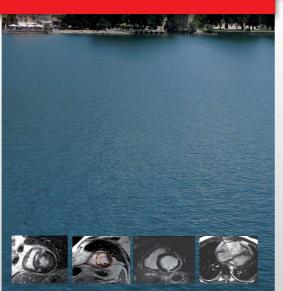
10:30 Coffee break

### **Session 5 Congenital Heart Disease 1**

- 11:00 Tricks and tips for imaging CHD guidelines / reference literature E. Valsangiacomo Buechel
- 11:30 Imaging Pathophysiology / shunts V. Muthurangu
- 12:00 Tetralogy of Fallot E. Valsangiacomo Buechel

12:30 Lunch break





#### **Session 6 Congenital Heart Disease 2**

- 13.30 How to accurately assess aortic and pulmonary valve disease? V. Muthurangu
- 14.00 Transposition of the great arteries E. Valsangiacomo Buechel

#### Session 7 Technical advancement and clinical perspective

- 14.30 Pitfalls of phase/flow imaging, effect of segmented k-space PC, Eddy Currents, etc. *M. Graves*
- 15.00 4Dflow: from concept to clinical applications A. Greiser
- 15.30 Optimizing CMR in patients with MR conditional devices J. Schwitter
- 16:00 Coffee break

#### **Session 8 Adult Heart Disease**

- 16.30 CMR in stable CAD Advanced protocols (high resolution/3D perfusion, 1.5T vs 3.0T, Accelerated Imaging, BOLD) *M. J. Graves*
- 17:00 Myocarditis S. Greulich
- 17.30 Cardiomyopathies II (Non compaction, dilated cardiomyopathy, Tako Tsubo) *J. Moon*

# **Session 9 Congenital Heart Diseases 3**

Complex Congenital

- 18:10 Complex imaging in CHD\_ Pulmonary Hypertension, etc *V. Muthurangu*
- 18.40 Hands-on CHD: clinical cases E. Valsangiacomo Buechel
- 20:00 Departure social event

# Saturday October 20th

#### Session 10 CMR in the clinical arena

- 09:00 Tricks and tips for CMR in Cardiology guidelines/ class of evidence / reference literature/cost effectiveness *J. Schwitter*
- 09:30 Arrhythmogenic Right Ventricular Dysplasia reality and pitfalls M. Lombardi
- 10.00 Coffee break
- 10.30 Cardiac masses and pericardium P.G. Masci

# Session 11

- 11.15 Expert panel on practical problems in Adult (3 cases,) Pier Giorgio Masci and Congenital Heart Disease (3 cases) V. Muthurangu
   Cases from the panel and cases from the attendees
- 11.45 Very difficult cases (All)
- 12:45 Administration of questionnaire for Italian participants (CME credits)

13:00 Closing remarks



