

# FACULTY

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Department of Physiology,  
Erasmus Campus of The Free  
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## DAVID SYSTROM (live from Boston)

Pulmonary and Critical Care Medicine Division  
at Brigham and Women's Hospital, Boston

## WALTER ZAGGIA

Technical Manager, Sesto Fiorentino (FI)

## DATE AND COURSE LOCATION

April, 7<sup>th</sup>/8<sup>th</sup> 2016  
IRCCS Policlinico San Donato  
Aula Magna  
Piazza Edmondo Malan, 2  
San Donato Milanese (MI)

## SCIENTIFIC SECRETARIAT

Marco Guazzi - Centro E. Malan  
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## ACCREDITATION (Continuing Medical Education)

The 4<sup>th</sup> THEORETICAL AND PRACTICAL COURSE: APPLICATIONS AND DEVELOPMENT OF CARDIOPULMONARY TEST AND STRESS ECHOCARDIOGRAPHY IN CARDIOLOGY is accredited for the Continuing Medical Education and training plan.

The Congress is accredited for 30 participants and will give the following credits: 18,4

Categories: Physicians (all professions), Nurse, Physiotherapist, Radiology Technician, Residents and Fellows in training.  
In compliance with CME guidelines, fellows and other medical professions are not allowed to claim credits.

## How to obtain credits:

collect your CME documents upon registration; 100% presence during the Scientific Program. CME documentation, filled in and signed, must be returned to the Secretariat Desk at the end of the Congress.  
We remind you that credits will be granted only after the Congress. CME scientific members will only validate questionnaires with at least 75% correct answers.

## REGISTRATION FEES

- Registration Euro 530,00 (VAT included) for Physicians (included Admission to all theoretical and practical sessions, congress materials, lunches, hotel accommodation - 1 night)
- Social Dinner 50,00€ (VAT excluded). We kindly require a confirmation
- Free for Nurses, Physiotherapists, Radiology Technicians, Residents and Fellows in training.

VAT NON APPLIED FOR FOREIGN ATTENDEES

For any information or clarification about registration fees and requirements please call SUMMEET S.r.l. (+39 0332 231416) or email info@summeet.it

## Cancellation policy:

Cancellation must be notified to the Commissioning Secretary, SUMMEET, in written form only. If the cancellation is communicated before March, 15<sup>th</sup> 2016, 30% of the Registration fee will be refunded. After that date, no refund will be possible.  
Registration is required for all congress participants.

Registration can be sent to SUMMEET S.r.l. by fax (+39 0332 317748) or via e-mail (info@summeet.it), by and no later than March 15<sup>th</sup>, 2016.

## COMMISSIONING SECRETARY

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UNIVERSITÀ  
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DI MILANO



I.R.C.C.S.  
POLICLINICO SAN DONATO

# The 4<sup>th</sup> THEORETICAL AND PRACTICAL COURSE: APPLICATIONS AND DEVELOPMENT OF CARDIOPULMONARY TEST AND STRESS ECHOCARDIOGRAPHY IN CARDIOLOGY



April, 7<sup>th</sup>/8<sup>th</sup> 2016  
IRCCS Policlinico San Donato

# RATIONALE OF THE COURSE

The main idea behind is to increase the awareness on CPX proposing also its combined use with Stress Echocardiography.

Specific Course objectives will be:

To recognize and interpret the pathophysiological bases of functional limitation in cardiac patients

To combine gas exchange analysis phenotypes with left and right cardiac hemodynamics

To make the test interpretation and reports uniform across laboratories, as proposed in the 2012 EACPR/AHA CPX Statement and 2015 update.

To identify future common area of research and development

These aims would likely help to place CPX under its most modern view and, hopefully, comprehensive and appealing settings, making the Cardiological community more sensitive to the clinical and research implications of the test.

## THURSDAY, APRIL 7 THEORY AND PRACTICE

12.30 - 01.30 pm  
Buffet and Registration

01.30 - 01.40 pm  
Introduction to the course (*M. Guazzi*)

01.40 - 02.00 pm  
Cardiopulmonary Test in Cardiology – Update 2016 (*M. Guazzi*)

02.00 – 03.40 pm  
Principles and physiological bases of physical performance: Cardiac output and O<sub>2</sub> extraction (*M. Marzorati*)

LV-RV and lung interdependence: parallel vs series (*R. Naeije*)


The dynamic of ventilatory response (*F. Di Marco*)

03.40 - 04.00 pm  
Questions

04.00 - 04.30 pm  
Break

04.30 - 05.00 pm  
The combination of cardiopulmonary test and stress echo: methodology and technical implications (*F. Bandera*)

05.00 - 05.30 pm  
Technical bases: principles of calibration and data validation (*W. Zaggia*)

05.30 - 06.00 pm  
 Live Connection with Brigham and Woman Hospital Advanced CPET Laboratory  
*D. Systrom (Boston USA):*  
CPET-invasive hemodynamic study  
Discussants: *R. Naeije, M. Guazzi*

08.30 pm  
Social Dinner

## FRIDAY, APRIL 8 MORNING SESSION - I CLINICAL CASES

08.30 - 11.00 am  
Live Connection with Cardiopulmonary Laboratory and Imaging: 2 combined CPET-Echo tests.  
Discussants: *M. Guazzi, R. Naeije*

11.00 - 11.30 am  
Coffee break

11.30 - 12.30 am  
The report and clinical cases

### Mini-Symposium

The assessment of expired gases in heart disease: future developments and applications  
Moderators: *S. Ghio, A. Mezzani*

02.00 - 02.20 pm  
Test utility in the assessment of congenital heart disease (*A. Mezzani*)

02.20 - 02.40 pm  
Analysis of expired gases: an added value in the assessment and therapeutic approach of ischemic patient (*R. Belardinelli*)

02.40 - 03.00 pm  
Cardiopulmonary exercise testing in heart failure preserved ejection fraction: increasing evidence (*M. Guazzi*)

03.00 - 03.20 pm  
Cardiopulmonary testing and end-points: time for multi-center trials? (*U. Corrà*)

03.20 - 03.40 pm  
Coffee break

Stress echocardiography and analysis of expired gases: a world to discover  
Moderators: *R. Berardinelli, U. Corrà*

04.00 - 04.20 pm  
Mitral dynamic regurgitation: how to measure it and what phenotypes (*F. Bandera*)

03.40 - 04.00 pm  
Determinants of functional capacity: right heart pulmonary circulation coupling (*R. Naeije*)

04.20 - 04.40 pm  
Cardiopulmonary exercise testing or pharmacological echo in the assessment of pulmonary arterial hypertension? (*S. Ghio*)

04.40 - 05.00 pm  
Questions

05.00 - 05.20 pm  
Take home messages and closing remarks (*M. Guazzi*)