



SPECIFIC
COURSE
OBJECTIVES
WILL BE:

1.

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

2.

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

3.

To propose the advanced use of 3D echo

4.

To make the test interpretation and reports uniform across laboratories, as proposed in the 2012 EACPR/AHA CPET Statement and 2016 update

5.

To identify future common area of research and development

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



UNIVERSITÀ DEGLI STUDI
DI MILANO

April 5th/6th, 2018
Aula Magna
IRCCS Policlinico San Donato
Piazza Edmondo Malan, 2
20097 San Donato Milanese (MI)

SCIENTIFIC SECRETARIAT

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14 CREDIT ECM

April 5th - 6th 2018

**6th
THEORETICAL
AND
PRACTICAL
COURSE:**

APPLICATIONS AND DEVELOPMENTS OF

cardiopulmonary test

AND STRESS ECHOCARDIOGRAPHY IN CARDIOLOGY

Day 1, April 5th

11.00 Registration

11.15 Introduction to the course (*M. Guazzi*)

11.15 – 12.45 How to session 1

Group A - CPET made easy: general overview and evaluation of normal subject – practice in the lab

Group B - Focus on the Right Ventricle - RV and exercise: how to evaluate it – practice with workstation and 3D simulation.

12.45 – 13.30 Lunch

13.30 – 15.00 How to session 2

- Group B - CPET made easy: general overview and evaluation of normal subject – practice in the lab

- **Group A** - Focus on the Right Ventricle - RV and exercise: how to evaluate it – practice with workstation and 3D simulation

15.00 – 15.30 Principles and physiological bases of physical performance: cardiac output and O₂ extraction (*M. Guazzi*)

15.30 – 16.00 Limitation of exercise performance by valvular heart disease (*J. Magne*)

16.00 – 16.30 Exercise ventilation and pulmonary hemodynamics in cardiac patients (*M. Guazzi*)

16.30 – 17.30 Live Connection with Brigham and Woman



Hospital Advanced CPET Laboratory

D. Systrom (Boston USA):

CPET-invasive hemodynamic study

Discussants: *HJ. Bogaard, M. Guazzi*

17.30 – 18.00 Coffee Break

18.00 – 18.40 The combination of cardiopulmonary test, stress echo and advanced imaging: methodology and technical implications (*F. Bandera*)

20.30 Social dinner



Day 2, April 6th

8.30 – 09.00 Lecture: Exercise echocardiography in valvular heart disease: what are the next steps? *J. Magne*

09.00 – 10.00 Live Connection with Cardiopulmonary Laboratory and Imaging: 1st combined CPET-Echo test
Discussants: *M. Guazzi, J. Magne*

10.00 – 10.45 Lecture: Imaging of the Right Heart at Rest and during Exercise (*HJ. Bogaard*)

10.45 – 11.15 Coffee Break

11.15 – 12.15 Live Connection with Cardiopulmonary Laboratory and Imaging: 2nd combined CPET-Echo test
Discussants: *M. Guazzi, HJ. Bogaard, J. Magne*

12.15 – 13.00 Lecture: Inflammation, endotoxins and cachexia: a relevant puzzle in the physical limitation of advanced HF (*P. Colombo*)

13.00 – 14.00 Lunch

14.00 – 15.30 Mini-symposium:

The assessment of expired gases in heart and lung diseases: future developments and applications. Moderators: *S. Ghio, P. Colombo*

1. COPD and heart failure comorbidity: exercise phenotypes and new drugs for treating expiratory limitation (*F. Di Marco*)

2. Analysis of expired gases: an added value in the assessment and modern therapeutic approach of ischemic heart disease (*M. Guazzi*)

3. Cardiopulmonary testing applications in LVAD

- The European perspectives (*U. Corrà*)

- The U.S. perspectives (*M. Yuzefpolskaya*)

4. Exercise limitation in HFrEF: insights on use of neprilysin inhibitors (*V. Labate*)

15.30 – 15.45 Coffee Break

15.45 – 17.15 Stress echocardiography and analysis of expired gases: a world to discover. Moderators: *M. Yuzefpolskaya, U. Corrà*

1. Determinants of functional capacity: right heart pulmonary circulation coupling (*HJ. Bogaard*)

2. CPET or RV imaging in pulmonary arterial hypertension: what is the key for the management? (*S. Ghio*)

3. CPET and atrial fibrillation: pathophysiology and therapeutic insights on NAO (*F. Bandera*)

REGISTRATION FEES

Education and training plan.

€ 530

INCLUDING:

- Admission to theoretical and practical sessions
- Congress materials
- Lunches
- 1 night hotel accommodation
- Social dinner

€ 450

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- Admission to theoretical and practical sessions
- Congress materials
- Lunches
- Social dinner

**For Residents and Fellows in training:
halved fee € 260,00**

(VAT NOT APPLIED FOR
FOREIGN ATTENDEES)

PER I PARTECIPANTI ITALIANI

- CARDIOLOGIA MALATTIE DELL'APPARATO RESPIRATORIO
- MEDICINA DELLO SPORT
- MEDICINA DEL LAVORO E SICUREZZA DEGLI AMBIENTI DI LAVORO

14 crediti ECM

OBIETTIVO FORMATIVO

Contenuti tecnico-professionali (conoscenze e competenze) specifici di ciascuna professione, di ciascuna specializzazione e di ciascuna attività ultraspecialistica

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