

-INFORMATION FOR PARTICIPANTS - 3

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ETTORE MAJORANA FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE

SCIENTIFIC AND TECHNOLOGICAL ADVANCEMENTS
IN CARDIAC AND VASCULAR SURGERY

INTERNATIONAL SCHOOL OF CARDIAC SURGERY
INTERNATIONAL SCHOOL OF SOLID STATE PHYSICS
ERICE - 30 APRIL - 6 MAY 2015

PURPOSE OF THE COURSE

This interactive and translational Course, jointly organized by the Int. School of Cardiac Surgery (6th Course) and the Int. School of Solid State Physics (67th Course), is designed to convey the experience of an interdisciplinary Faculty in providing a comprehensive survey of the influence of ongoing basic sciences research in determining the advancements of the present and the future of cardiovascular surgery. The topics will include nanotechnology, materials, tissue engineering, tissue and whole organs decellularization and recellularization processes, biological and synthetic scaffolds, cell stem therapy, fluidodynamics, computational models, 3D modelling and bioprinting, novel applications of magnetic resonance techniques, updates in artificial heart technology etc. These topics will be highlighted, appraised and discussed in depth, so that upon completion of the Course participants will have had the opportunity to gain a thorough knowledge of the state of the art of the most innovative scientific and technological advances that are shaping the clinical evolution of the specialty.

ABSTRACTS SUBMISSION

The organising committee welcomes abstracts for oral or poster presentations regarding topics consistent with the general themes of the Course. An entire session of the meeting will be dedicated to this purpose. Participants wishing to present a paper during the meeting should send an abstract not later than March 15, 2015 to the following e-mail address : hugin@iol.it
Notice of acceptance of the papers selected for presentation will be sent via e-mail by March 30, 2015.

APPLICATIONS

Persons wishing to attend the Course should send an application, preferably by electronic mail, to:
Prof. Ugo Filippo Tesler, hugin@iol.it
Specifying:
i) Date and place of birth together with present nationality
ii) Present position and place of work

ACCOMODATION AND FACILITIES

There are living quarters in three renovated monasteries for people attending the Courses at the Centre. In addition to the rooms in the three structures, some participants may be housed in local hotels, depending upon the size of the group, and whether there are parallel activities taking place.

Meals are provided at a variety of local restaurants.

ARRIVAL AND DEPARTURE

There are many flights from Rome and from Milan to Palermo. Also, there are a few flights to the Airport of Trapani Birgi which is closer to Erice.

On the official arrival day, transportation from Palermo airport to Erice will be provided by the Ettore Majorana Centre.

Our bus will be available at Palermo airport on the afternoon of your arrival day until 5 p.m., to drive you to Erice.

Participants arriving at Palermo airport should look for the Ettore Majorana meeting point inside the terminal at the arrival gate where the Ettore Majorana Centre driver will be waiting. Transportation will be provided also for participants arriving at Trapani Birgi Airport. On the official day of departure, transfer to Palermo and to Trapani Birgi airports will be provided by the Centre.

Participants must communicate their arrival and departure times and flight numbers well in advance of their arrival in order to organise their transfer to the airports.

ACCOMPANYING PERSONS

It is necessary for those participants who would like to be accompanied by members of their families to contact the Organizers well in advance of their arrival. Accommodation is limited and priority will be given to the first-comers.

REGISTRATION FEE

The fee for attending the 2015 Course of the "International School of Cardiac Surgery

and of Solid State Physics" is Euro 700 per participant.

The course "fee", besides the scientific sessions, includes housing, meals, airport transfers and all social activities associated with the Centre during your stay in Erice.

PAYMENT OF FEE

The fee should be paid in advance by bank transfer into the following account:

HOLDER: Fondazione Ettore Majorana e Centro di Cultura Scientifica

Via Guarnotta 26 - 91016 Erice, Italy

BANK: Unicredit Private Banking S.p.A.

BRANCH NAME: 07858 - TRAPANI

STREET: Via Garibaldi 9 - 91100 Trapani, Italy

IBAN IT 47 I 02008 16407 000600000655

BIC SWIFT: UNCRITM158X

Transfer Amount: 700 Euro/person

Reason for payment: Name of the participant, INTERNATIONAL SCHOOL OF CARDIAC SURGERY

/ INTERNATIONAL SCHOOL OF SOLID STATE PHYSICS

SCIENTIFIC AND TECHNOLOGICAL ADVANCEMENTS IN CARDIAC AND VASCULAR SURGERY
30/04/15-6/05/2015

Please be sure that your name appears on the receipt that you will be requested to present upon your arrival in Erice.

The fee can be paid, alternatively in Erice, upon registration:

i) in cash; ii) with travellers cheques; iii) with Eurocheques

PLEASE NOTE

Participants must arrive in Erice on Thursday, April 30, not later than 5 p.m.

More information about the "Ettore Majorana" Foundation and Centre for Scientific Culture can be found on the web site: **ccsem.infn.it**

PROGRAMME

TITLES AND LECTURERS

- Transfer of new technology from bench to clinical practice.

A. Lansky, Yale University Medical School, New Haven, CT, USA

- Stem cell therapy for cardiac disease.

P. Menasché, European Hospital George Pompidou, Paris, FR

- Regenerative medicine for the heart.

S. Hoerstrup, University Hospital, Zurich, CH

- New advances in myocardial infarction therapy: the regeneration approach.

G. Esposito, University of Naples, Naples, IT

- Techniques of tissue and organ decellularization and repopulation by induction of pluripotent stem cells. Biological and synthetic scaffolds for cardiac repair.

L. Iop, University Hospital, Padova, IT

- Vascular Tissue Engineering using Biodegradable, Synthetic, Nano Scaffolds.

B. Walpoth, University Hospital, Geneva, CH

- From engineering to medicine and back: the physiology of mechanical circulation.

B. Biocina, University Hospital, Zagreb, HR

- Is surgical pathology of the heart also molecular?

G. Thiene, University Hospital, Padova, IT

- From miniminvasive to robotic and to transcatheter procedures. Where are we heading?

M. Diena, Policlinico di Monza, Clinica San Gaudenzio, Novara, IT

- How do advanced technologies assist in treating complex cardiac arrhythmias?

Learning from the past to improve the future.
S. Ernst, Royal Brompton and Harefield NHS Foundation Trust, London, UK

- Technological advancement for the surgical treatment of atrial fibrillation.

A. Fumero, San Raffaele Hospital, Milano, IT

- Lessons from mock circulation for mechanical assistance.

C. Bowles, Royal Brompton and Harefield NHS Foundation Trust, Harefield, UK

- Aorta biomechanics: anatomical-physical characteristics with special reference to aortic aneurysm and dissection.

H. Muresian, University Hospital, Bucharest, RO

- Personalised external aortic root support.

J. R. Pepper, Royal Brompton and Harefield Foundation Trust, London, UK

T. Golesworthy, Exstent Ltd, Tewkesbury, UK

- Development of Aortic Surgery simulators.

M. Turina, University Hospital, Zurich, CH

- A re-examination of chronic counterpulsation.

C. Bowles, Royal Brompton and Harefield NHS Foundation Trust, Harefield, UK

- Intra-aortic pump for heart failure: from bench experiments to bedside patient management.

A. Khir, Brunel University, London, UK

- Degenerative Mitral Regurgitation is a Congenital lesion. A Critical Analysis.

F. Wells, Papworth Hospital, Cambridge, UK

- Functional structures of the mitral valve and the future of mitral valve plasty.

H. Muresian, University Hospital, Bucharest, RO

- Cognition guided heart surgery.

Computer-assisted mitral valve analysis by optical tracking system – a new quantitative approach to mitral valve reconstruction.
I The surgeon's vision.

R. De Simone, University Hospital, Heidelberg, DE

- Cognition heart surgery. II The role of computer

science.

I. Wolf, Institute of Computer Science, Mannheim, DE

- Non invasive imaging for the stratification of patients with left ventricular dysfunction candidate for coronary revascularisation.

P. Camici, San Raffaele Hospital, Milano, IT

- Myocardial ischemia beyond epicardial stenosis.

P. Camici, San Raffaele Hospital, Milano, IT

- Magnetic resonance analysis.

of intraventricular fluidodynamic forces.

M. Lombardi, Policlinico San Donato, Milano, IT

- Total artificial heart: actuator, biocompatibility, 3D fitting, biocompatible materials.

G. Gerosa, University Hospital, Padova, IT

- Magnetic resonance versus nuclear medicine for tissue characterisation.

T. Khouri, Policlinico di Monza, Monza, IT

- Innovations in echocardiography.

From magnetic tape to live streaming.

G. Cerin, Policlinico di Monza, Clinica

San Gaudenzio, Novara, IT

- Renal denervation therapy: clinical applications.

F. Scalise, Policlinico di Monza, Monza, IT

- Cardiovascular regenerative bioengineering.

M.T. Raimondi, Politecnico di Milano, Milano, IT

- Which is the role of myocardial trabeculae?

M. L. Costantino, Politecnico di Milano, Milano, IT

- Numerical simulation for the planning of surgical procedures.

G. Dubini, Politecnico di Milano, Milano, IT

- Technological innovations for coronary stents.

F. Migliavacca, Politecnico di Milano, Milano, IT

- Innovations in cardiac devices.

A. Baumbach, University Hospital, Bristol UK

- Is there a future for Xenografts?

M.L. Lavitrano, University of Milano–Bicocca, Milano, IT

- The vulnerable atherosclerotic plaque – improved management by cooperation between Radiology, Laboratory and Nano-Medicine.

H. Mangge, Dept. of Laboratory Medicine, Medical University of Graz, A

- In-vivo imaging with luminescent nano-particles emitting in the second biological window.

A. Vedda, University of Milano–Bicocca, Milano, IT

- Nanotechnology for treatment of Cardiovascular Diseases.

M. Masserini, University of Milano–Bicocca, Milano, IT

THE “ETTORE MAJORANA” FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE

The “Ettore Majorana” Foundation and International Centre for Scientific Culture (EMFCSC) is situated in the old pre-mediaeval city of Erice where three restored monasteries (San Rocco, San Domenico and San Francesco) offer an appropriate setting for high intellectual endeavor besides providing living quarters for Faculty Members and Participants to the Course. These ancient buildings are now named after great Scientists and strong supporters of the “Ettore Majorana” Centre.

Since the establishment of the Centre in 1962 by Professor Antonino Zichichi with the International School of Subnuclear Physics, the Centre has grown over the years and now embraces over 120 Schools, covering all fields of Science.

S. BROVELLI (ISSSP), J.R. PEPPER, M.TURINA (ISCS)
DIRECTORS OF THE COURSE

G.BENEDEK (ISSSP), U. F. TESLER (ISCS)
DIRECTORS OF THE SCHOOL

A. ZICHICHI
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