



«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
TO PAY A PERMANENT TRIBUTE TO ARCHIMEDES AND GALILEO GALILEI, FOUNDERS OF MODERN SCIENCE  
AND TO ENRICO FERMI, THE "ITALIAN NAVIGATOR", FATHER OF THE WEAK FORCES



# INTERNATIONAL SCHOOL OF MEDICAL SCIENCES

*Directors: Prof. Ignazio Carreca, Prof. Antonino Zichichi*

**155<sup>th</sup> Course**

## THE NEW ERA OF LABORATORY MEDICINE: FROM DIAGNOSIS TO CLINICAL MANAGEMENT

*Directors: Prof. Marcello Ciaccio, Prof. Francesco Salvatore*



**ERICE - TRAPANI - SICILY**  
**30 - 31 May, 2018**

**In a remote corner of Europe the University of the Third Millennium with a science without secrets and without frontiers is born.**

On 8 May, 1962, in Geneva, Bell, Blackett, Rabi, Weisskopf and Zichichi, signed the charter constitution of the «Ettore Majorana» Foundation and Centre for Scientific Culture that gave new meaning to Science and its culture. Every year since its establishment, authors of new discoveries and inventions come to Erice; 85 of them were awarded the Nobel Prize after their participation to the EMFCSC activities and 49 were already Nobel laureates. These scientific world leaders teach to students from all over the world who are eager to receive the latest knowledge directly from the mouth of its authors, just as was done in the University of Bologna more than nine centuries ago. In the course of its years of activity, over 120.000 scientists from one hundred forty Nations have taken part in post-university activities to promote a Science without secrets and without borders. This scientific community has sought to beat down ideological, political and racial barriers that were invented not by Science, but by its worst enemies. The existence of a scientific community as vast as Erice is a concrete demonstration that Science's new role has already become a reality. To do Science means to unveil the fundamental logic of nature. The application of great scientific discoveries has always slipped out of the control of Science. This is why technological development almost always conflicts with the values that inspire Science: love for Creation, respect for life and promotion of human dignity. 'Science and Faith are both gifts of God', said John Paul II. No one has ever before had the courage to put the dignity of Science and Faith on the same pedestal. The new role of Science is born from this truth.

# PURPOSE OF THE COURSE

The purpose of the course is to describe the applications of new discoveries in Laboratory Medicine, with special emphasis on Precision Medicine, cancer, cardiovascular diseases, molecular diagnostics, neurosciences. The common thread will be the integration of biochemical information with the clinical and anamnestic one in order to improve patients outcome. Nowadays Laboratory Medicine has a key role in health care process, from screening and diagnosis, to the definition of prognosis and management of medical therapy. The challenge of Laboratory Medicine today is the integration with Clinical Medicine, being the biochemical data the expression of a clinical value, closely linked to the pathophysiological process that underlies the disease and that very often can even precede the clinical signs and symptoms. Defining a new laboratory-clinical interface represents an essential step to guarantee the best outcome for the patient.

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## SCIENTIFIC COMMITTEE

*Marcello Ciaccio, Francesco Salvatore, Chiara Bellia*

## ORGANIZING COMMITTEE

*Luisa Agnello, Giulia Bivona, Bruna Lo Sasso, Concetta Scazzone*

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### *Under the Auspices of:*



### Course

THE NEW ERA OF LABORATORY MEDICINE: FROM DIAGNOSIS TO CLINICAL MANAGEMENT

*Ettore Majorana Foundation and Centre for Scientific Culture*

- 09.00 **Opening remarks**  
**Welcome address by Authorities and Academicians**
- Round Table**
- 09.30 **Laboratory Medicine between innovation and the needs of global Health Care**  
**Discussant:** *Annalisa Manduca*  
**Participants:** *Luigi Califano (Naples), Marcello Ciaccio (Palermo), Roberto Lagalla (Palermo), Gaetano Manfredi (Naples), Mario Plebani (Padua), Tullio Pozzan (Padua), Francesco Salvatore (Naples), Guido Trombetti (Naples)*
- New applications for cardiac biomarkers**  
**Chairmen:** *Maurizio Averna (Palermo), Martina Zaninotto (Padua), Michele Mussap (Genoa)*
- 11.00 High-sensitive troponin assays: clinical advantages and algorithms  
*Mario Plebani (Padua)*
- 11.20 Cardiac biomarkers and physical exercise  
*Giuseppe Lippi (Verona)*
- 11.40 Cardiovascular outcomes of patients with Epatitis C  
*Antonio Craxi, Salvatore Petta (Palermo)*
- 12.00 Monitoring cardiotoxicity of antineoplastic agents: role of biomarkers  
*Giuseppina Novo (Palermo)*
- 12.20 Discussion
- 12.45 **Lunch**

**Emerging technologies and new cancer biomarkers**

**Chairmen:** *Ferruccio Ceriotti (Milan), Francesco Salvatore (Naples)*

- 15.00 Circulating tumor DNA: a promising biomarker in the liquid biopsy of cancer  
*Maurizio Ferrari (Milan)*
- 15.20 Liquid biopsy in the clinical management of patients with NSCLC  
*Antonio Russo (Palermo)*
- 15.40 Liquid biopsy as powerful tool for monitoring Breast and Ovarian Cancer patients  
*Ettore Capoluongo (Rome)*
- 16.00 Discussion
- 16.15 **Coffee Break**

**Omics and the diagnostic challenges of Precision Medicine**

**Chairmen:** *Marcello Ciaccio (Palermo), Francesco Curcio (Udine)*

- 16.40 Non-human genomes in humans  
*Francesco Salvatore (Naples)*
- 17.00 Application of proteomics to Systemic Amyloidosis  
*Giampaolo Merlini (Pavia)*
- 17.20 The intricate field of metabolomics for disease pathogenesis understanding:  
biomarkers and new drugs  
*Vassilios Fanos (Cagliari)*
- 17.40 Discussion

**The interface between Clinic and Laboratory Medicine in Oncology**

**Chairmen:** *Antonio Russo (Palermo), Tommaso Trenti (Modena)*

- 09.00 Pharmacogenomics in Personalized Medicine  
*Piero Sandro Tagliaferri (Catanzaro)*
- 09.20 Appropriateness and cancer biomarkers: health care issue or research area?  
*Massimo Gion (Venice)*
- 09.40 Clinical Management of Elderly people with Cancer: an Update  
*Ignazio Carreca (Palermo)*
- 10.00 Discussion
- 10.20 **Coffee Break**

**Advances in Molecular Diagnostics**

**Chairmen:** *Carlo Dionisi-Vici (Rome), Maurizio Ferrari (Milan)*

- 10.40 NIPT: a new test for pregnant women  
*Antonio Novelli (Rome)*
- 11.00 Genetic diagnosis of orphan diseases  
*Bruno Dallapiccola (Rome)*
- 11.20 Toward personalized diagnosis and therapy in cystic fibrosis:  
the contribution of ex-vivo models  
*Giuseppe Castaldo (Naples)*
- 11.40 **Discussion**

**Plenary Lecture**

12.00 Noncoding RNA genes in cancer pathogenesis  
*Carlo Croce (Columbus, OH, USA)*  
**Chairman:** *Francesco Salvatore (Naples)*

13.15 **Lunch**

**Neurosciences and Laboratory Medicine**

**Chairmen:** *Sergio Bernardini (Rome), Brigida Fierro (Palermo)*

15.00 Are we ready for an optimal use of CSF biomarkers  
for early diagnosis of Alzheimer's disease?  
*Lucilla Parnetti (Perugia)*

15.20 Tau fragments as CSF biomarkers in primary and secondary tauopathies  
*Kina Höglund (Göteborg, SE)*

15.40 Imaging markers of neurodegeneration  
*Caterina Tonon (Bologna)*

16.00 Towards an in vivo clinical biochemistry of the Mind?  
*Pietro Pietrini (Lucca)*

16.20 Discussion

17.00 **Closing remarks and end of the Course**

## REGISTRATION

Registration is free and includes admission to scientific sessions, conference materials, coffee breaks, lunch and certificate of attendance.

Hotel Accommodation: for further information, please write to [convegni@biomedia.net](mailto:convegni@biomedia.net)

## HOW TO REGISTER

All participants are kindly recommended to register via the online registration form at [www.biomedia.net](http://www.biomedia.net)

## CONTINUING MEDICAL EDUCATION (ECM only for Italian participants)

Professional Category: Biologist, Chemist, Physician, Biomedical Laboratory Technician.

In order to obtain credits, participants must attend the full educational programme (90% of the meeting) and pass the final learning test available on line on the site [www.biomedia.net](http://www.biomedia.net).

Provider: Biomedia srl

Id: 148 | nr 229607 - nr. credits: 12

## CERTIFICATE OF ATTENDANCE

A certificate of attendance will be available online after the meeting in MyLogin area on [www.biomedia.net](http://www.biomedia.net).

## OFFICIAL LANGUAGE

English and Italian

## CONGRESS VENUE

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*Course*

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*Ettore Majorana Foundation and Centre for Scientific Culture*







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ORGANISING SECRETARIAT



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