



«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 Precision Medicine and Laboratory Medicine  
*Directors: Prof. Marcello Ciaccio, Prof. Francesco Salvatore*

# 3<sup>th</sup> Course CLINICAL LABORATORY MEDICINE IN THE THIRD MILLENNIUM: CHALLENGES AND OPPORTUNITIES

*Directors of the Course:  
Prof. Marcello Ciaccio, Prof. Mario Plebani, Prof. Francesco Salvatore*



ERICE - TRAPANI - SICILY  
16-17 December 2024

un evento  
organizzato da



BIO MEDIA  
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## **PURPOSE OF THE COURSE**

Laboratory Medicine has a pivotal role in Clinical Medicine, from screening to diagnosis, prognosis, monitoring, and guiding and monitoring therapy. It is a constantly evolving branch of Medicine and technology represents the common thread. Significant progress has been achieved in the last decades, which has revolutionized the aims of Laboratory Medicine, switching from a specimen-centered to a patient-centered vision, paving the way toward Precision and Personalized Medicine.

The purpose of the Course is to discuss the critical role of Clinical Laboratory Medicine in the Third Millennium by underlying challenges and opportunities.

The main topics of the Course are health and pathological aging, artificial intelligence, and harmonization., which represent essential issues in the Medicine of the third millennium.

## SCIENTIFIC COMMITTEE

*Giuseppe Banfi  
Marcello Ciaccio  
Mario Plebani  
Francesco Salvatore*

## SCIENTIFIC SECRETARY

*Luisa Agnello  
Federica Di Maggio  
Martina Montagnana*

## ORGANIZING COMMITTEE

*Anna Maria Ciaccio  
Caterina Maria Gambino  
Rosaria Vincenza Giglio  
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degli Studi  
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*Laura Sciacovelli (Padua)*

*Paolo Simioni (Padua)*

*Tommaso Trenti (Modena)*

*Marina Turco (Palermo)*

*Francesco Vaia (Rome)*

*Paolo Villari (Rome)*

*Eustachio Vitullo (Matera)*

*Martina Zaninotto (Padua)*

- 14:00      **Opening remarks**
- Welcome address by Authorities and Academicians**
- Keynote Lecture**
- 14:30      Cholangiocytes, liver stem cells, cholangiopathies and cholangiocarcinoma:  
                 from bench to bedside  
                 *Eugenio Gaudio (Rome)*  
                 *Chair: Francesco Salvatore (Naples)*
- The landscape of aging**  
                 *Chair: Francesco Salvatore (Naples), Antonio Russo (Palermo)*
- 15:15      **New challenges of Laboratory Medicine due to population aging**  
                 *Daniela Capello (Novara)*
- 15:35      **Age-related changes in laboratory test results**  
                 *Martina Montagnana (Padua)*
- 15:55      **Preventing a chronic inflammatory disease against progressive aging:  
                 the model of rheumatoid arthritis**  
                 *Piero Ruscitti (L'Aquila)*
- 16:15      Discussion
- 16:30      *Coffee Break*
- 16:45      **Round Table**  
                 **The future of Clinical Laboratory Medicine in the healthcare and clinical  
                 research of the third millennium: promoting integrative diagnostics**  
                 *Discussant: Marina Turco*  
                 *Partecipant: Giuseppe Castaldo, Marcello Ciaccio, Carlo Della Rocca,  
                 Silvio Garattini, Giuseppe Lippi, Massimo Midiri, Teresa Palamara,  
                 Mario Plebani, Claudio Ronco, Antonio Russo, Francesco Salvatore,  
                 Paolo Villari*

**Artificial Intelligence in the Clinical Laboratory: regulation and application**

*Chair: Anna Carobene (Milan), Giuseppe Banfi (Milan)*

18:00

**Laboratory medicine and artificial intelligence: is it Wéijī?**

*Francesco Curcio (Udine)*

18:20

**Artificial Intelligence and Machine Learning in laboratory medicine: state of the art and applications**

*Fabio Del Ben (Aviano)*

18:40

**Artificial intelligence in healthcare: a critical analysis of the legal and ethical implications**

*Alice Pisapia (Varese)*

19:00

Discussion

**Keynote Lecture**

09:00

**Prevention is revolution**

*Silvio Garattini (Milan)*

*Chair: Marcello Ciaccio (Palermo)*

**Critical role of Laboratory Medicine in high-incidence diseases**

*Chair: Vincenzo De Laurenzi (Chieti), Maria Grazia Perilli (L'Aquila)*

09:45

**AKI diagnosis: from clinical to molecular approach**

*Claudio Ronco (Padua)*

10:05

**The importance of screening for thrombophilia**

*Paolo Simioni (Padua)*

10:25

**Antibodies for the screening of type I diabetes and celiac disease: preliminary data of the project The D1Ce Screen Project – ISS**

*Damiana Pieragostino (Chieti)*

10:45

**The role of Laboratory in the Monkeypox Virus Infection**

*Giuseppe Lippi (Verona)*

11:05

Discussion

11:15

**Keynote Lecture**

**Active ageing: the role played by primary prevention as a sustainability system**

*Francesco Vaia (Rome)*

*Chair: Francesco Salvatore (Naples)*

**The link between research and Laboratory Medicine**

*Chair: Giuseppe Banfi (Milan), Eustachio Vitullo (Matera)*

12:00

**Nanotechnology in diagnosis: progress, challenges, and opportunities**

*Miriam Colombo (Milan)*

12:20

**In vitro produced platelets: towards diagnostic and clinical use**

*Alessandra Balduini (Padua)*

12:40

**Intrinsic limitation of the cut-off values for vitamin D: metabolic approaches for a functional assessment**

*Giovanni Lombardi (Milan)*

13:00

Discussion

13:15

Lunch

**Keynote Lecture**

- 14:30 **A «small» revolution in Medicine: from the causes of Aging to Personalized Earlier Prevention**  
*Francesco Salvatore (Naples)*  
*Chair: Mario Plebani (Padua)*
- Harmonization in Clinical Laboratory Medicine: current and future strategies**  
*Chair: Tommaso Trenti (Modena), Antonio Fortunato (Ascoli Piceno)*
- 15:15 **Harmonization in laboratory medicine: more than clinical chemistry?**  
*Mario Plebani (Padua)*
- 15:35 **Promoting clinical and laboratory interaction by harmonization**  
*Laura Sciacovelli (Padua)*
- 15:55 **An overview of harmonization activities in Europe**  
*Martina Zaninotto (Padua)*
- 16:15 Discussion
- 16:30 **Closing remarks and end of the Course**



## INFORMAZIONI GENERALI

### **CONGRESS VENUE**

ETTORE MAJORANA FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
Via Guarnotta, 26  
91016 ERICE (Sicily) – Italy

### **REGISTRATION**

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

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

### **CONTINUING MEDICAL EDUCATION**

Provider: BIOMEDIA – **N. 148**  
N. ECM: **432139**

Professional Category: Health care professional, Biologist, Chemist, Medical Doctor, Surgeon, Biomedical Laboratory Technician.

Hours of training: **11**  
Credits: **7,7**

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 <https://elearning.biomedia.it/>

Test will be on-line from 18<sup>th</sup> december to 20<sup>th</sup> december 2024

### **CERTIFICATE OF ATTENDANCE**

A certificate of attendance will be available online after the meeting in MyLogin area on <https://elearning.biomedia.it>

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