



«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

## 155<sup>th</sup> Course: ***THE NEW ERA OF LABORATORY MEDICINE: FROM DIAGNOSIS TO CLINICAL MANAGEMENT***

**ERICE-SICILY: 28 – 31 MAY 2018**

Sponsored by the: • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government

### PROGRAMME AND LECTURERS

#### *Noncoding RNA genes in cancer pathogenesis*

• C. CROCE, The Ohio State University, OH, US

#### *High-sensitive troponin assays: Clinical advantages and algorithms*

• M. PLEBANI, University of Padua, IT

#### *Cardiac biomarkers and physical exercise*

• G. LIPPI, University of Verona, IT

#### *Cardiovascular outcomes of patients with Epatitis C*

• A. CRAXI, University of Palermo, IT

#### *Monitoring cardiotoxicity of antineoplastic agents: Role of biomarkers*

• G. NOVO, University of Palermo, IT

#### *Circulating tumor DNA: A promising biomarker in the liquid biopsy of cancer*

• M. FERRARI, IRCCS San Raffaele Scientific Institute, Milan, IT

#### *Liquid biopsy in the clinical management of patients with NSCLC*

• A. RUSSO, University of Palermo, IT

#### *Liquid biopsy as powerful tool for monitoring breast and ovarian cancer patients*

• E. CAPOLUONGO, Catholic University of the Sacred Heart, Rome, IT

#### *Pharmacogenomics in personalized medicine*

• P. TAGLIAFERRI, University of Catanzaro, IT

#### *Appropriateness and cancer biomarkers: Health care issue or research area?*

• M. GION, Azienda ULSS3 Serenissima, Venice, IT

#### *Management of elderly people with cancer*

• I. CARRECA, University of Palermo, IT

#### *A non-human genome in humans*

• F. SALVATORE, CEINGE, Naples, IT

#### *Application of proteomics to systemic amyloidosis*

• G. MERLINI, University of Pavia, IT

#### *The intricate field of metabolomics for disease pathogenesis understanding: Biomarkers and new drugs*

• V. FANOS, University of Cagliari, IT

#### *NIPT: A new test for pregnant women*

• A. NOVELLI, Ospedale Bambino Gesù, Rome, IT

#### *Genetic diagnosis of orphan diseases*

• B. DALLAPICCOLA, Ospedale Bambino Gesù, Rome, IT

#### *Toward personalized diagnosis and therapy in cystic fibrosis: The contribution of ex-vivo models*

• G. CASTALDO, University of Naples, IT

#### *Are we ready for an optimal use of CSF biomarkers for early diagnosis of Alzheimer's disease?*

• L. PARNETTI, University of Perugia, IT

#### *Tau fragments as CSF biomarkers in primary and secondary tauopathies*

• K. HÖGLUND, University of Gothenburg, SE

#### *Imaging markers of neurodegeneration*

• R. LODI, University of Bologna, IT

#### *Towards an in vivo clinical biochemistry of the mind?*

• P. PIETRINI, IMT, Lucca, IT

### PURPOSE OF THE COURSE

Laboratory Medicine plays an essential role in any phase of the health care process, from screening and diagnosis, to the definition of prognosis and management of medical therapy. All these aspects have been achieved over time due to the introduction of new technologies that have allowed the development of knowledge on the molecular and cellular mechanisms underlying the diseases. In light of these innovations, Laboratory Medicine takes on a new role within the health care system. Indeed, 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 signs and clinical symptoms. Defining a new laboratory-clinical interface represents an essential step to guarantee the best outcome for the patient. The purpose of the Course is to describe the new technologies used in diagnostics and how these can be applied in Laboratory Medicine, with special emphasis on precision medicine, cancer, cardiovascular diseases, molecular diagnostics, neurosciences. The common thread will be the integration of the biochemical information with the clinical and anamnestic ones in order to improve patients' outcomes.

### APPLICATIONS

Persons wishing to attend the Course should contact by e-mail:

pe-mail: [chiara.bellia@unipa.it](mailto:chiara.bellia@unipa.it)

In the mail persons should specify: i) full name, address, age and nationality; ii) job qualification, present position.

### PLEASE NOTE

Participants must arrive in Erice on May 29, no later than 12 a.m.

### POETIC TOUCH

According to legend, Erice, son of Venus and Neptune, founded a small town on top of a mountain (750 metres above sea level) more than three thousand years ago. The founder of modern history — i.e. the recording of events in a methodic and chronological sequence as they really happened without reference to mythical causes — the great Thucydides (~500 B.C.), writing about events connected with the conquest of Troy (1183 B.C.) said: «*After the fall of Troy some Trojans on their escape from the Achaei arrived in Sicily by boat and as they settled near the border with the Sicilians all together they were named Elymi: their towns were Segesta and Erice.*» This inspired Virgil to describe the arrival of the Trojan royal family in Erice and the burial of Anchise, by his son Enea, on the coast below Erice. Homer (~1000 B.C.), Theocritus (~300 B.C.), Polybius (~200 B.C.), Virgil (~50 B.C.), Horace (~20 B.C.), and others have celebrated this magnificent spot in Sicily in their poems. During seven centuries (XIII-XIX) the town of Erice was under the leadership of a local oligarchy, whose wisdom assured a long period of cultural development and economic prosperity which in turn gave rise to the many churches, monasteries and private palaces which you see today. In Erice you can admire the Castle of Venus, the Cyclopean Walls (~800 B.C.) and the Gothic Cathedral (~1300 A.D.). Erice is at present a mixture of ancient and medieval architecture. Other masterpieces of ancient civilization are to be found in the neighbourhood: at Motya (Phoenician), Segesta (Elymian), and Selinunte (Greek). On the Aegadian Islands — theatre of the decisive naval battle of the first Punic War (264-241 B.C.) — suggestive neolithic and paleolithic vestiges are still visible: the grottoes of Favignana, the carvings and murals of Levanzo.

Splendid beaches are to be found at San Vito Lo Capo, Scopello, and Cornino, and a wild and rocky coast around Monte Cofano: all at less than one hour's drive from Erice.

More information about the other activities of the  
«ETTORE MAJORANA» FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE  
can be found on the WWW at the following address:  
<http://www.ccsem.infn.it>