



«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

**156<sup>th</sup> Course: ADULTS AND GERIATRICS CANCER PEOPLE: NEW TOOLS FOR SAFE MANAGEMENT. AGEING AND CANCER DIVERGENT AND CONVERGENT MECHANISMS. FROM BENCH TO BEDSIDE**

**ERICE-SICILY: 28 – 30 OCTOBER 2018**

Sponsored by the: • Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government • PhD course in Molecular Medicine and Biotechnologies and by Postgraduate Course in Clinical Pathology and Biochemistry – Department of Pathobiology and Medical Biotechnologies – University of Palermo

### TOPICS AND LECTURERS

- *Immunoregulation exosome-mediated in health and disease*  
F. CURCIO, University of Udine, IT
- *Immunosenescence and Inflamm-aging: When the adaptation turns sour*  
J. WITKOWSKI, Medical University of Gdańsk, PL
- *Evidence for a role of MIF in immune ageing and working hypothesis on the possible use of MIF inhibitors in this condition*  
F. NICOLETTI, University of Catania, IT
- *Triggering of Toll-like receptors in the elderly. Relevance for vaccination*  
F. FARZANEH, King's College London, UK
- *Genetic signatures of centenarians*  
A. PUCA, University of Salerno, IT
- *Role of epigenetics in the achievement of longevity*  
G. PASSARINO, University of Calabria, Rende, IT
- *Microbiota patterns of ageing, age-related diseases and longevity*  
C. CARRU, University of Sassari, IT
- *Phenotypic aspects of longevity. Data from DESIGN project*  
G. ACCARDI, University of Palermo, IT
- *Centenarian's offspring as a model of successful ageing*  
A. AIELLO, University of Palermo, IT
- *Uncoupling protein 2-866G/A gene polymorphism in old and longevous people from Sicily: Association with oxidative stress*  
C.M. GAMBINO, University of Palermo, IT
- *The Demography of individual and population longevity*  
M. POULAIN, University of Louvain, BE University of Tallinn, EE
- *DNA mutations are not the whole answer to understanding cancer risk*  
G. CARRUBA, ARNAS, Palermo, IT
- *From fat tissue to cancer and beyond: Convergent and divergent mechanisms*  
F. BEGUINOT, University of Naples, IT
- *Diet and cancer in the elderly: from etiology to prognosis*  
J. POLESEL, IRCCS Centro di Riferimento Oncologico Aviano, IT
- *Nutraceuticals, in ageing, age-related diseases and longevity*  
G. SCAPAGNINI, University of Molise, Campobasso, IT
- *Role of dietary intervention in the prevention of age-related diseases*  
S. VASTO, University of Palermo, IT
- *Ethics of ageing*  
L. CRAXI, University of Palermo, IT
- *Anti-Ageing Medicine, Nutrition and DNA*  
D. GALIMBERTI, Medical Anti-Ageing Association, Milan, IT
- *Serum miRNA in successful and unsuccessful ageing*  
G. CAMMARATA, National Research Council, Palermo, IT
- *Redox regulation of cellular stress response in ageing and age-related diseases, hormesis and biological performance*  
V. CALABRESE, University of Catania, IT
- *Management of Elderly People with Cancer: a new challenge for Physicians?*  
I. CARRECA, University of Palermo, IT
- *Cytokine polymorphisms in ageing, age-related diseases and longevity: a systematic review*  
D. DI BONA, University of Bari, IT

### PURPOSE OF THE COURSE

The purpose of the course is to go insight into the relationship between cancer and ageing. Nowadays, people are living much longer than they used to do. However, they are not free from ageing, a relentless process that affects all cells, tissues, organs, and organisms, diminishing homeostasis and increasing organism vulnerability. Ageing progression causes a reduction of the response to environmental stimuli and, in general, is associated with an increased predisposition to disease and death. Cancer is generally recognized as an age-related disease. In fact, incidence and mortality rates of most human cancers increase consistently with age up to 90 years, but they plateau and decline thereafter. Centenarians, i.e. people that live longer than 100 years, their children and siblings have better chances to escape major age-related diseases, including cancer. Accordingly, autopsic studies of a group of Japanese centenarians clearly showed that the cause of death by cancer and metastatic spread were lower than expected. Autopsies performed on Italian centenarians also showed that cancer prevalence was decreasing in individuals over 99 years compared to younger individuals. Cancer and ageing are both fuelled by the accumulation of cellular damage. Consequently, mechanisms that protect cells from damage simultaneously provide protection against them. By contrast, cancer and longevity require a durable cell proliferation potential. Therefore, mechanisms that limit indefinite proliferation provide cancer protection but favour ageing. The overall balance between these convergent and divergent mechanisms guarantees fitness and cancer-free life until advanced age for most individuals.

### APPLICATIONS

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

Giulia Accardi: [giulia.accardi@unipa.it](mailto:giulia.accardi@unipa.it);

Anna Aiello: [anna.aiello@unipa.it](mailto:anna.aiello@unipa.it).

In the mail persons should specify:

i) full name, address, age, nationality;

ii) job qualification, present position.

### PLEASE NOTE

Participants must arrive in Erice on October 28, 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 Comino, 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.cesem.infu.it>

G. CANDORE – C. CARUSO  
DIRECTORS OF THE COURSE

I. CARRECA – A. ZICHICHI  
DIRECTORS OF THE SCHOOL

A. ZICHICHI  
PRESIDENT EMFCSC