



«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 NANOMEDICINE

## 5<sup>th</sup> Workshop: ADVANCED NANO- AND MICRO-STRUCTURED MATERIALS FOR MEDICAL APPLICATIONS

ERICE-SICILY: 20 – 25 JULY 2022

Sponsored by the: Italian Ministry of Education, University and Scientific Research • Sicilian Regional Government • Italian National Research Council • BioNanoMedicine Center (NANOMIB) • In2Sight, FET European Project

### PROGRAMME AND LECTURERS

#### *3D printing of microstructured scaffolds*

- E. AMSTAD, Institute of Materials École Polytechnique Fédérale de Lausanne, CH

#### *Nanoparticles as contrast agents for Magnetic Resonance Imaging*

- M. CARRIL, Biofisika Institute (CSIC, UPV/EHU), Leioa, Bizkaia, ES

#### *Hybrid nanoparticles for the treatment of central nervous system disorders*

- S. CINTI, Department of Pharmacy, University of Naples Federico II, IT

#### *Photothermal nanoparticles: cell stimulation, bacteria eradication and imaging applications*

- M. COLLINI, Department of Physic, University of Milano Bicocca, IT

#### *Hierarchically-organized drug delivery systems for the treatment of cancer, metabolic and chronic inflammatory diseases*

- P. DECUZZI, Laboratory of Nanotechnology for Precision Medicine, IIT, Genova, IT

#### *Nanoparticles-bases sensor for infectious diseases*

- M. GRZELCZAK, Center for Materials Physics (CSIC) and Donostia International Physics Center, San Sebastian, ES

#### *Biomedical Lab-on-a-Tip systems engineering*

- M. HEYMANN, Intelligent Biointegrative Systems, Institute of Biomaterials and Biomolecular Systems, University of Stuttgart, DE

#### *Scanning Probe Lithography for Biomedical Applications*

- M. HIRTZ, Karlsruhe Institute of Technology, Institute of Nanotechnology, Eggenstein-Leopoldshafen, DE

#### *Scaffold-mediated bone tissue engineering and bone cancer therapy*

- H. MALEKI, Institute of Inorganic Chemistry, Chair of Nanochemistry, University of Cologne, DE

#### *Cell instructive materials for in vivo and in vitro applications*

- P. NETTI, Istituto Italiano di tecnologia-IIT and University of Naples Federico II, IT

#### *Macromolecule-based Strategies for Enhancing Immunotherapy Responses*

- L. NUHN Max Planck Institute for Polymer Research, Mainz, DE

#### *Multifunctional nanoparticles for glioblastoma therapy*

- F. RE, School of Medicine and surgery, University Milano Bicocca, IT

#### *Biomaterials for the activation and delivery of metallodrugs*

- L. SALASSA, Donostia International Physics Center, San Sebastian, ES

#### *Probing nanomaterials in biological environments by X-ray techniques*

- C. SANCHEZ, Donostia International Physics Center, San Sebastian, ES

### PURPOSE OF THE WORKSHOP

The Workshop will be fully devoted to the latest and most significant achievement in advanced nano- and micro-structured materials.

The Workshop will provide many opportunities for interactions and discussions between students, postdocs and junior as well as senior investigators, encouraging and promoting networking between them. We encourage Early Career Researchers to present their investigations by submitting an abstract for either oral or poster presentation.

### APPLICATIONS

Persons wishing to attend the Workshop should send an application, by electronic mail, to: [nanomedicine.school@unimib.it](mailto:nanomedicine.school@unimib.it)

The number of participants is limited to 80 persons. Deadline for application: June 30<sup>th</sup>, 2022. Application form and further information may be found at the web link:

<http://nanomib.wixsite.com/nanomedicineschool>

### PLEASE NOTE

Participants must arrive in Erice on July 20, no later than 7 p.m.

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>

### 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 Achaean 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.