

#### International School of Bioelectromagnetism "Alessandro Chiabrera"

Directors of the School: Ferdinando Bersani (University of Bologna, Italy) and Maria Rosaria Scarfì (CNR-IREA, Naples, Italy)





# DATE

2-7 May 2025

#### VENUE



The Centre for Scientific Culture in Erice (Sicily, Italy)



Airport: Airport Trapani-Birgi "Vincenzo Florio" (TPS) Airport: Airport Palermo Falcone e Borsellino



+ Shuttle of the School



https://ettoremajoranafoundation.it/ http://www.eisbem.eu/index.php/2025-xi-course/ Historical note on the Venue and the School

Ettore Majorana Foundation and Centre for Scientific Culture, named after the renowned Italian physicist born in Sicily in 1906, is located in the ancient city of Erice. The Centre's four restored monasteries create an ideal setting for intellectual pursuit.

In 2004, the Centre established the Permanent School of Bioelectromagnetics, named after Alessandro Chiabrera, to study the biological effects of electric, magnetic, and electromagnetic fields, with a particular attention for future diagnostic and therapeutic applications.



# **11<sup>th</sup> EP COURSE BROCHURE**

**WEBSITE** 

# ETTORE MAJORANA FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE

#### **The Erice Statement**

The Erice Statement urges scientists to prioritize peace over military uses, promoting transparency, cooperation, and limiting nuclear arms.<sup>Entr</sup> calls<sup>ref</sup>ort<sup>the</sup> the<sup>nd</sup> prevention<sup>per</sup> of <sup>the</sup> nuclear <sup>sui-progressi</sup> delle-terapie-cardio... weapon proliferation and the moral responsibility of scientists to advocate for peaceful technology. Since 1982, over 90,000 have supported this ini <sup>A ERICE IL WORKSHOP SUI PROGRESSI DELLE TERAPIE X</sup>

#### WHY COME TO ERICE 2-7 MAY 2025??

Inspiring Setting: Erice's ancient city and stunning vistas offer a serene atmosphere, perfect for intellectual engagement and reflection

Rich Cultural Heritage: Experience Sicily's unique blend of history and culture while participating in cuttingedge research. World-Class Facility: The Ettore Majorana Foundation hosts renowned scientists, fostering collaboration in top-tier scientific fields.

Global Networking: Join an international community of experts dedicated to advancing science and technology in a prestigious venue.

#### Redazione

domenica 16 Giugno 2019



Si é inaugurato oggi 16 giugno, presso il Centro di Cultura Scientifica della Fondazione "Ettore Majorana" di Erice (TP), il Workshop "Advances in Cardiovascular Imaging and Therapy", promosso dai Professori Francesco Fedele (Roma) e Salvatore Novo (Palermo) e organizzato dai Professori Alfredo Galassi e Giuseppina Novo (Palermo).

#### Il Corso è focalizzato sulla discussione delle metodiche di imaging cardiovascolare, soprattutto

# ETTORE MAJORANA FOUNDATION AND CENTRE FOR SCIENTIFIC CULTURE

#### **Locations and Structures**

In Erice, ancient monasteries and churches have been restored to host scientists and meetings. Headquarters, offices, accommodations, and lecture halls are located in these renovated spaces, maintaining their original charm. The Centre's premises include the monasteries of San Rocco, San Francesco, and San Domenico. San Domenico serves as the main lecture site, while San Rocco houses the Secretariat and participant accommodations.







co, San Rocco, e inner court

inner court

Coffee breaks and Poster room, 2° floor, inside



# The Structures for the Courses and Lectures

San Domenico, outside



### The Lecture hall, inside



## International School of Bioelectromagnetism "Alessandro Chiabrera"



Directors of the School: Ferdinando Bersani (University of Bologna, Italy) and Maria Rosaria Scarfì (CNR-IREA, Naples, Italy)

11<sup>th</sup> **Course: "Advances in Electroporation-Based** Therapy: from Principles to Clinical Applications "

Erice (Sicily, Italy): May 2 to 7, 2025

Course Description: Explore electroporation-based treatments, understanding key physical principles and recent clinical advances. Learn the crucial role of electric fields and the importance of treatment planning across various therapies.

Key Objectives: Equip researchers and medical professionals with essential skills for effective use of electroporation treatments. Understand mechanisms, electric field distribution, and electrode placement to enhance clinical practice.

Educational **Experience:** Gain practical а understanding of advancements and future applications in electroporation. Learn about cellular responses to pulsed electric fields, opening new paths for innovative patient care.





**ioEM** Co-organised with:

### International School of Bioelectromagnetism "Alessandro Chiabrera"



Directors of the School: Ferdinando Bersani (University of Bologna, Italy) and Maria Rosaria Scarfì (CNR-IREA, Naples, Italy)

**11**<sup>th</sup> **Course: "Advances in Electroporation-Based Therapy: from Principles to Clinical Applications "** Erice (Sicily, Italy): May 2 to 7, 2025

#### **CONFIRMED SPEAKERS**

Prof. Luis Mir French National Center for Scientific Research Prof. Gregor Sersa Institute of Oncology Liubliana Prof. Richard Heller University of South Florida Prof. Julie Gehl University of Copenhagen Italian National Research Council Dr. Emanuela Signori Prof. Qi Shao University of Minnesota Prof. Maja Cemazar Institute of Oncology Ljubljana Universitat Pompeu Fabra Prof. Antoni Ivorra Prof. Lea Rems University of Ljubljana Prof. Francesca Apollonio University of Rome Sapienza Prof. Clair Poignard CNRS, University of Bordeaux Prof. Fernando Burdio Universitat Pompeu Fabra Italian National Research Council Dr. Stefania Romeo Dr. Roberta Fusco National Cancer Institute 'G. Pascale Foundation' Dr. Luigi Aurisicchio Takis Biotech Dr. Giulia Bertino Policlinico San Matteo Pavia, IRCCS Foundation

All participants are invited to bring a poster on their current research topic, for one dedicated session. A Scientific Committee will award the author of the best poster.

PROGRAM SPACE

Practical experience & Industry and Medical Experiences Practical experiences and two dedicated sessions: one featuring industry experts providing insights on technological developments, and the other with physicians addressing current clinical challenges.

# COURSE PROGRAM AT GLANCE

Friday, May 2nd	Saturday, May 3rd	Sunday, May 4th
Theme: BASICS	Theme: ELECTRIC FIELD	Theme: LABWORK AND
<ul> <li>Welcome, Introduction, Course opening</li> </ul>	Electric Field Generators and Electrodes for EP and	INTERACTIVE FORUM
Basic Mechanisms Principles	drug diffusion	Labwork 1: Electric Field Calculation on
Results of cells exposure: reversible	Electric Field Generators and Electrodes for IRE & PFA	a Basic EP Configuration
electroporation	Electric Field Generators and Electrodes for gene	Industry Panel: Gaps and Challenges in
Results of cells exposure: irreversible	electrontrasfer	Technological Development
electroporation	Collateral Effects of Electroporation	Labwork 2: Electric Field Calculation on
Results of cell response for transfection	Impact of protocol parameters	a Case Study
Other basic responses	Electric Field Coupling and Modeling	Labwork 3: Electroporation experience
Electroporation as a Platform Technology	<ul> <li>Treatment Planning Strategies</li> </ul>	on a vegetable tissue

#### Theme: CLINICS

- Different Clinical Applications, main Results, and emerging issues
- Clinical Applications: ECT, IRE, PFA, EGT
- Clinical Applications: Veterinary oncology
- The Insp-ECT (International Network for Sharing practices on ECT) experience
- Medical Experts Panel

Students Posters and Discussion

Course Dinner and Best Poster Award

# **11<sup>th</sup> EP COURSE BROCHURE**

Theme: FUTURE DIRECTIONS

- Tumour Ablation: Clinical Experiences: Bone metastasis at Vertebre
- Tumor Ablation and its Interplay with the Adaptive Immune Response
- Combined treatment of ECT and immunotherapy Excursion



- Half dav
- State of the Art at 5thWorld Congress Electroporation in Rome 2024
- Overview of recent funded Research Programs
- Closing remarks and overview of EP topic at Erice

# COSTS and FACILITIES

# 



# **HOW TO APPLY**

Interested candidates should send an email to the Directors of the Course at <u>school2025@eisbem.eu</u>, including:

- A short Curriculum Vitae
- Scientific interest of the candidate
- Students: a letter of recommendation of a Senior Scientist

Deadline:

December 31, 2024



ATTENDANCE TO CLASSES AND PRACTICAL EXPERIENCES

Accommodations: Rooms at the restored monastries San Rocco, San Francesco, and San Domenico



FOOD: Breakfasts, Coffe Breaks, Lunches, Dinners, + Course-Dinner on Monday 5th



TRANSPORTATIONS Shuttle of the School from and to the Airport +

Excursion to an archeological site on Tuesday 6th



**BEST STUDENT POSTER AWARD** 

## **COME TO ERICE – from 2 to 7 May 2025**

