



Biomedicine and Molecular Biosciences

COST Action BM1309 EMF-MED

**Workshop on EMF Interaction with Excitable Tissues**

**COST EMF-MED**

European network for innovative uses of EMFs  
in biomedical applications

**3rd Management Committee Meeting (MCM),  
2nd Working Group Meetings (WGMs),  
Workshop on EMF Interaction with Excitable Tissues,  
Mini-Training on Health Technology Assessment**

Madrid, 4-6 March 2015

**Final Program**

**Meeting Venue:**

Instituto de Salud Carlos III  
C/ Monforte de Lemos, 5  
28029 Madrid  
SPAIN

**Local organiser:**

Instituto de Salud Carlos III, represented by Dr. Victoria Ramos

## Timetable

<u>Wednesday 04/03/2015</u>	<u>Thursday 05/03/2015</u>	<u>Friday 06/03/2015</u>
	08:00 – 09:00 SG meeting *	
	09:00 – 09:15 Opening 09:15 – 10:40 MCM	09:00 – 17:30 Workshop on EMF Interaction with Excitable Tissues
	10:40 – 11:00 Coffee break	10:40 – 11:00 Coffee break
	11:00 – 13:00 Joint WG1, WG2, and WG3 meeting (plenary session)	
	13:00 – 14:00 Lunch break	13:00 – 14:00 Lunch break
	14:00 – 15:20 WG1 meeting 14:00 – 15:20 Joint WG3 & WG2 meeting	
	15:20 – 15:40 Coffee break	15:20 – 15:40 Coffee break
	15:40 – 17:00 WG1 meeting 15:40 – 17:00 Joint WG3 & WG2 meeting	
17:00 – 19:00 Mini-Training Workshop	17:30 – 18:30 EBEA Council meeting *	17:30 – 18:00 SG meeting *
20:00 – 21:00 SG meeting *	Social program	Social program

\*members only

### Wednesday 04/03/2015

**17:00 – 19:00**      **Mini-Training Workshop: Health Technology Assessment .....***Room A1 (pav. 8)*  
Invited speaker and workshop chair: Leandro Pecchia (*University of Warwick, UK*)

### Thursday 05/03/2015

**09:00 – 09:15**      **Opening .....***Ernest Lluch (pav.13)*  
Welcome greeting from the Local Organizer

**09:15 – 10:40**      **MCM - Management Committee Meeting**  
Chairs: Antonio Šarolić (Action Chair) and Mirjana Moser (Action Vice-Chair)

**10:40 – 11:00**      **Coffee break**

**11:00 – 13:00**      **Joint WG1, WG2, and WG3 meeting (plenary session)**

Chairs: Antonio Šarolić (Action Chair), Mirjana Moser (Action Vice-Chair), Gerard van Rhooon (WG1 Leader), Victoria Ramos

11:00 – 11:30      Victoria Ramos (*Instituto de Salud Carlos III, Spain*):  
**Research activities at Instituto de Salud Carlos III**

- 11:30 – 11:35 Antonio Šarolić (*FESB, University of Split, Croatia*):  
**Introduction to WM proposals**
- 11:35 – 11:50 Arancia Sanchez, Jesús Pablo García Cambero (*Instituto de Salud Carlos III, Spain*):  
**The zebrafish embryo as a new animal model** (new WM proposal – tentative title)
- 11:50 – 12:05 Maria Rosaria Scarfi, Olga Zeni, Rita Massa (*Italian National Research Council, Italy*):  
**Induction of adaptive response by non ionizing radiation** (new WM proposal)
- 12:05 – 12:20 Silke Lechner-Greite (*GE Global Research Europe, Germany*):  
**Transcranial magnetic resonance guided focused ultrasound for noninvasive treatment of brain diseases** (new WM proposal)
- 12:20 – 12:35 Alessia Ongaro (*University of Ferrara, Italy*):  
**Pulsed Electromagnetic Fields as an innovative approach for functional tissue engineering of connective tissues** (new WM proposal)
- 12:35 – 12:45 Federica Francesca Masieri (*University Campus Suffolk, UK*), Deborah Stanco (*IRCCS Galeazzi Orthopedic Institute, Italy*):  
**The Role of Pulsed Electromagnetic Fields (PEMFs) in the Regenerative Medicine of the Musculoskeletal System** (new WM proposal)
- 12:45 – 13:00 Myrtille Symko (*AIT, Austria*), Lluís Mir (*CNRS, Institut Gustave-Roussy, France*), Jan Cuppen (*Neiding BV, The Netherlands*), Mats-Olof Mattsson (*AIT, Austria*):  
**ELF- magnetic fields and immune response modulation** (reintroduction and discussion on WM proposal)

*Discussion*

**13:00 – 14:00 Lunch break**

**14:00 – 17:00 WG1 meeting** (including a coffee break: **15:20 – 15:40**) .....**Room A1 (Aula 1) Pav.8**

Chair: Gerard van Rhoom (WG1 Leader)

Low-level-EMF cancer treatment and diagnosis

Antonio Ponzetto (*University of Torino, Italy*):

- **ELF slows the growth of a Rhabdomyosarcoma cell line**
- **Extremely Low Frequency Electromagnetic Field (ELF) exposure allows rapid in vitro hepatocyte generation from adult progenitor cells and from leukemic cell line THP-1.**

Elcin Ozgur (*Gazi University, Turkey*):

**Mobile Phone Radiation Alters Proliferation of Hepatocarcinoma Cells**

Eric van Rongen (*Health Council of the Netherlands, The Netherlands*):

**Systematic review animal carcinogenicity EMF studies**

Yoram Palti (*NovoCure, Israel*):

**Cancer treatment by alternating electric fields (TFields); physical basis and clinical trial results**

Boris Pasche (*Comprehensive Cancer Center of Wake Forest University, USA - by teleconference*):

**New results and developments in diagnosis and treatment of cancer with low level AM EMFs**  
(tentative title)

*Discussion*

*How to proceed in the topic of low-level-EMF cancer treatment and diagnosis*

**14:00 – 17:00**      **Joint WG3 & WG2 meeting** (including a coffee break **15:20 – 15:40**)  
.....Ernest Lluch Hall. Pav. 13

Chairs: Theo Samaras (on behalf of WG3), Eugenijus Kaniusas (on behalf of WG2)

Electrostimulation of excitable tissues as a cross-group topic

Antonio Šarolić (*FESB, University of Split, Croatia*):

**Overview of the program of the Workshop on EMF Interaction with Excitable Tissues**

Eugenijus Kaniusas (*Vienna University of Technology, Austria*):

**Progress report on vagus nerve stimulation research and collaborations**

Fivos Panetsos (*Universidad Complutense de Madrid, Spain*):

**Neuroprosthetic stimulation and brain plasticity: The role of cognitive meaning incorporated in the artificial stimuli**

Zlatko Živković, Antonio Šarolić (*FESB, University of Split, Croatia*):

**Measurement setup for single axon animal model studies**

Micaela Liberti (*Sapienza, University of Rome, Italy*):

**Retinal rods modeling for electric field microdosimetry**

Andreas Ioannides (*AAI Scientific Cultural Services Ltd, Cyprus*):

**Can we ask the brain to tell us how EMFs affect it?**

Norbert Kovacs (*University of Pecs, Hungary*):

**Application of transcranial magnetic stimulation for the treatment of neurodegenerative diseases at the University of Pecs**

Erik Aguirre, Peio Lopez Iturri, Leire Azpilicueta (*Universidad Pública de Navarra, Spain*), Silvia de Miguel-Bilbao, Victoria Ramos (*Instituto de Salud Carlos III, Spain*) and Francisco Falcone (*Universidad Pública de Navarra, Spain*):

**Deterministic 3D Ray Launching EMF/Human Body Interaction Estimation in Complex Scenarios**

Iván Larrauri De Miguel, Jose Luis Bardasano (*University of Alcalá, Spain*):

**Treatment of Ictus with Transcranial Electromagnetic Stimulation (tentative)**

Other tentative contributors: Fivos Panetsos, Hubert Trzaska, ...

*Discussion*

**17:30 – 18:30**      **EBEA Council meeting (only for EBEA Council members)** .....Room A1 (Aula 1) Pav.8

**Social program:**

19:30 Welcome reception and dinner at ECOOO Savia Solar. Calle Escuadra, 11 (provided by Local Organizer)

**Friday 06/03/2015**

**09:00 – 17:30**      **Workshop on EMF Interaction with Excitable Tissues** .....Aula Magna (pav.14)

Program on the separate pages

**Social program (self-paid – according to Doodle poll):**

19:00-21:00 *Touristic Tour (walking) „From the Hapsburgs to the Bourbons“ for meeting participants*

**Saturday 07/03/2015, 10:00h** *Prado Museum Visit (organized group admission)*