



**European network for innovative uses of EMFs in
biomedical applications
EMF-MED**

**Workshop “Immune response modulation”
Rome 15 May 2015**

Agenda

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- **09:00-09:15 Introduction - Aim of the workshop**
 - **09:15-10:00 Framework (MS presentation; posted on website)**
 - **10:00-11:00 Participant's flash presentations**
 - - 2 slides per presenter
 - - 3 -5 minutes
 - - Slides put together in advance
 - **11:00- 12:00 Brainstorming - live and dynamic discussion**
 - **12:00-13:00 Lunch break**
 - **13:00-15:00 Specific discussions**
 - - Overlapping areas of interest/questions
 - - Competencies for contributions
 - **15:00-15:30 Coffee / Tea Break**
 - **15:30-16:45 Plan for continuation**
 - - Research cooperation possibilities
 - - Identification of national or transnational calls for research proposals
 - - H2020 Call proposal (Health)
 - - Review article based on presentations
 - - Estimation of the feasibility of a large conference-type COST EMF-MED workshop on this (or similar) topic, including timeframe to organize it, with respect to expected progress of activities and results.
 - **16:45-17:00 Summing up and future action**

Participants

- Antonio Sarolic (AS)
- Myrtil Simkó (MS)
- Jan Cuppen (JC)
- Jean Francois Collard (JFC)
- Lluís M Mir (LM)
- Maria Rosaria Scarfi (MRS)
- Carmela Marino (CM)
- Claudio Paoli (CP)
- Mats-Olof Mattsson (MM)
- György Thuroczy (GT)
- Olga Zeni (OZ)
- Federica Masieri (FM)
- Gerard van Rhooen (GR)
- Paolo Ravazzani (PR)
- Lyubina Vesselinova (LV)
- Huub Savelkoul (HS)
- Lucas Portelli (LP)

Participant's flash presentations

Presentations are posted on the Actions website

- Huub Savelkoul
- Claudio Pioli
- Federica Masieri
- Jan Cuppen
- Lluís M Mir
- Lyubina Vesselinova
- Jean Francois Collard
- Maria Rosaria Scarfi
- György Thuroczy
- Lucas Portelli

Brainstorming discussion

- Connections to hyperthermia treatment and that scientific community
- Common mechanism important to find out – stress?
 - biophysical interaction mechanism level
 - maybe no common mechanism, but several, like different signalling pathways and membrane components that are involved (biological mechanisms)
- Low dose as opposed to high degree of stimulation as in hyperthermia
- Responders vs non-responders; what is the difference?
- Strict exposure/dosimetry characterization required
- Immune competence rather than immune modulation, more correct terminology
- Deliverables that the WM could produce (**overlaps with Agenda # Plan for continuation**)
 - minimal requirements for replication of existing findings that are interesting (exposure, biology, etc.) – consult also with WG3
 - **review(s) with statement regarding the realism with EMF-based immuno-modulating therapies**, focusing on specific signals/frequencies; based on mechanisms?;
 - identification of research areas with potential and where progress could be expected (both regarding mechanisms and applications)
 - preclinical model is a more realistic but still difficult aim than a clinical application

Specific discussions

- Overlapping areas of interest/questions
 - mechanisms relevant for regenerative medicine; biophysical signals driving differentiation (immune relevant cells)
- Competencies for contributions
(see separate slide)

Plan for continuation

- Research **cooperation possibilities**
- **Identification of** national or transnational **calls** for research proposals
- **H2020 Call proposal** (Health)
- **Review** article(s) based on presentations
- Estimation of the feasibility of a large conference-type COST EMF-MED **workshop** on this (or similar) topic, including timeframe to organize it, with respect to expected progress of activities and results.

WM expertise collection (based on the presentations)

- In vitro – Wageningen, Suffolk, CNRS-Univ Paris, CNR, AIT
- In vivo – ENEA
- Clinical studies – CNRS, MMA,
- HTS – Univ Libre de Bruxelles
- Exposure and dosimetry – Immument, NRIRR, ITIS
- „Expertise sheet“ for filling in will be produced by JC and posted as a Dropbox file

Summing up and future action

- **„Coordinating“ committee (MS, JC, LMM, CP, HS)**
 - correct name to be decided later
 - appointment of contact person internally
 - WM belong to WP2 (primarily), and also to WP1
 - future one-day workshop
 - competence and facilities list
 - reviews topics (suggestions are welcome)
 - opinion paper on research topics, based on material retrieved from the draft reviews
- Deliverables that the WM could produce (**overlaps with Agenda # Plan for continuation**)
 - minimal requirements for replication of existing findings that are interesting (exposure, biology, etc.) – consult also with WG3
 - **review(s)** with statement regarding the realism with EMF-based immuno-modulating therapies, focusing on specific signals/frequencies; based on mechanisms?; other subjects were also discussed.
 - identification of research areas with potential and where progress could be expected (both regarding mechanisms and applications)
 - preclinical model is a more realistic, but still difficult, aim than a clinical application