



### [1<sup>st</sup> bi-annual focused meeting of the COST Action CA 17115 \(My Wave\)](#)

#### „European Network For Advancing Electromagnetic Hyperthermic Medical Technologies”

Sibiu, 08-09 July 2019

„The European Cooperation in Science and Technology (COST) is a funding organization for the creation of research networks, called COST Actions. These networks offer an open space for collaboration among scientists across Europe (and beyond) and thereby give impetus to research advancements and innovation.”

Gaining funding by international competition, in September 2018 has started, for a period of four years, ***COST ACTION CA 17115 - „European network for advancing Electromagnetic hyperthermic medical technologies”***. In this international network take part 29 countries, among them being also Romania. The coordinator country is Malta.

**Hosts & organizers:** The first focused meeting of the Action will be hosted by Romania and will be locally organized by Lucian Blaga University of Sibiu, co-organizers being Academia Ardeleana Foundation and Sibiu City Town Hall. The external organizer is University of Malta in Msida, Malta, which is also the Grant Holder of this COST Action.

**Venue:** Lutsch House, 13 Main Square, Sibiu, Romania.

**Objectives:** Electromagnetic (EM) hyperthermic technologies hold great potential in the treatment of diseases, especially for cancers that are resistant to standard regimens. These technologies modify tissue temperature: hyperthermia heats the diseased tissue to make it susceptible to treatments, and ablation heats the tissue until it is destroyed. Hyperthermia is particularly effective in treatment of cervical and breast cancer, head and neck cancers, sarcoma in adults, and germ cell tumours in children; while radiofrequency and microwave ablation offer promise for treating liver, kidney, and lung cancers.

Overall, these techniques have shown significant potential and there is substantial opportunity to solidify their use clinically and to apply them to a wider range of medical conditions. However, underpinning the development of these techniques is the need for accurate knowledge of the

dielectric and thermal properties of tissues, which provide the foundation for these technologies and de-risk the technical challenge before commercialization. Furthermore, contributing to the stagnant market of EM hyperthermic medical devices is the fact that, often researchers working on the development of medical technologies are not fully aware of, and not trained to address, the clinical and commercialisation challenges facing novel medical devices. To address these challenges, the MyWAVE Action takes a holistic approach by bringing together key players in the field of dielectric spectroscopy, translational research, and medical professionals. Conjoining these varied communities into one collaborative network is critical to advance the design, development, and commercialisation of EM hyperthermic technologies, so that they can reach patients faster and improve treatment outcomes.

**Working groups objectives:**

- **Working group 1:** Accurate dielectric and thermal properties of human tissues;
- **Working group 2:** Better thermal-based Electromagnetic therapeutics;
- **Working group 3:** Commercialisation pathways for medical devices using hyperthermia technologies.

**Funding:** Main funding comes from COST Association, Bruxelles, Belgium.

**Sponsors:** Rohde & Schwarz Romania SRL, QuickWeb Info SRL, more to be completed.

**The topics and content of the focused meeting:** will be announced gradually, in due time.

All the specific details of the conference will be presented beginning of May 2019.

**Local organizing committee:**

Prof. dr. Claudiu Kifor - Vice-rector, Lucian Blaga University of Sibiu

Prof. dr. Daniel Volovici, Lucian Blaga University of Sibiu

Prof. dr. Maria Vințan, Lucian Blaga University of Sibiu

Prof. dr. Ioan Miha, Lucian Blaga University of Sibiu

Prof. dr. Mihai Bogdan, Lucian Blaga University of Sibiu

Conf. dr. Roxana Savescu, Lucian Blaga University of Sibiu

Dr. Ramona Giurea, Lucian Blaga University of Sibiu

Mr. Helmut Lerner, city councilor, Sibiu city Town Hall

Prof. dr. Simona Miclaus, Lucian Blaga University of Sibiu

Prof. dr. Paul Bechet, Lucian Blaga University of Sibiu

More information about the event can be found here:

(<https://www.um.edu.mt/science/physics/electromagnetics/costmywavefocusedmeeting>)