

Commission K (Electromagnetics in Biology & Medicine) Activity Report
January 2016 – May 2016

May 21, 2016

Koichi Ito

1 Activity

1.1 3rd meeting of Japanese URSI-Commission K for the 23rd term of the Science Council of Japan

◆ Date: January 25, 2016

◆ Place: Akihabara satellite campus of Tokyo Metropolitan University, Tokyo

◆ Topics:

The URSI sub-committee, Science Council of Japan and URSI-JRSM2015 was reported by Prof. Ito.

Scientific symposium (Co-operated by Japanese Society for Electromagnetics in Biology and Medicine)

- One invited lecture and five research reports were presented with 37 participants.
 - Invited lecture: “How human cells respond to nanosecond pulsed electric fields – Molecular mechanisms of signal transduction and cell death” by Yano, K. (Kumamoto University)
 - “Specific absorption rate evaluation of a deep brain stimulator electrode during the magnetic resonance imaging” by Yoshida, T. (Chiba University) *et al.*
 - “Acute effects of high frequency electromagnetic radiation on body temperature and TSH gene expression in the pituitary gland” by Hattori, K. (Meiji Pharmaceutical University) *et al.*
 - “Study on mathematical models of nerve stimulation elicited by magnetic field up to 10 MHz” by Terai, T. (Tokyo Metropolitan University) *et al.*
 - “Fundamental study for human blood flow change in whole-body electric field exposure” by Shimizu, O., H. (Hokkaido University of Science) *et al.*
 - “Effects of electromagnetic fields from medical devices to bone tissues” by Yamaguchi, S. (National Institute of Occupational Safety and Health) *et al.*

2 Associated meetings

2.1 Past meetings

- 1) The symposium in national conference 2016 by the Institute of Electrical Engineers of Japan “Trend in the health risk analysis of electromagnetic field”, Sendai, Japan, 18 March 2016 (domestic)
- 2) ICHO2016 (International Congress of Hyperthermic Oncology), New Orleans, USA, 11-15 April, 2016 <<http://www.thermaltherapy.org/ebusSFTM/ICHO2016.aspx>>
- 3) 8th International NIR Workshop, Cape Town, South Africa, 9-11 May 2016 <<http://www.icnirp.org/en/workshops/article/workshop-nir2016.html>>

2.2 Future meetings

- 1) BioEM2016, Gent, Belgium, 5-10 June, 2016, <<http://www.bioem2016.org/>>
- 2) AP-RASC2016, Seoul, Korea, 21-25 August, 2016, <<http://aprasc2016.org/>>