

3<sup>rd</sup> International Conference on

# MEDICAL PHYSICS & BIOMEDICAL ENGINEERING

November 07-08, 2016      Barcelona, Spain



**Hosting Organizations: Conference Series LLC**

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## Opening Ceremony

## Keynote Forum

**10:00-10:50 Title: Therapeutic and Diagnostic Uses of Electromagnetic Energy and Emerging Medical Technologies from an Engineering Perspective**

**D. V. Giri**, University of New Mexico, Mexico

## Panel Discussion

**Networking & Refreshments break 10:50-11:10 @ Colon**

**11:10-12:00 Title: The Particle Therapy Experience and Recent Developments**

**Susan B.Klein**, Indiana University Bloomington, USA

**12:00-12:50 Title: Monoolein-based nanocarriers for medical applications**

**Maria Elisabete C. D. Real Oliveira**, Minho University, Portugal

## Panel Discussion

## Photo Session 12:50-12:55

**Lunch Break 12:55-13:55 @ La Terraza**

## Sessions:

**BioMedical Device Engineering | Bio Engineering | Radiation Oncology | Clinical Physics and Patient Safety | Biophysics | Bio Mechanics | Biomedical Physics | Dosimetry**

**Session Chair: Susan B.Klein**, Indiana University Bloomington, USA

**Session Co-chair: Peter Ertl**, Vienna University of Technology, Austria

**Session Introduction 13:55-14:00**

**14:00-14:25**

**Title: Evaluation of Different Knee Joint Kinematic Models**

**Marta Drazkowska**, Poznan University of Technology, Poland

**14:25-14:50**

**Title: Potential use of fluoride nanoparticles and rare earth doped fluoride nanoparticles in biomedicine (photodynamic therapy): cytotoxicity and photoinduced toxicity**

**Maksim Pudovkin**, Kazan Federal University, Russia

**14:50-15:15**

**Title: Medical Physics and Communication: Cool Hand Luke?**

**Richard L. Morin**, Mayo Clinic Jacksonville, USA

**15:15-15:40**

**Title: Evaluation of Mental Stress by Measuring Four Physiological Signals Simultaneously**

**Rabah Al abdi**, Jordan University of Science and Technology, Jordan

**15:40-16:05**

**Title: Galvanic skin response and serum orexin A levels in humans increase during aerobic exercise**

**Giovannai Messina**, University of Foggia, Italy

**Networking and Refreshments Break: 16:05-16:25 @ Colon**

**16:25-16:50**

**Title: Extensibility of the supraspinatus muscle is affected by intramuscular fat**

**Hugo Giambini**, Mayo Clinic, USA

**16:50-17:15**

**Title: 1H NMR based metabolomic approach to monitoring of the head and neck cancer treatment toxicity**

**Lukasz Boguszewicz**, Maria Sklodowska-Curie Memorial Cancer Center and Institute of Oncology, Poland

**17:15-17:40**

**Title: Radiation induced Polymerization of N-(Hydroxymethyl) Acrylamide Polymer Gel Dosimeters for Radiation Therapy**

**Khalid Rabaeh**, Hashemite University, Jordan

**17:40-18:05**

**Title: Regional Assessment of Ventricular Hypokinesia by Magnetic Resonance Imaging (MRI)**

**Narjes Benameur**, University of Tunis El Manar, Tunisia

## Panel Discussion

## LLOBREGAT

## Keynote Forum

**10:00-10:50** Title: Monitoring onset of bone healing kinetics and early transplant rejection using implantable titanium dioxide-coated bioimpedance sensors  
**Peter Ertl**, Vienna University of Technology, Austria

**Networking and Refreshments Break: 10:50-11:10 @ Colon**

**11:10-12:00** Title: Metrological approach in medical measurements  
**Baki karaboce**, National Metrology Institute of Turkey, Turkey

## Sessions:

**BioMedical Device Engineering | Biomaterials and Artificial organs | Biomedical Engineering and Cancer | Clinical Physics and Patient Safety | Radiology**

**Session Chair: D. V. Giri**, University of New Mexico, Mexico

**Session Co-chair: Baki karaboce**, National Metrology Institute of Turkey, Turkey

**Session Introduction 12:00-12:05**

**12:05-12:30** Title: Radiation therapy in a world of alternative treatments  
**Susan B.Klein**, Indiana University Bloomington, USA

**12:30-12:55** Title: Device-free generation of hydrogen peroxide for promoting angiogenesis by coupling Mg and Ti alloy  
**Myoung-Ryul ok**, Korea Institute of Science & Technology, S. Korea

**Lunch Break 12:55-13:55 @ La Terraza**

**13:55-14:20** Title: Tissue engineering solutions to enhance osseointegration process of the dental implants  
**Aseel Al Jaboori**, Leeds university, UK

**14:20-14:45** Title: Analysis of dosimetric properties of alanine/epr system for low dose radiations used in radiotherapy

**Abdoul Karim Mamadou Saidou**, Hassan I University, Morocco

**14:45-15:10** Title: Analysis of the Spectroscopic Aspects of the Cationic Dye Basic Orange 21 in bulk, and particularly in leukocytes

**Zehavit Eizig**, Bar Ilan University, Israel

**15:10-15:35** Title: Tamoxifen's antiproliferative effects on estrogen positive and triple negative Breast cancer  
**Reza zohdi Aghdam**, Urmia University of Medical Sciences, Iran

**15:35-16:00** Title: Manufacturing and characterization of poly(3-hydroxybutyrate)/ multiwalled carbon nanotubes nanocomposite scaffold for tissue engineering application  
**Moein Zarei**, Islamic Azad University, Iran

**Networking and Refreshments Break: 16:00-16:20 @ Colon**

**16:20-16:45** Title: Voxel-based finite element model of a reconstructed bone: simulating a bone tumor surgery  
**Azadeh Ghouchani**, Amirkabir University of Technology, Iran

## Poster presentations 16:50-17:50

**BMMP 01** Title: Sub-Micron Surface Plasmon Biosensors for Glucose Concentration Assessment  
**Susan B.Klein**, Indiana University Bloomington, USA

**BMMP 02** Title: The 'nanotherapy' revolution: three different applications of lipid nanosystems in therapeutics

**Maria Elisabete C. D. Real Oliveira**, Minho University, Portugal

**BMMP 03** Title: Service agreements, economic value perceived by biomedical engineers and health administrators in the adoption of service agreements for small capital medical equipment  
**Suzanne Battaglia**, Medtronic International Trading Sàrl, Switzerland

**BMMP 04** Title: DNA as a Catalyst in Redox, Photoinduced Processes and Nanoscale Energy Transfer  
**Tamar Giorgadze**, Javakishvili Tbilisi State University, Georgia

**BMMP 05** Title: The determination of plasmatic activity of butyrylcholinesterase using screen printed voltammetric sensors

**Miroslav Pohanka**, University of Defence, Czech Republic

**BMMP 06** Title: Biochemical and physicochemical study of a virgin oil of Pistacia lentiscus fruits and determination of its effects on blood parameters

**Merzougui Imene**, Badji Mokhtar University, Algeria

## Panel Discussions

## Awards &amp; Closing Ceremony