WORKSHOP

NANOPARTICLES FOR MAGNETIC HYPERTHERMIA: CHARACTERIZATION AND APPLICATIONS IN NANOMEDICINE AND NEW MATERIALS

Magnetic nanoparticles (MNPs) with functionalized surfaces are bringing novel and promising ways to treat deadly diseases such as cancer. They have multiple applications that range from magnetic hyperthermia, localized drug delivery and release, to tissue engineering and new materials.

MNPs are designed to attack, with high specificity, a given tissue, challenging researchers in solving biochemical and physiological issues.

Depending on the success in such a challenge, cancer-specific hyperthermia and drug delivery protocols could be developed.

With this workshop LOT-QuantumDesign intends to give a brief overview on the latest achievements in MNPs studies, presenting also the state of the art instrumentation for MNPs calorimetric, in-vitro and in-vivo characterization, making real users to talk about.

OCTOBER 28TH 2014

Aula Magna IMEM-CNR

Parco Area delle Scienze 37/A - 43124 Parma

Participation is free of charge. Registration form to be submitted to paziani@lot-qd.it or to FAX +39 06 5010 389

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Program

9:30 Registration

10:00 MNPs: use and challenges for near future.
Prof. Gerardo F. Goya, (Dep. of Condensed Matter Physics, University of Zaragoza)

10:45 Coffee Break

11:00 Characterization methods and instruments. Problems.
Nico Cassinelli, Nanoscale Biomagnetics SL (CEO)

11:30 nB solutions: DM systems.
Nico Cassinelli, Nanoscale Biomagnetics SL (CEO)

12:30 Lunch Break

14:00 Hyperthermic properties of multifunctional nanocomposites
Dr. Roberta Ciprian, IMEM CNR

14:25 A novel nanosystem for bimodal cancer therapy based on X-ray excited photodynamic therapy and hyperthermia induced by radiofrequency magnetic fields
Dr. Giancarlo Salviati, IMEM CNR

14:50 Iron oxide Nanocubes for tumor ablation and controlled drug release under magnetic hyperthermia
Dr. Maria Elena Materia, IIT

15:15 Coffee Break

15:40 Hands-on session

17:00 End of the workshop

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imem

nB nanoScale Biomagnetics