

## NMR ASPECTS OF COLLOIDS SCIENCE

DECEMBER 11<sup>TH</sup>, 2017

Roma, Consiglio Nazionale delle Ricerche, Aula Marconi, Piazzale Aldo Moro, 7

Colloid science plays a central role in different disciplines (biology, chemistry, physics, material science, food science, nanomedicine) since colloids are involved in natural processes and daily life. Nuclear magnetic resonance spectroscopy has given a significant contribution in the investigation of colloidal systems because of its unique ability to elucidate molecular structure, dynamics and function. This workshop on NMR aspects of Colloids Science has an interdisciplinary purpose and will provide researchers from different disciplines with the opportunity to learn about the broad applicability of advanced NMR methodologies, as well as to appreciate the power of other methodologies, to study molecular structures, dynamics and interfaces of these complex systems.

### PROGRAM

#### Registration 9.30-10.00

10.00-10.10 **Marco Geppi (GIDRM President)** Opening remarks

#### Scientific Session 1

10.10-10.40 **Elena Curti (University of Parma)**

<sup>1</sup>H NMR Relaxometry to investigate complex food matrices: application on food hydrocolloids

10.45-11.15 **Luciano Galantini (Sapienza University, Rome)**

Bile acid derivatives: from supramolecular to supracolloidal assembly

#### Coffee Break 11.15-11.40

11.40-12.10 **Fernando Porcelli (Tuscia University, Viterbo)**

Structure and lipid Interactions of newly designed antimicrobial peptides with enhanced activity and specificity against human pathogens

12.15-12.45 **Luigi Ambrosone (University of Molise)**

Manufacturing and applications of biomedical nanodevices

#### Lunch 12.50-14.25

#### Scientific Session 2

14.25-14.55 **Fioretta Asaro (University of Trieste)**

Quadrupolar nuclei and self-diffusion coefficients in the structural and dynamic characterization of concentrated micellar systems by NMR

15.00-15.30 **Fabrizio Mancin (University of Padova)**

Self-organized nanoreceptors for discriminative NMR chemosensing

15.35-16.05 **Gerardo Palazzo (University of Bari)**

A pulsed gradient spin-echo NMR approach to the microstructure and interfacial composition of microemulsions

16.10-16.40 **Panel discussion and concluding remarks**

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### Info

Registration deadline is **December 1<sup>st</sup>, 2017**

50 € for non-GIDRM members, inclusive of 2017 GIDRM membership; 30€ for 2017 GIDRM members

contacts: [roma2017@gidrm.org](mailto:roma2017@gidrm.org)

### Organizing Committee

Noemi Proietti, Donatella Capitani,  
Luisa Mannina, Anatoly Sobolev,  
Giovanna Mancini, Giorgio Giardini.

### Scientific Board

Marco Geppi, Lucia Calucci, Donatella Capitani,  
Michele Chierotti, Mariapina D'Onofrio,  
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