

## EMIDS WORKSHOP

# "The breakthrough of Molecular Imaging in the field of the future in vivo diagnostic procedures"

September 10-12, 2014

Molecular Biotechnology Center, Via Nizza 52, Torino, Italy

### OBJECTIVES

Molecular imaging is a rapidly emerging biomedical research discipline which allows the visual representation, characterization, and quantification of biological processes at the cellular and subcellular levels within intact living organisms. The term "molecular imaging" implies the convergence of multiple image-capture techniques, basic cell/molecular biology, chemistry, medicine, pharmacology, medical physics, biomathematics, and bioinformatics into a new imaging paradigm.

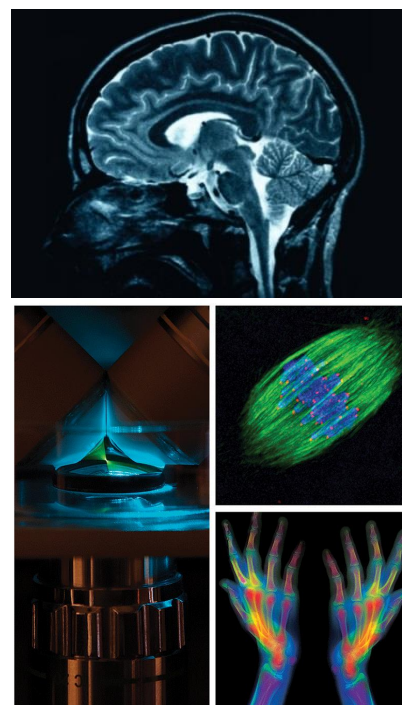
The purpose of the Workshop is to show how different imaging modalities, coupled with tailored imaging probes able to recognize specific pathologic markers, allow the visualization and quantification of disease evolution and the evaluation of therapy response.

### PUBLIC

Undergraduate students (MSc) and PhD students coming from different curricula (chemistry, biology, biotechnology, physics and medicine)

### CREDITS

1 ECT for students coming from the universities forming the EMIDS partnership. The others will get a certificate of attendance.



### PROGRAM

Wednesday September 10	Thursday September 11	Friday September 12
9h30 - 12h30 <b>Welcome &amp; Registration</b>	9h00 - 10h00 <b>DCE-MRI: principles and techniques</b> Dario Longo - IBB/CNR Napoli	9h00 - 10h30 <b>Cell labelling</b> Simonetta Geninatti - University of Torino
12h30 - 13h30 <b>Introduction to Molecular Imaging</b> Silvio Aime - University of Torino	10h00 - 11h00 <b>Designing MRI targeting agents</b> Simonetta Geninatti - University of Torino	10h30 - 12h00 <b>CE ST experiment</b> Giuseppe Ferrauto - University of Torino
13h30 - 14h30 <i>Lunch Time</i>	11h00 - 11h30 <i>Coffee Break</i>	12h00 - 12h30 <i>Coffee Break</i>
14h30 - 15h30 <b>MRI introduction</b> Walter Dastrù - University of Torino	11h30 - 12h30 <b>CEST agents</b> Daniela Delli Castelli - University of Torino	12h30 - 14h00 <b>Hyperpolarized experiment</b> Francesca Reineri - University of Torino
15h30 - 16h30 <b>Gd(III) complexes: basic relaxometric characterization</b> Eliana Gianolio - University of Torino	12h30 - 13h30 <b>Hyperpolarized MRI: metabolic imaging</b> Francesca Reineri - University of Torino	14h00 - 15h00 <i>Lunch Time</i>
16h30 - 17h00 <i>Coffee Break</i>	13h30 - 14h30 <i>Lunch Time</i>	15h00 - 17h00 <b>Final consideration and remarks</b> <b>Final student assessment</b>
17h00 - 18h00 <b>Responsive Contrast Agents</b> Giuseppe Diglio - University of Piemonte Orientale	14h30 - 16h00 <b>Relaxometric characterization of Gd(III) complexes and NMRD analysis</b> Eliana Gianolio / Simona Baroni - University of Torino	
<b>Theoretical lesson</b>	16h00 - 17h30 <b>DCE-MRI at 1T</b> Dario Longo - IBB/CNR Napoli	
<b>Practical session</b>		

### INFORMATION AND REGISTRATION

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**Registration deadline: 31/08/2014**