



UNIVERSITÀ DEGLI STUDI DI TORINO

ID

TIC13\_DIP\_BIOTECH

## ***Teaching for International Courses– Visiting Professors Academic year 2017/2018***

<b>2nd term</b>
<b>COURSE TITLE</b> In vivo diagnostics: MRI/OI/US/PAI
<b>Scientific area</b> Inorganic and General Chemistry
<b>Department of Molecular Biotechnology and Health Sciences</b>
<b>English-taught degree course</b> Master in Molecular Biotechnology
<b>Language used to teach</b> English
<b>Teaching Commitment: 20 hours</b>
<b>Course summary</b> The course is aimed at providing the basic principles and the main preclinical and clinical applications of the following in vivo imaging technologies: Magnetic Resonance Imaging (MRI), Optical Imaging (OI), Ultrasound Imaging (US), and Photoacoustic Imaging (PAI). Particular attention will be devoted to the applications in the context of molecular imaging and theranostic fields, including the preparation and characterization of imaging probes as well as acquisition protocols and post-processing analysis.
<b>Learning objectives</b> The student will acquire information on the basic principles governing the imaging technologies illustrated during the course, with special reference to the design of the most suitable imaging probes for the desired application. He/she will also acquire knowledge on both the standard acquisition protocols and the post-processing analysis.
<b>Tutorship activities</b> The visiting professor will be available to discuss the research activities carried out by the students during their thesis project.
<b>Lab activities</b>
<b>Other activities besides the course: i.e. seminars and conferences addressed to PhD students and research fellows, dissemination conferences</b> The visiting professor will give seminars on topics related to his/her scientific interest and competence that will be addressed to all the research staff working at the hosting Department as well as to any other researcher at UniTO.

### **Visiting Professor Profile**

The visiting professor will have a solid teaching experience with scientific independence and proven ability in

coordinating a research group. He/she will have robust background in the field of the imaging technologies described in the course, with particular reference to the design of imaging probes and/or post-processing analysis. Such activity will be assessed by assessing his/her scientific CV in terms of publications number and quality, participation at international meetings, and coordination of research projects.

**Contact person at the Department**

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