

Eliana Gianolio was born in 1971 in Torino. She graduated in Chemistry at the University of Turin in 1996 and obtained the PhD in Biochemical Science in 2001 with a project entitled "Study of non-covalent adducts between proteins and paramagnetic complexes" University of Torino, Dept. of Chemistry IFM. She began her career at the Department of Chemistry IFM of the University of Turin in the NMR spectroscopy laboratory coordinated by Prof. S. Aime. In the period 2005-2021 she had a permanent position as research technician (EP4) at the Dept. of Molecular Biotechnologies and Health Sciences (www.dbmss.unito.it) and Molecular Imaging Center (www.cim.unito.it) of the University of Torino. In July 2021 she was appointed Associate Professor at the same university where she is affiliated with the Dept. of Molecular Biotechnology and Health Sciences. From May 2020, she is Joint Research Unit (JRU) Manager for the Euro-BioImaging Multi-Modal Molecular Imaging (MMMI) Italian Node infrastructure (www.mmmi.unito.it).

Research Activities

EG research activity is in the field of design and testing of imaging agents for in vitro and in vivo applications, with a special focus on Magnetic Resonance Imaging (MRI) paramagnetic contrast agents. Along the years, her research work has dealt with the elucidation of the relationships between solution structure/ dynamics of metal complexes and the determinants of their proton relaxation enhancement with the aim of generating molecular imaging reporters endowed with high sensitivity and specificity.

The main fields of interest are the following:

- 1) Design, characterization and in vivo validation of paramagnetic (Gd/Mn/Fe) complexes as contrast agents for MRI
- 2) Fast field-cycling Relaxometry
- 3) Nanosized probes for targeted Molecular Imaging applications
- 4) Preclinical study of the issue of Gd-retention in the brain and other tissues upon repeated administrations of commercial Gadolinium based contrast agents.

She is co-author of **119 peer-reviewed papers** on international journals, **7 book chapters** and **3 patents**. From Scopus, **h-index** of **38** and **5096 citations**.

Teaching Activities:

1997: Entrustment of the General and Inorganic Chemistry Course - Faculty of Pharmacy - (40 hours/year)

Since 2005/2006: Integrative activity for the General and Inorganic Chemistry Course for the Degree in Biotechnologies, University of Torino (35 hours/year)

Since 2021/2022: Co-award of the Proteomics Course for the Master Degree in Molecular Biotechnology at the University of Torino (24 hours/year).

Since 2021/2022: Co-award of the Supramolecular and Bioinorganic course for the Master Degree in Molecular Biotechnology at the University of Torino (24 hours/year).

Since 2022-2023: Co-award of the “In vivo diagnostics: Imaging Probes” course for the Master Degree in Biotechnological and Chemical Science in Diagnostics at the University of Torino (24 hours/year +12 hours/year of integrative activity)

2022-2023: Course of General and Inorganic Chemistry for the degree in Strategic Sciences of the University of Torino (21 hours/year)

2007-2016: Teaching activities at international summer schools (MRI, Raman and Food Technologies, Porto Conte Ricerche, Tramariglio (Alghero), PhD courses (Light microscopy and imaging techniques”, PhD in Nanoscience and advanced Technologies, University of Verona), and international Schools in the frame of the “Technological Training Platform” DiMI (Diagnostic Molecular Imaging), EMMI Intensive Programme and Lifelong Learning Programme (LLP).

Supervision (as Relator) of 10 Master Degree thesis students and 7 PhD students.

Scientific Organizations/Collaborations

- Member of the EU COST Actions D18 “Lanthanides in Diagnosis and Therapy”, D38 “Metal-based Systems for Molecular Imaging”, TD1004 “Theragnostics”, and CA15209 “European Network on NMR Relaxometry (EURELAX)”.
- Member of the European Society for Molecular Imaging (ESMI), of the European Society of Magnetic Resonance in Medicine and Biology (ESMRMB), of the Italian Group of Discussion on Magnetic Resonance (GIDRM).
- Member of the European Gadolinium Retention Evaluation consortium (e-GREC).
- Associated to the Inter-University Consortium for Research in Metal Chemistry in Biological Systems (CIRCMSB)
- Associated to the Institute of Biostructures and Bioimages (IBB) of the National Research Council (CNR).
- Industrial partners: Bracco Imaging Spa, Cage Chemical Srl, Stelar

Other Academic activities

- Vice-president of the Master degree in Biotechnological and Chemical Science in Diagnostics of the University of Torino
- Responsible for the Quality Insurance for the Dep. of Molecular Biotechnologies and Health Science of the University of Torino
- Member of the Didactic Commission of the Dep. of Molecular Biotechnologies and Health Science

Editorial activity

Member of the Editorial Board of “Biosensors” and the Reviewer Board of “Life” journals.