

Dario Livio Longo, Ph.D.

Curriculum Vitae



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Bio and Education

Biographical Sketch:

Dario Longo obtained a Master Science degree in Chemistry and Pharmaceutical Technologies in 2002 (108/110 cum laude) and a Ph.D. degree in Biochemical Sciences in 2007 from the University of Turin. After a period as a fellow at the Department of Chemistry, University of Turin, in the lab of Prof. Silvio Aime, working on the development of novel Gd-based contrast agents, he moved to the Department of Molecular Biotechnology and Health Sciences, University of Torino, (2012) working on CEST contrast agents. In 2014 he becomes First Researcher (tenure-track) at the Institute of Biostructures and Bioimaging (IBB), National Research Council of Italy (CNR) working on new MRI-based applications for investigating tumor acidosis by developing innovative approaches for quantifying tumor pH in vivo. After returning at the University of Turin with an Assistant Professor tenure-track position (RTDA, 2017 and then RTDB, 2018), since 2018 he was promoted First Researcher at the IBB-CNR, Torino. Since 2020 he is Head of the Research Unit of Torino of the IBB-CNR. The main research activity focuses on the development of novel MRI-based contrast agents (both Gadolinium and CEST agents) and on their applications for assessing tumor microenvironment and treatment response at preclinical level. Additionally, he has strong experience in developing novel MRI-CEST sequences and post-processing procedures to improve CEST quantification.

Currently (March 2025) Dario Longo's research resulted in **94** peer-reviewed publications (Google Scholar: **h-index: 39**; Citations >4300), **13** book chapters and **4** patents.

Present Position:

**Head of the Research Unit of Torino, Institute of Biostructures and Bioimaging (IBB),
National Research Council of Italy (CNR)**

Education:

Ph.D., Bio-Chemical Sciences, 2007, University of Torino

Thesis: “Computational approaches for studying contrast agents used in Magnetic Resonance Imaging”

Thesis advisor: Prof. Silvio Aime

M.Sc., Chemistry and Pharmaceutical Technologies, 2002, University of Torino

Thesis: “Computational approaches for the prediction of the selectivity of non-steroidal anti-inflammatory drugs towards the two isoenzymes COX-1 and COX-2”

Thesis advisor: Prof. Giuseppe Ermondi

Employment:

2020-current **Institute of Biostructures and Bioimaging (IBB), National Research Council of Italy (CNR)**
Head of the Research Unit of Torino

2018-current **Department of Molecular Biotechnology and Health Sciences, University of Torino**
Adjunct Lecturer in Cancer Imaging

2018-current **Institute of Biostructures and Bioimaging (IBB), National Research Council of Italy (CNR)**
First Researcher

2017-2018 **Department of Molecular Biotechnology and Health Sciences, University of Torino**
Assistant Professor, Tenure-track (RTDA)

2014-2017 **Institute of Biostructures and Bioimaging, National Research Council of Italy (CNR)**
First Researcher, Tenure-track

2012-2014 **Department of Molecular Biotechnology and Health Sciences, University of Torino**
Senior preclinical MRI scientist

2007-2012 **Department of Chemistry, University of Torino**
Preclinical MRI scientist
Teaching Assistant of “General and Inorganic Chemistry course” for Pharmaceutical master’s degree (2004-2008)

2003-2007 **Department of Chemistry, University of Torino**

Graduate Fellow, computational chemistry

2002-2003 **BioIndustry Park – Integrated Laboratory of Advanced Methodologies (LIMA)**
Research assistant

Professional Memberships:

European Society of Molecular Imaging (ESMI), International Society of Cancer Metabolism (ISCaM), European Society of Magnetic Resonance in Medicine and Biology (ESMRMB), International Society of Magnetic Resonance in Medicine – Italian Chapter (AIRMM)

Research Experience

The scientific activity is directed towards the development and characterization of contrast agents for Magnetic Resonance Imaging (MRI) based on i) paramagnetic coordination complexes of Gd (III) and / or other lanthanides as responsive probes or with high-relaxivity, ii) molecules of natural origin (natural compounds, proteins, polymers) as biocompatible and safe contrast agents and iii) iodinated compounds used in computed tomography (CT) applications as innovative contrast agents for CEST (Chemical Exchange Saturation Transfer) imaging at the preclinical level. These new contrast agents are exploited for developing new procedures for the evaluation of the tumor microenvironment (vascularization, acidosis) and to quantify the therapeutic response to drugs in different murine pathological models.

Awards and honors:

2021	Included in the list “Top Italian Scientist – Chemistry Area”
2020-2031	National Scientific Qualification (Abilitazione Scientifica Nazionale - ASN). Qualified for the position of Full Professor in General and Inorganic Chemistry (Disciplinary Field 03/B1) by the Italian Ministry of Education and Research (MIUR)
2017-2028	National Scientific Qualification (Abilitazione Scientifica Nazionale - ASN). Qualified for the position of Associate Professor in General and Inorganic Chemistry (Disciplinary Field 03/B1) by the Italian Ministry of Education and Research (MIUR)
2018	RTDB (Time-Determined Research Tenure, Type B), University of Torino
2017	RTDA (Time-Determined Research Tenure, Type A), University of Torino

2010	Best poster, World Molecular Imaging Congress, category “Imaging Technology and Development” poster #0302A
2010	Travel Stipend Award, World Molecular Imaging Congress (700 \$)
2009	Travel Stipend Award, World Molecular Imaging Congress (700 \$)
2008	Travel Stipend Award, Gordon Research Conference - In Vivo Magnetic Resonance (500 \$)

Project involvement and coordination

I’ve been involved in several projects at national and European level, including several projects as Principal Investigator or Scientific Responsible of a local unit of research. Since 2017 I have raised funds for a total of ca. **1.470.000 €** from peer-reviewed projects and of ca. **130.000 €** from private companies.

Ongoing Research Support

Title: “Multidimensional MRI mapping of tumor acidosis: tracking spatial heterogeneity and temporal evolution”

Dates: 2018-2025, 60 months

Funds: 495K €

Project Coordinator: Dario Longo (IBB-CNR, IT)

Role: Principal Investigator

Agency / Grant Number: AIRC – MFAG 2017 / #20153

Title: Increasing Lutetium production, while leveraging metabolic imaging to enhance theranostics effectiveness (ILLUMINATE)”

Dates: 2024-2029, 54 months

Funds: 250K €

Project Coordinator: Prof. Dennis Klomp (UMC Utrecht)

Role: Local unit coordinator

Agency / Grant Number: Innovative Health Initiative / #101172722

Title: “Founding a Global Image Data Ecosystem (FoundingGIDE)”

Dates: 2024-2026, 30 months

Funds: 137K €

Project Coordinator: EuroBioImaging ERIC (Prof. John Eriksson)

Role: WP leader and Local unit coordinator

Agency / Grant Number: HORIZON-INFRA-2023-DEV-01/ # 101130216

Title: “Euro-BioImaging - Vision - Open Science - Landscape - Visibility - Excellence (Evolve)”

Dates: 2024-2027, 36 months

Funds: 170K €

Project Coordinator: EuroBioImaging ERIC (Prof. John Eriksson)

Role: Local unit coordinator

Agency / Grant Number: HORIZON-INFRA-2023-DEV-01 / #101130986

Title: “European Federation for Cancer Images (EUCAIM)”

Dates: 2023-2026, 48 months

Funds: 104K €

Project Coordinator: Prof. Luis Martí Bonmatí (La Fe University and Polytechnic Hospital Valencia- Spain)

Role: Local unit coordinator

Agency / Grant Number: DIGITAL-2022-CLOUD-AI-02 / #101100633

Title: “A European-wide foundation to accelerate Data-driven Cancer Research (EOSC4Cancer)”

Dates: 2022-2025, 33 months

Funds: 132K €

Project Coordinator: Prof. Alfonso Valencia (BARCELONA SUPERCOMPUTING CENTER- Spain)

Role: Local unit coordinator

Agency / Grant Number: HORIZON-INFRA-2021-EOSC-01/ #101058427

Completed Research Support

Title: “Imaging dalle molecole alla Preclinica (IMPARA)”

Dates: 2022-2024, 36 months

Funds: 90K €

Project Coordinator: Marcello Mancini (IBB-CNR)

Role: Local Unit coordinator

Agency / Grant Number: Programma Operativo Nazionale Ricerca e Innovazione (PON) – MIUR / # PIR01_00023

Title: “Health Research & Innovation Cloud (HealthyCloud)”

Dates: 2021-2023, 30 months

Funds: 25K €

Project Coordinator: Prof. Juan González (Biocomputing Unit – IACS, Institute for Health Science in Aragon, Spain)

Role: Researcher

Agency / Grant Number: H2020 - COORDINATION AND SUPPORT ACTIONS (CSAS)/ #965345

Title: “Providing an open collaborative space for digital biology in Europe (EOSC-LIFE)”

Dates: 2019-2023, 48 months

Funds: 149.375,00 €

Project Coordinator: Niklas Blomberg, (EMBL - European Molecular Biology Laboratory, Germany)

Role: Researcher

Agency / Grant Number: Horizon 2020-INFRAEOSC-2018-2 / #824087

Title: “Evaluation of MRI monophasic image denoising methods”

Dates: 2022-2023, 12 months

Funds: 30K €

Project Coordinator: Dario Longo (IBB-CNR, IT)

Role: Scientific Responsible

Company: Olea Medical (France)

Title: "Metodi innovativi di imaging molecolare per lo studio di malattie oncologiche e neurodegenerative (MOLIM ONCOBRAIN LAB)"

Dates: 2018-2021, 29 months

Principal Investigator: M. Salvatore (eHealthNet)

Role: Researcher

Agency / Grant Number: Programma Operativo Nazionale Ricerca e Innovazione PON R&I 2014-2020 / ARS01_00144

Title: "Sviluppo di metodi di denoising di immagini MRI-CEST"

Dates: 2022-2023, 12 months

Funds: 28K €

Project Coordinator: Dario Longo (IBB-CNR, IT)

Role: Scientific Responsible

Company: Olea Medical (France)

Title: "Imaging extracellular pH as a new MRI diagnostic tool (PHeMRI)"

Dates: 2017-2019, 30 months

Funds: 70K €

Project Coordinator: Walter Dastrù (University of Torino, IT)

Role: Co-PI

Agency / Grant Number: Progetti di Ateneo - CSP 2016 / CSTO165925

Title: "GLucoCEST Imaging of Neoplastic Tumours (GLINT)"

Dates: 2016-2019, 48 months

Principal Investigator: X. Golay (University College London, UK)

Role: Researcher

Agency / Grant Number: FP7-HEALTH-2015 / #667510

Title: "Coordinated Research Infrastructures Building Enduring Life-science Services (CORBEL)"

Dates: 2015-2019, 48 months

Project Coordinator: Niklas Blomberg, ELIXIR

Role: Researcher

Agency / Grant Number: Horizon 2020 / #654248

Title: "Regenerative potential of extracellular vesicles-derived from mesenchymal stem cells on epithelial wound healing"

Dates: 2017-2020, 36 months

Project Coordinator: Giovanni Camussi (University of Torino, IT)

Role: Researcher

Agency / Grant Number: MIUR / PRIN201572SHXJ

Title: "Closed-loop Molecular Environment for Minimally Invasive Treatment of Patients with Metastatic Gastrointestinal Stromal Tumours (MITIGATE)"

Dates: 2013-2017, 48 months

Principal Investigator: S. Schoenberg (University Mannheim, Germany)

Role: Researcher

Agency / Grant Number: FP7-HEALTH-2013 / #602306

Title: "From the elucidation of the ligand-induced allosteric activation of fatty acid binding proteins and their association with membranes to the design of inhibitors of lipid uptake"

Dates: 2008-2011, 36 months

Principal Investigator: M. Assfalg

Role: Local Unit coordinator

Agency / Grant Number: MIUR / FIRB RBF08R70U

Total Cost: 245.700,00 €

Title: "Nanosistemi per nuove applicazioni terapeutiche guidate dalla RMI"

Dates: 2011-2013, 24 months

Principal Investigator: S. Aime

Role: Researcher

Agency / Grant Number: MIUR / PRIN 2009235JB7

Title: "Nano-sized Systems for Innovative Biotechnological Applications: Imaging-guided Therapy (Nano-IGT)"

Dates: 2009-2012, 36 months

Principal Investigator: S. Aime

Role: Researcher

Agency / Grant Number: Regione Piemonte - Bando Converging technologies 2007

Title: "Procedure Innovative di Imaging Molecolare per la Diagnostica e il Monitoraggio Terapeutico"

Dates: 2009-2012, 36 months

Principal Investigator: S. Aime

Role: Researcher

Agency / Grant Number: Regione Piemonte/ PIIMDMT

Title: "Sviluppo di metodi innovativi nel campo della diagnostica per immagini"

Dates: 2007-2010, 36 months

Principal Investigator: S. Aime

Role: Researcher

Agency / Grant Number: MIUR / FIRB RBIP06293N

Title: "Sonde ad alta sensibilità per applicazioni di imaging molecolare mediante risonanza magnetica"

Dates: 2006-2008, 24 months

Principal Investigator: S. Aime

Role: Researcher

Agency / Grant Number: MIUR / PRIN 2005039914

School/Conference Organizer

Title: 10th International Workshop on Chemical Exchange Saturation Transfer

Date: 16-20 September 2024 – Nurnberg, Germany

Role: Scientific committee

Title: 1st Workshop on Emerging Trends in Molecular Imaging

Date: 19-20 April 2023 – Torino, Italy

Role: Scientific committee

Title: Metabolism Meets Function - International Meeting - A journey into the functional significance of the cellular metabolic programs

Date: 19 July 2019 – Torino, Italy

Role: Organization committee

Title: EU Intensive Programme “Probes and Models for Imaging Diseases and Therapy”

Date: 23 September - 4 October 2013

Role: Scientific Supervisor

Grant Number: 2013-1-IT2-ERA10-52973 - 31.842,00 €,

Partners: Universities of Torino, Paris Sud XI, INSTN (France), Brussels (Belgium), Creta (Greek), Technical University Munich – TUM and Friburg (Germany), Erasmus MC Rotterdam (Netherlands) and Valencia (Spain)

Summary: This grant award funded a two-week course offering an in-depth training on 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.

Title: EU Intensive Programme “Probes and Models for Imaging Diseases and Therapy”

Date: 17-28 September 2012

Role: Scientific Supervisor

Grant Number: 2012-1-IT2-ERA10-38864 -28.454,00 €

Partners: Universities of Torino, Paris Sud XI, INSTN (France), Brussels (Belgium), Creta (Greek), Technical University Munich – TUM and Friburg (Germany), Erasmus MC Rotterdam (Netherlands) and Valencia (Spain)

Summary: This grant award funded a two-week course offering an in-depth training on 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.

Title: Scientific Supervisor of EU Intensive Programme “Design, Synthesis and Validation of Imaging Probes”

Date: 12-23 September 2011

Role: Scientific Supervisor

Grant Number: 2011-1-IT2-ERA10-27079 - 31.478,00 €

Partners: Universities of Torino, Paris Sud XI, INSTN (France), Brussels (Belgium), Creta (Greek), Coimbra (Portugal), Eindhoven (Netherlands) and Debrecen (Hungary)

Summary: This grant award funded a two-week course to develop an in-depth and up-to-date training covering the design, synthesis and characterization of imaging probes, including their functionalization and labeling for different imaging modalities.

Title: EU Intensive Programme “Design, Synthesis and Validation of Imaging Probes”

Date: 13-24 September 2010

Role: Scientific Supervisor

Grant Number: 2010-1-IT2-ERA10-16293 - 31.478,00 €

Partners: Universities of Torino, Paris Sud XI, INSTN (France), Brussels (Belgium), Creta (Greek), Coimbra (Portugal), Eindhoven (Netherlands) and Debrecen (Hungary)

Summary: This grant award funded a two-week course to develop an in-depth and up-to-date training covering the design, synthesis and characterization of imaging probes, including their functionalization and labeling for different imaging modalities.

Title: EU Intensive Programme “Design, Synthesis and Validation of Imaging Probes”

Date: 7-18 September 2009

Role: Scientific Supervisor

Grant Number:2009-1-IT2-ERAIO-07900 -30.420,00 €

Partners: Universities of Torino, Paris Sud XI, INSTN (France), Brussels (Belgium), Creta (Greek), Coimbra (Portugal), Eindhoven (Netherlands) and Debrecen (Hungary)

Summary: This grant award funded a two-week course to develop an in-depth and up-to-date training covering the design, synthesis and characterization of imaging probes, including their functionalization and labeling for different imaging modalities.

Committee Activities

- 2024 – present Senior Editor for the Molecular Imaging in Biology (MIB) Journal
- 2023 – present Promoter and founding member of the Italian young ESMI group (yITAMIC – young ITALian Molecular Imaging Community)
- 2022 – present Elected Council Member of the CEST (Chemical Exchange Saturation Transfer) Society
- 2022 – present Founding member of the Chemistry Study Group of the European Society of Molecular Imaging (ESMI)
- 2022 – present Member of the Image Data Management working group of the Global BioImaging (GBI) international network of imaging infrastructures
- 2020 – present Leader of the Data Management Working Group of the medical nodes for the EuroBioImaging-ERIC Research Infrastructure
- 2020 – present Liaison Officer of the Joint Research Unit (JRU) of the EuroBioImaging Research Infrastructure Multi-Modal Molecular Imaging Italian Node
- 2020 - 2026 Elected Council Member of the European Society of Molecular Imaging (ESMI)
- 2022 - present Coordinating Committee of the ESMI (European Society of Molecular Imaging) Mentoring Programme
- 2022 SubCategory Chair “MRI Probes - Chemistry”,

- European Molecular Imaging Meeting (EMIM)

 - 2022 SubCategory Chair “Chemistry and Bioengineering Category”, World Molecular Imaging Congress (WMIC)
 - 2021 SubCategory Chair “Chemistry, Biology, and Bioengineering Category”, World Molecular Imaging Congress (WMIC)
 - 2020 SubCategory Chair “Chemistry, Biology, and Bioengineering Category”, World Molecular Imaging Congress (WMIC)
 - 2017 – 2021 Italian representative of the Management Committee (MC), EU COST Action “PARENCHIMA” CA16103 “Magnetic Resonance Imaging Biomarkers for Chronic Kidney Disease”
 - 2017 – present member of the Young Investigator Award Committee at the EMIM
 - 2018 – present Scientific Committee Member, Molecular Biotechnology Center, University of Torino
 - 2018 – present Management Committee Member, Molecular Biotechnology Center, University of Torino
 - 2008 – present Member, European Society of Molecular Imaging (ESMI)
 - 2018 – 2019 Category Chair “Chemistry Probes”, European Molecular Imaging Meeting
 - 2014 – 2017 Category Chair “Chemistry Probes”, European Molecular Imaging Meeting
 - 2012 – 2014 Educational Committee Member, European Society of Molecular Imaging (ESMI)

Didactic Activity

- 2019 - present Lecturer for the ‘In vivo Imaging of Cancer Therapy’ (BIO0188) Master Science course at Molecular Biotechnology Curricula, University of Torino, Torino, Italy.

- 2017 - 2018 Lecturer for the ‘Imaging Signal Processing‘ (BIO0105) Master Science course at Molecular Biotechnology Curricula, University of Torino, Torino, Italy.
- 2004-2008 Teaching assistant for “General and Inorganic Chemistry course” for Pharmaceutical Master Science Degree, University of Torino, Torino, Italy

Invited Speaker

46. **2025** EMIM congress, lecture on “FoundingGIDE - A Global Image Data Ecosystem (GIDE)” Bilbao, Spain, 13 March 2024
45. **2024** CEST workshop, the 10th International Workshop on Chemical Exchange Saturation Transfer, lecture on “Tumor pH imaging using MRI-CEST”, Nurnberg, Germany, 17 September 2024
44. **2024** GIDRM day, lecture on “Diamagnetic CEST-MRI contrast agents: an overview of molecules and of emerging applications”, Alessandria, Italy, 31 May 2024
43. **2023** ESMRMB congress European Society of Magnetic Resonance in Medicine and Biology, lecture on “MRI-CEST imaging of tumor acidosis to assess cancer invasiveness and treatment response to novel anticancer drugs”, for the GREC (Gadolinium Research & Education Committee) meeting, Basel, Switzerland, 4 October 2023
42. **2023** ESMRMB congress European Society of Magnetic Resonance in Medicine and Biology, lecture on “MRI-CEST imaging of tumor acidosis to assess cancer invasiveness and treatment response to novel anticancer drugs”, for Frontiers in Preclinical MRI meeting, Basel, Switzerland, 4 October 2023
41. **2023** Doctorate school in Genetics, Molecular and Cellular Biology, University of Pavia, lecture on “CEST agents: from preclinical to clinical applications”, Pavia, Italy, 14 April 2023
40. **2023** EMIM congress, lecture on “Introduction to data sharing and FAIR principles” Salzburg, Austria, 16 March 2023

39. **2022** ISMRM Italian Chapter, IX Congress of Italian Association in Magnetic Resonance in Medicine, lecture on “Emerging MRI-CEST approaches for potential clinical applications”, Pisa, November 24, 2022
38. **2022** PET is wonderful meeting, lecture on “FAIR principles: guidelines and applications.”, Edinburgh, Scotland, September 28, 2022
37. **2022** ISCAM meeting, IX Congress of the International Society in Cancer Metabolism, lecture on “Imaging Tumor Acidosis: from preclinical to clinical application” Torino, Italy, 29 June - 2 July 2022
36. **2022** ESMI meeting Educational Session on “Synthesis of MRI probes” – lecture on “Contrast agents for Magnetic Resonance Imaging: basics and applications” Thessaloniki, Greece, 15-18 March 2022
35. **2021** 8th Annual (Virtual) Congress of the European Society for Translational Medicine on Solid Tumors Therapeutics (EUSTM-2021), lecture on “Imaging of tumor acidosis for monitoring response to novel anticancer therapies”, virtual, 20-26 September 2021
34. **2021** Aspect Imaging Webinar, lecture on “Low field MRI for investigating tumor vascularization: from novel probes to preclinical applications” virtual, 8 June 2021
33. **2021** Doctorate school in Biochemical Sciences, University of Turin, lecture on “CEST agents: from preclinical to clinical applications”, virtual, Italy, 27 May 2021
32. **2020** Miniworkshop on “Molecule Imaging & Brain Diseases”, Jinhui International Academic Forum, Fudan University, China – lecture on “MRI-based tumor pH imaging approaches in brain tumors” virtual, 15 December 2020
31. **2020** INFRAFRONTIER Conference: Targeting Cancer with Animal Models – lecture on “Imaging tumor acidosis in preclinical murine tumor models” virtual, 7 October 2020
30. **2020** 5th ESMRMB-GREC (European Society in Magnetic Resonance in Medicine and Biology – Gadolinium Research) – lecture on “Non-Gadolinium based contrast agents” virtual, 30 September 2020
29. **2020** 11th Scientific Symposium on Clinical Needs, Research Promises and Technical Solutions in Ultrahigh Field Magnetic Resonance – lecture on “Pushing the Boundaries of Chemical

Exchange Saturation Transfer (CEST) Imaging at Ultrahigh Magnetic Fields”, virtual, 4 September 2020

28. **2019** 3rd International conference on Functional Renal Imaging – lecture on “Magnetisation Transfer (MT) and Chemical Exchange Saturation Transfer (CEST)”, Nottingham, UK, October 15-17 2019

27. **2019** ESMRMB congress European Society of Magnetic Resonance in Medicine and Biology, lecture on “Glucose as a Contrast Agent for MRI: The Hopes, the Hype and the Facts”, Rotterdam, The Netherlands, 5 October 2019

26. **2019** Frontiers in Preclinical MRI lecture on “Pushing the Boundaries of Cancer Imaging” Rotterdam, The Netherlands, 2 October 2019

25. **2019** Moffitt Cancer Center, Cancer Physiology Department Seminar, lecture on “Non-invasive imaging of tumor acidosis: novel MRI-based approaches and applications”, Tampa, Florida (USA), 21 May 2019

24. **2019** ESTRO 38 meeting (European Society in Radiotherapy and Oncology), lecture on “MRI-CEST Imaging of tumor acidosis”, Milano, Italy, 29 April 2019

23. **2019** Doctorate school in Biochemical Sciences, University of Eastern Piedmont, lecture on “CEST agents: from preclinical to clinical applications”, Alessandria, Italy, 20 February 2019

22. **2018** CEST meeting, the 7th International workshop on chemical exchange saturation Transfer imaging, lecture on “Functional renal imaging with MRI-CEST” Beijing, China, 12-15 November 2018

21. **2018** ISCAM meeting, V Congress of the International Society in Cancer Metabolism, lecture on “MRI-based approaches for imaging tumour acidosis” Bratislava, Slovakia, 17-20 October 2018

20. **2018** Magnetic Resonance Seminar, lecture on “MRI-CEST imaging of tumor acidosis” Max Planck Institute for Biological Cybernetics, Tübingen, Germany 27 September 2018

19. **2018** Sarcoma workshop, lecture on “Functional and Molecular Imaging in Cancer” Bertinoro, Italy, 31 May-2 June 2018

18. **2018** ISMRM Italian Chapter, IX Congress of Italian Association in Magnetic Resonance in Medicine, lecture on “MRI-CEST contrast agent: from preclinical to clinical applications” Padova, Italy, 10-11 May 2018
17. **2016** ESMRMB congress European Society of Magnetic Resonance in Medicine and Biology, Vienna, Austria, 26-29 October 2016, lecture on “New developments using CEST agents” for the Educational Session
16. **2016** Doctorate School in Pharmaceutical and Biomolecular Sciences, University of Torino, lecture on “CEST agents and applications” Torino, Italy, 12-14 June 2016
15. **2015** ECR European Congress of Radiology, Vienna (Austria) 4-8 March 2015, lecture on “Multimodal imaging in GIST”
14. **2014** European Molecular Imaging Doctorate School (EMIDS), lecture on “Dynamic Contrast Enhanced (DCE)-MRI: principles and techniques”
13. **2013** EU Intensive Programme “Probes and Models for Imaging Diseases and Therapy” funded by European Commission under LLP (Lifelong Learning Programme) – lectures on “DCE-MRI: principles and techniques”, “Simultaneous NMRD/17O data analysis” and “Analysis of the CEST-MR experiment – Torino, Italy 23 September – 4 October 2013
12. **2012** EU Intensive Programme “Probes and Models for Imaging Diseases and Therapy” funded by European Commission under LLP (Lifelong Learning Programme) – lectures on “DCE-MRI: principles and techniques”, “Simultaneous NMRD/17O data analysis” and “Analysis of the CEST-MR experiment” – Torino, Italy 17-28 September 2012
11. **2011** EU Intensive Programme “Design, Synthesis and Validation of Imaging Probes” funded by European Commission under LLP (Lifelong Learning Programme) – lectures on “Computational Design of Imaging Probes”, “Simultaneous NMRD/17O data analysis” and “Analysis of the CEST-MR experiment” – Torino, Italy 19/9/2011 - 30/9/2011
10. **2011** EU Intensive Programme "Molecular Imaging: industrial context, state of the art, multimodal imaging" funded by European Commission under LLP (Lifelong Learning Programme) lecture on “An introduction to MRI Contrast Agents” Saclay (France) 4-16 December 2011
9. **2011** EU Intensive Programme “NeuroMRI” funded by European Commission under LLP (Lifelong Learning Programme) – lecture on “MRI Contrast Agents” Antwerpen (Belgium) 8-29 November 2011

8. **2010** EU Intensive Program “Design, Synthesis and Validation of Imaging Probes” funded by European Commission under LLP (Lifelong Learning Programme) – lectures on “Computational Design of Imaging Probes”, “Simultaneous NMRD/17O data analysis” and “Analysis of the CEST-MR experiment” Torino, Italy, 13-24 September 2010
7. **2010** EU Intensive Program “Molecular Imaging: industrial context, state of the art, multimodal imaging” funded by European Commission under LLP (Lifelong Learning Programme) - lecture on “An introduction to MRI Contrast Agents” Saclay, France 6-17 December 2010
6. **2009** EU Intensive Program “Design, Synthesis and Validation of Imaging Probes” funded by European Commission under LLP (Lifelong Learning Programme) – lectures on “Computational Design of Imaging Probes” and “Simultaneous NMRD/17O data analysis” Torino, Italy, 6-18 September 2009
5. **2009** Intensive Program “Molecular Imaging: industrial context, state of the art, multimodal imaging” lecture on “An introduction to MRI Contrast Agents” Saclay, France, 7-8 December 2009
4. **2008** DiMI (Diagnostic Molecular Imaging) school on “Synthesis, physico-chemical characterisation and assessment of Lanthanide-based MR Imaging Probes for cellular labeling” lectures on “Analysis of the CEST-MR experiment” and “Simultaneous NMRD/17O data analysis” - Torino (Italy) 13-17 October 2008
3. **2007** DiMI (Diagnostic Molecular Imaging) school on “Synthesis, physico-chemical characterisation and assessment of Lanthanide-based MR Imaging Probes for cellular labeling” lectures on “Analysis of the CEST-MR experiment” and “Simultaneous NMRD/17O data analysis” - Torino (Italy) 24-28 September 2007
2. **2006** DiMI (Diagnostic Molecular Imaging) school on “Synthesis, physico-chemical characterisation and assessment of Lanthanide-based MR Imaging Probes for cellular labeling” lecture on “Simultaneous NMRD/17O data analysis” –Torino (Italy) 23-27 October 2006
1. **2005** Seminar for the Computational Chemistry Course with lecture on “Introduction to Molecular Mechanics”, Faculty of Chemistry, University of Torino

Publications

From **2004** Dr. Longo is co-author of **94** publications on peer-reviewed international scientific

journals with impact factor (**12** as first author, **22** as corresponding author), **4** Patents, **13** book chapters, **45** invited lectures and more than **150** abstract communications at national and international meetings.

Articles:

* = *Corresponding author*

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Patents:

1. PATENT NUMBER US2010135913 “*Ionic and non-ionic radiographic contrast agents for use in combined X-Ray and nuclear magnetic resonance diagnostics*”
Inventors: Aime S, Barge A, Dastrù W, **Longo DL**, Mainero V, Terreno E, Uggeri F;
Applicant: Bracco Imaging S.p.A.
Date: 27 August 2013
2. PATENT NUMBER WO2009EP60680 20090818 “*MRI-CEST diagnostic technique based on non-punctual analysis*”
Inventors: Aime S, Delli Castelli D, **Longo DL**, Stancanello J, Terreno E, Uggeri F;
Applicant: Bracco Imaging S.p.A.
Date: 24 April 2019
3. PATENT NUMBER EP20100190161 20101105 “*CEST systems exhibiting a concentration-independent responsiveness*”
Inventors: Aime S, Delli Castelli D, Fedeli F; **Longo DL**, Terreno E, Uggeri F;
Applicant: Bracco Imaging S.p.A.
Date: 19 March 2019
4. PATENT NUMBER EP20150202355 20151223 “*Ratiometric Pulsed Cest Imaging*”
Inventors: **Longo DL**, Colombo S, Aime S, Consolino L, Arena F
Applicant: Bracco Imaging S.p.A.

Conference Presentations and Abstracts:

154. **EMIM 2025** 20th European Molecular Imaging Meeting, Bilbao (Spain) 11-14 March 2025 – “Longitudinal in vivo assessment of immunotherapy response to a CEA-targeted bispecific T-cell (CEA-TCB) antibody through MRI-CEST tumor pH imaging” **oral contribution**

153. **EMIM 2025** 20th European Molecular Imaging Meeting, Bilbao (Spain) 11-14 March 2025 – “A landscape analysis of ontologies for annotating preclinical image datasets to enhance their findability and accessibility”
152. **GBI_EoE 2024** – GlobalBioImaging Exchange of Experience 2024 – Okazaki (Japan) 29-31 October 2024 – “Development of tools for improving the FAIRification of preclinical image datasets”
151. **CMR24** – Contrast Media Research 2024, Oslo (Norway) 6-9 October 2024 – “Evaluation and validation of Iopamidol MRI-CEST imaging for detecting and visualizing brain tumors in glioblastoma murine models” **oral contribution**
150. **CEST 2024** – The 10th International workshop on Chemical Exchange Saturation Transfer Imaging, Nurnberg (Germany) 16-20 September 2024 – “Investigating MRI-CEST tumor pH imaging to assess prostate cancer aggressiveness”
149. **CEST 2024** – The 10th International workshop on Chemical Exchange Saturation Transfer Imaging, Nurnberg (Germany) 16-20 September 2024 – “Validation of iopamidol-based MRI-CEST imaging to detect and visualize tumor area in glioblastoma murine models” **oral contribution**
148. **ISCaM 2024** – International Society of Cancer Metabolism, Brussels (Belgium) 3-5 July 2024 – “Inducible silencing of pyruvate dehydrogenase kinase 1 (PDK1) to evaluate its effects on tumor acidosis and cancer aggressiveness in a mouse model of triple negative breast cancer”
147. **EMIM 2024** 19th European Molecular Imaging Meeting, Porto (Portugal) 12-15 March 2024 – “Developing Efficient and Open Source Metrics of Image Quality Assessment for Clinical and Preclinical Datasets”
146. **ESMRMB 2023** – 40th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Basel (Switzerland) 4-7 October 2023 – “In vivo MRI-CEST imaging of extracellular tumor pH heterogeneity reveals a different invasive phenotype in two glioblastoma murine models”
145. **ESMRMB 2023** – 40th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Basel (Switzerland) 4-7 October 2023 – “Histological validation of tumour microenvironment acidosis imaging using Iopamidol-based MRI-CEST on three mouse models of human tumors”
144. **WMIC 2023** – World Molecular Imaging Congress, Prague (Czech Republic) 5-9 September 2023 – “Correlation of Iopamidol-CEST pH Images to pO₂ EPRI for Multimodal Quantitative Imaging of Murine Tumors”
143. **SNMMI 2023** – Annual Meeting Society of Nuclear Medicine & Molecular Imaging, Chicago (USA), 24-27 June 2023 “Addition of CEST-MR pH Imaging to a Multi-Modal Approach Using FMISO-PET, DCE-MRI, and EPR-pO₂ to Improve Radiotherapy of Hypoxic Tumors”
142. **EACR 2023** 28th Congress European Association in Cancer Research, Torino (Italy) 12-15 June 2023 “In vivo imaging of spatial tumor pH heterogeneity reveals a different invasive phenotype in two glioblastoma murine models”

141. **EACR 2023** 28th Congress European Association in Cancer Research, Torino (Italy) 12-15 June 2023 “Spatial heterogeneity and temporal evolution of tumor acidosis provides evidence of cancer progression in a transgenic breast cancer murine model”
140. **ISMRM 2023** - Annual Meeting International Society Magnetic Resonance in Medicine, Toronto, (Canada) 3-8 June 2023 – “Validate your CEST simulation!”
139. **ISMRM 2023** - Annual Meeting International Society Magnetic Resonance in Medicine, Toronto, (Canada) 3-8 June 2023 – “Enabling Characterisation of the NAD⁺ Biosynthesis Pathway via in vitro CEST MRI”
138. **ETMI 2023** – First Workshop on Emerging Trends in Molecular Imaging, Torino (Italy) 19-20 April 2023 “Multiparametric MRI characterization of tumor microenvironment reveals a different metastatic phenotype in breast cancer murine models” **oral contribution**
137. **ETMI 2023** – First Workshop on Emerging Trends in Molecular Imaging, Torino (Italy) 19-20 April 2023 “A comparison between Iopamidol and Gadoteridol contrast agents for detecting brain tumors”
136. **ETMI 2023** – First Workshop on Emerging Trends in Molecular Imaging, Torino (Italy) 19-20 April 2023 “Evolution of spatial and temporal tumor acidosis in the MMTV-PyMT mouse model of breast cancer” **best poster award**
135. **EMIM 2023** 18th European Molecular Imaging Meeting, Salzburg (Austria) 14-17 March 2023 – “Validation of iopamidol-based MRI-CEST imaging to detect and visualize tumor area in glioblastoma murine models” **oral contribution**
134. **EMIM 2023** 18th European Molecular Imaging Meeting, Salzburg (Austria) 14-17 March 2023 – “Tumor pH imaging reveals spatial and temporal evolution of tumor acidosis in a transgenic breast cancer murine model” **oral contribution**
133. **EMIM 2023** 18th European Molecular Imaging Meeting, Salzburg (Austria) 14-17 March 2023 – “Implementing FAIR principles into the XNAT platform to manage image workflow and processing for preclinical imaging”
132. **EORTC-NCI-AACR 2022** 34th European Organisation for Research and Treatment of Cancer (EORTC), the National Cancer Institute (NCI) and the American Association for Cancer Research (AACR) Symposium Barcelona (Spain) 26-28 October 2022, “Targeting acidosis to improve immunotherapy in a pancreatic ductal adenocarcinoma model”
131. **CEST 2022** – The 9th International workshop on Chemical Exchange Saturation Transfer Imaging, Atlanta (USA) 7-10 August 2022 – “Implementing a new spatial filter for improving clinical brain tumor APTw contrast at 3T” **oral contribution**
130. **AAIC 2022** – Alzheimer’s Association International Conference, Sand Diego (USA) 31 July – 4 August 2022 “Enabling Characterisation of the NAD⁺ Biosynthesis Pathway via in vitro CEST MRI”
129. Euro-BioImaging Virtual Pub 2022, virtual, 9 July 2022 – “XNAT-PIC: Extending XNAT to Preclinical Imaging Centers” **oral contribution**

128. **ISCaM 2022** – International Society of Cancer Metabolism, Torino (Italy) 29 June – 2 July 2022 – “Optimization of intraperitoneal delivery of iopamidol in orthotopic pancreatic tumor model for CEST-MRI pH imaging”
127. **ISCaM 2022** – International Society of Cancer Metabolism, Torino (Italy) 29 June – 2 July 2022 – “Targeting acidosis to improve immunotherapy in pancreatic ductal adenocarcinoma model” **oral contribution**
126. **ISCaM 2022** – International Society of Cancer Metabolism, Torino (Italy) 29 June – 2 July 2022 – “A non-invasive multiparametric MRI characterization of tumor microenvironment acidosis, vascularization and hypoxia to distinguish between metastatic and non-metastatic murine breast cancer models” **oral contribution**
125. **ISCaM 2022** – International Society of Cancer Metabolism, Torino (Italy) 29 June – 2 July 2022 – “In vivo tumor pH imaging to evaluate metabolic phenotype in two glioblastoma murine models”
124. **ISCaM 2022** – International Society of Cancer Metabolism, Torino (Italy) 29 June – 2 July 2022 – “Assessing in vivo the spatial and temporal evolution of tumor acidosis in a transgenic breast tumor murine model”
123. **EMIM 2022** 17th European Molecular Imaging Meeting, Thessaloniki (Greece) 15-18 March 2022 – “Assessing the capability of CEST pH-imaging, DCE-MRI and OE-MRI techniques to distinguish between metastatic and non-metastatic breast cancers” **oral contribution**
122. **EMIM 2022** 17th European Molecular Imaging Meeting, Thessaloniki (Greece) 15-18 March 2022 – “Multiparametric MRI-based approaches to characterize metabolic and invasiveness landscapes in glioblastoma models” **oral contribution**
121. **ISMRM/ESMRMB 2022** - Joint Annual Meeting ISMRM-ESMRMB London, (United Kingdom) 07-12 May 2022 – “Enabling Characterisation of the NAD⁺ Biosynthesis Pathway via in vitro CEST MRI”
120. **ISMRM/ESMRMB 2022** - Joint Annual Meeting ISMRM-ESMRMB London, (United Kingdom) 07-12 May 2022 – “Principal Component selections and filtering by spatial information criteria for multi-acquisition CEST MRI denoising”
119. **ISMRM/ESMRMB 2022** - Joint Annual Meeting ISMRM-ESMRMB London, (United Kingdom) 07-12 May 2022 – “Improving clinical 3T Amide Proton Transfer weighted contrast in Brain Tumors by using a novel spatial denoising method”
118. **AD/PD22: 16th International Conference on Alzheimer’s & Parkinson’s Diseases** Barcelona (Spain) 15-20 March 2022 – “Enabling Characterisation of the NAD⁺ Biosynthesis Pathway via CEST MRI”
117. **WMIC 2021** – World Molecular Imaging Congress, Miami (virtual) 5-8 October 2021 – “Intraperitoneal delivery of iopamidol to assess extracellular pH of orthotopic pancreatic tumor model by CEST MRI”

116. **ISMRM 2021 workshop on Kidney MRI Biomarkers: The Route to Clinical Adoption** – Lisbon (PT) 10-12 September 2021 – “MRI CEST imaging of renal pH: developing a fast multislice protocol for whole volume coverage and investigation of the pH homeostasis between two murine strains”
115. **EMIM 2021** 16th European Molecular Imaging Meeting, Gottingen (Germany) 24-27 August 2021 – “Characterizing tumor invasiveness of glioblastoma using tumor pH imaging” **oral contribution**
114. **EMIM 2021** 16th European Molecular Imaging Meeting, Gottingen (Germany) 24-27 August 2021 – “Visualizing in vivo spatial and temporal tumor acidosis evolution during breast cancer progression”
113. **EACR-ESOI 2021** Imaging Cancer: Gaining insights from cells to organisms, virtual 29-30 June 2021 – “Assessing spatial and temporal evolution of tumor acidosis by using MRI-CEST pH imaging in the PyMT transgenic breast murine model” **oral contribution**
112. **EACR-ESOI 2021** Imaging Cancer: Gaining insights from cells to organisms, virtual 29-30 June 2021 – “MRI-CEST tumor acidosis imaging for assessing tumor invasiveness in a glioblastoma murine model”
111. **Euro-BioImaging User Forum 2021**: Understanding and Fighting Cancer, virtual, 17 June 2021 – “Development of a MRI-based GlucoCEST approach for imaging tumor metabolism” **oral contribution**
110. **EACR 2021** 26th Congress European Association in Cancer Research, virtual 10-17 June 2021 – “Visualizing in vivo spatial and temporal tumor acidosis evolution during breast cancer progression”
109. **EACR 2021** 26th Congress European Association in Cancer Research, virtual 9-12 June 2021 – “Evaluating tumour acidosis in vivo by MRI-CEST pH imaging to assess breast cancer metastatic potential”
108. **CEST 2020** – The 8th International workshop on Chemical Exchange Saturation Transfer Imaging, virtual 9-11 November 2020 – “Multislice RARE based single-shot CEST MRI for volumetric tumor acidosis characterization” **oral contribution**
107. **CEST 2020** – The 8th International workshop on Chemical Exchange Saturation Transfer Imaging, virtual 9-11 November 2020 – “An hybrid denoising method for improving CEST-MRI contrast quantification and pH accuracy” **oral contribution**
106. **ESMRMB 2020** – 37th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Barcellona (Spain) 30 September -2 October 2020 – “Improving CEST-MRI contrast quantification in 3T in vivo data”
105. **ESMRMB 2020** – 37th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Barcellona (Spain) 30 September -2 October 2020 – “Comparison between GlucoCEST MRI and 18F-FDG PET in monitoring therapy response in murine breast cancer 4T1 models”

104. **ESMRMB 2020** – 37th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Barcellona (Spain) 30 September -2 October 2020 – “Kmaps: A flexible, open source MITK framework for Dynamic Contrast Enhanced MRI Analysis” - Software Exhibit presentation
103. **ESMRMB 2020** – 37th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Barcellona (Spain) 30 September -2 October 2020 – “XNAT-PIC: Expanding XNAT to Preclinical Imaging Centers” – Software Exhibit presentation
102. **ESMRMB 2020** – 37th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Barcellona (Spain) 30 September -2 October 2020 – “A detailed in vitro and in vivo comparison of D-Glucose and 3-O-Methyl-D-glucose as MRI-CEST contrast agents” **oral contribution**
101. **WMIC 2020** – World Molecular Imaging Congress, Montreal (virtual) 7-10 October 2020 – “Multi-parametric MRI-CEST imaging of tumor metabolism and acidosis to investigate cancer aggressiveness”
100. **WMIC 2020** – World Molecular Imaging Congress, Montreal (virtual) 7-10 October 2020 – “A detailed in vitro and in vivo comparison of D-Glucose and 3-O-Methyl-D-glucose as MRI-CEST contrast agents”
99. **WMIC 2020** – World Molecular Imaging Congress, Montreal (virtual) 7-10 October 2020 – “Evaluation of a multi-slice single-shot MRI-CEST sequence for volumetric pH imaging” **oral contribution**
98. **WMIC 2020** – World Molecular Imaging Congress, Montreal (virtual) 7-10 October 2020 – “Removal of noise in MRI-CEST images for improving tumor pH imaging”
97. **WMIC 2020** – World Molecular Imaging Congress, Montreal (virtual) 7-10 October 2020 – “In vivo MRI-CEST tumor pH imaging can detect early resistance to proton pump inhibitors in human prostate cancer murine models”
96. **WMIC 2020** – World Molecular Imaging Congress, Montreal (virtual) 7-10 October 2020 – “Comparison between GlucoCEST MRI and 18F-FDG PET in monitoring therapy response in murine breast cancer 4T1 models.”
95. **EMIM 2020** 15th European Molecular Imaging Meeting, virtual 24-27 March 2020 – “Development and validation of three different methods to improve CEST contrast calculation in presence of fat”
94. **CMR19** – Contrast Media Research 2019, Erice (Italy) 10 -14 November 2019 – “Clinical plasma volume expanders as potential MRI-CEST blood-pool agents for tumor perfusion imaging” **oral contribution**
93. **Functional Renal Imaging 2019** – 3rd International Scientific Symposium, Nottingham (UK) 15-17 October 2019 – “Mapping the dysregulation of renal acid-base homeostasis upon sepsis-induced shock by CEST-MRI”

92. **WMIC 2019** – World Molecular Imaging Congress, Montreal (Canada) 4-7 September 2019 – “Pharmacodynamics of targeted urease and checkpoint blockade using CEST and 31P MRSI. Is there a role for hyperpolarized 13C & 15N?”
91. **ESMRMB 2019** – 36th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Rotterdam (The Netherlands) 3-5 October 2019 – “MRI-CEST imaging of tumor metabolism and acidosis for characterizing murine tumor aggressiveness”
90. **ESMRMB 2019** – 36th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Rotterdam (The Netherlands) 3-5 October 2019 – “An Optimized Multislice Sequence for 3D MRI-CEST Imaging”
89. **ESMRMB 2019** – 36th Annual Scientific Meeting, European Society in Magnetic Resonance in Medicine and Biology, Rotterdam (The Netherlands) 3-5 October 2019 – “Clinical plasma volume expanders as potential MRI-CEST blood pool agents for tumor perfusion imaging” **oral contribution**
87. **IEEE 2019** International Symposium on Biomedical Imaging (ISBI'19), Venice (Italy), 8-11 April, 2019 – “A Customizable Workflow Engine to Store, Process and Share Medical Images for Preclinical Imaging Centers”
86. **EMIM 2019** 14th European Molecular Imaging Meeting, Glasgow (United Kingdom) 19-22 March 2019 – “An Optimized Multislice Sequence for 3D MRI-CEST pH Imaging” **oral contribution**
85. **EMIM 2019** 14th European Molecular Imaging Meeting, Glasgow (United Kingdom) 19-22 March 2019 – “Preclinical evaluation of Magnesium-phthalocyanine/albumin adduct as theranostic agents for photodynamic therapy in a glioma murine model”
84. **EMIM 2019** 14th European Molecular Imaging Meeting, Glasgow (United Kingdom) 19-22 March 2019 – “Investigating radiation-free MRI-CEST technique for the assessment of cancer metabolism in two tumor murine models”
83. **EMIM 2019** 14th European Molecular Imaging Meeting, Glasgow (United Kingdom) 19-22 March 2019 – “Improving contrast quantification of MRI-CEST images by applying a denoising approach based on a new combination between non-local means filter and anisotropic diffusion tensor” **oral contribution**
82. **EMIM 2019** 14th European Molecular Imaging Meeting, Glasgow (United Kingdom) 19-22 March 2019 – “Developing a customizable workflow engine for storing, sharing, processing and reusing medical images for preclinical imaging facilities”
81. **EMIM 2019** 14th European Molecular Imaging Meeting, Glasgow (United Kingdom) 19-22 March 2019 – “Mapping the dysregulation of acid-base homeostasis upon sepsis-induced shock by CEST-MRI”
80. **CEST 2018** – The 7th International workshop on Chemical Exchange Saturation Transfer Imaging, Beijing (China) 12-15 November 2018 - “Combining GlucoCEST and pH imaging for an improved characterization of tumor metabolism” **oral contribution**

79. **ISCaM 2018** – International Society of Cancer Metabolism, Bratislava (Slovakia) 17-20 October 2018 – “Combining GlucoCEST and pH imaging for an improved characterization of tumor metabolism”
78. Workshop on Animal PoPulation ImagING, Paris (France), 22 June 2018 – “Development of a configurable workflow for processing preclinical images” **oral contribution**
77. **ISMRM/ESMRMB 2018** - XXVI Annual Meeting & Exhibition, Paris (France), 19-21 June 2018 – “Assessment of a clinically feasible Bayesian fitting algorithm using a simplified description of Chemical Exchange Saturation Transfer (CEST) Imaging”
76. **ISMRM/ESMRMB 2018** - XXVI Annual Meeting & Exhibition, Paris (France), 19-21 June 2018 – “Optimization of OH-CEST contrast at 3T for clinical application of glucoCEST MRI”
75. **EMIM 2018** 13th European Molecular Imaging Meeting, San Sebastian (Spain) 20-23 March 2018 – “Metal-phthalocyanine/albumin adducts as contrast agents for photoacoustic, optical and magnetic resonance imaging”
74. **EMIM 2018** 13th European Molecular Imaging Meeting, San Sebastian (Spain) 20-23 March 2018 – “Investigating MRI-CEST pH mapping for assessing sepsis-induced Acute Kidney Injury”
73. **CancerTO** – Imaging of Cancer Dynamics, Torino (Italy), 7-9 March 2018 – “Multiparametric MRI approach for assessing therapeutic response to imatinib in Gastrointestinal Stromal Tumor (GIST)”
72. **TOPIM 2018** – hot TOPlics in IMaging, Imaging Metabolism 2018, Les Houches, France, 21-26 January 2018. “Imaging tumor acidosis as a potential biomarker for assessing the early response to dichloroacetate by MRI-pH CEST approach”
71. **Functional Renal Imaging 2017** – 2nd International Scientific Symposium, Berlin (Germany) 11-13 October 2017 – “Simultaneous assessment of kidney perfusion and pH in an acute kidney injury murine model exploiting a dynamic CEST-MRI approach” **oral contribution**
70. **Functional Renal Imaging 2017** – 2nd International Scientific Symposium, Berlin (Germany) 11-13 October 2017 – “Noninvasive evaluation of renal pH homeostasis after ischemia reperfusion injury by CEST-MRI pH mapping” **oral contribution**
69. **CMR17** – Contrast Media Research 2017, Durango, Colorado (USA) 21 -25 October 2017 – “Exploring a new role for the old-fashioned iodinated contrast media as chemical exchange spin-lock (CESL) agents” **oral contribution**
68. **ISCaM 2017** – International Society of Cancer Metabolism, Bertinoro (Italy) 19-21 October 2017 – “Combined in vivo imaging of hypoxia and pH reveals a lack of spatial correlation in a breast tumor murine model”
67. **CEST 2017** – Symposium on Chemical Exchange Saturation Transfer, Nashville, Tennessee (USA) 7-9 August 2017 - “Quantification of hydroxyl exchange of D-Glucose at physiological conditions for optimization of glucoCEST MRI”

66. **CEST 2017** – Symposium on Chemical Exchange Saturation Transfer, Nashville, Tennessee (USA) 7-9 August 2017 - “MRI-CEST iodinated contrast media as potential alternatives to conventional Gd-based agents for contrast-enhanced tumor imaging” **oral contribution**
65. **CEST 2017** – Symposium on Chemical Exchange Saturation Transfer, Nashville, Tennessee (USA) 7-9 August 2017 - “Exploring iodinated contrast media as chemical-exchange spin-lock (CESL) agents for tumor imaging” **oral contribution**
64. **CEST 2017** – Symposium on Chemical Exchange Saturation Transfer, Nashville, Tennessee (USA) 7-9 August 2017 - “Plasma volume expanders as potential blood pool contrast agents for MRI-CEST applications” **oral contribution**
63. **CEST 2017** – Symposium on Chemical Exchange Saturation Transfer, Nashville, Tennessee (USA) 7-9 August 2017 - “MRI-CEST pH imaging: a new tool for assessing in vivo the early response and onset of resistance to dichloroacetate in a murine breast cancer model” **oral contribution**
62. **EMIM 2017** 12th European Molecular Imaging Meeting, Cologne (Germany) 5-7 April 2017 – “Conjugation of melanin to BSA for an improved biocompatible probe for Photoacoustic Imaging” **oral contribution**
61. **EMIM 2017** 12th European Molecular Imaging Meeting, Cologne (Germany) 5-7 April 2017 – “Combined hypoxia and pH imaging in vivo reveals a lack of spatial correlation in a breast tumor murine model” **oral contribution**
60. **EMIM 2017** 12th European Molecular Imaging Meeting, Cologne (Germany) 5-7 April 2017 – “Plasma volume expanders as potential blood pool contrast agents for MRI-CEST applications”
59. **EMIM 2017** 12th European Molecular Imaging Meeting, Cologne (Germany) 5-7 April 2017 – “Deoxycholic acid functionalized hexameric GdAAZTA agent for DCE-MRI applications”
58. **ISMRM 2017** - XXV Annual Meeting & Exhibition, Honolulu (USA) 22-27 April 2017 “CEST signal of lipids”
57. **Spring School for Advanced Imaging In Biological Research**, Rehovot (Israel) 14-17 March 2017 - “Bio-active substrate analogs for visualization of transglutaminase isoenzymes activities during embryo implantation in mice”
56. **ISCaM 2016** – International Society of Cancer Metabolism, Brussels (Belgium) 26-29 October 2016 – “MRI-CEST pH imaging: a new tool for assessing in vivo the early response and onset of resistance to dichloroacetate in a murine breast cancer model” **oral contribution**
55. **ISCaM 2016** – International Society of Cancer Metabolism, Brussels (Belgium) 26-29 October 2016 – “Evaluating breast cancer metastatic potential by imaging extracellular tumour pH”
54. **WMIC 2016** – World Molecular Imaging Congress, New York (USA) 7-10 September 2016 – “Bio-active substrate analogs for visualization of transglutaminase isoenzymes specific activity during embryo implantation in mice”

53. **WMIC 2016** – World Molecular Imaging Congress, New York (USA) 7-10 September 2016 – “Looking for alternatives to metal-based relaxation enhancers: a comparison of tumor perfusion parameters estimated using Gd-based and iodinated contrast media within the MRI modality”
52. **WMIC 2016** – World Molecular Imaging Congress, New York (USA) 7-10 September 2016 – “Assessing breast cancer metastatic potential by extracellular tumour pH imaging”
51. **WMIC 2016** – World Molecular Imaging Congress, New York (USA) 7-10 September 2016 – “Combination of MRI-based approaches to visualize the pivotal role of tumor microenvironment for metastatic GIST progression and assessment to therapy”
50. **EMIM 2016** 11th European Molecular Imaging Meeting, Utrecht (Netherlands) 8-10 March 2016 – “Looking for alternatives to metal-based relaxation enhancers: a comparison of tumor perfusion parameters estimated using Gd-based and iodinated contrast media within the MRI modality” **oral contribution**
49. **EMIM 2016** 11th European Molecular Imaging Meeting, Utrecht (Netherlands) 8-10 March 2016 – “Evaluating breast cancer metastatic potential by imaging extracellular tumour pH” **oral contribution**
48. **EMIM 2016** 11th European Molecular Imaging Meeting, Utrecht (Netherlands) 8-10 March 2016 – “Multiparametric MRI approach can predict therapeutic response to imatinib in Gastrointestinal Stromal Tumours (GIST)”
47. **CMR15** – Contrast Media Research 2015, Berlin (Germany) 7 -10 November 2015 – “Seeking for alternatives to metal-based relaxation enhancers: pre-clinical investigation with iodinated contrast media as MRI-CEST contrast agents” **oral contribution**
46. **EMIM 2015** 10th European Molecular Imaging Meeting, Tuebingen (Germany) 18-20 March 2015 – “A novel ratiometric approach for transforming CEST molecules into pH-responsive contrast agents” **oral contribution**
45. **EMIM 2015** 10th European Molecular Imaging Meeting, Tuebingen (Germany) 18-20 March 2015 – “Combining MRI-CEST pH mapping with PET FDG uptake for improved tumor characterization” **oral contribution**
44. **EMIM 2015** 10th European Molecular Imaging Meeting, Tuebingen (Germany) 18-20 March 2015 – “Multiparametric characterization of kidney function and perfusion exploiting a dynamic CEST approach” **oral contribution**
43. **EMIM 2015** 10th European Molecular Imaging Meeting, Tuebingen (Germany) 18-20 March 2015 – “MRI-CEST pH imaging: a new tool for assessing in vivo the metabolic response of breast cancer cells to dichloroacetate”
42. **EMIM 2015** 10th European Molecular Imaging Meeting, Tuebingen (Germany) 18-20 March 2015 – “Vascular permeability and plasmatic volume as potential surrogate biomarkers for assessment of imatinib-resistant Gastrointestinal Stromal Tumor (GIST)”
41. **ECR 2015** European Congress of Radiology, Vienna (Austria) 4-8 Marzo 2015 – “Multimodal imaging in GIST” **oral contribution**

40. **CEST 2014** – Communications Exchange in Saturation Transfer, Colletterto Giacosa, Torino (Italia) 8-9May 2014 – “Exogenous DiaCEST agents” **oral contribution**
39. **WMIC 2014** – World Molecular Imaging Congress, Seoul (South Korea) 17-20 September 2014 – “A novel CEST-MRI ratiometric approach for pH-imaging” **oral contribution**
38. **WMIC 2014** – World Molecular Imaging Congress, Seoul (South Korea) 17-20 September 2014 – “Combining MRI-CEST pH mapping with PET FDG uptake for characterizing tumor microenvironment”
37. **WMIC 2014** – World Molecular Imaging Congress, Seoul (South Korea) 17-20 September 2014 – “Melanin-Like Nanoparticles as a Novel Contrast Agent for Optoacoustic Imaging”
36. **WMIC 2014** – World Molecular Imaging Congress, Seoul (South Korea) 17-20 September 2014 – “Assessing the heterogeneity of an antiangiogenic treatment response by exploiting a clustering approach for quantitative DCE-MRI data”
35. **EMIM 2014** 9th European Molecular Imaging Meeting, Antwerp (Belgium) 4-6 June 2014 – “Gd-CN-AAZTA-MADEC: optimizing a blood-pool Gd-complex for preclinical MRI procedures at low field” **oral contribution**
34. **EMIM 2014** 9th European Molecular Imaging Meeting, Antwerp (Belgium) 4-6 June 2014 – “EXCI-CEST: exploiting pharmaceutical excipients as safe MRI-CEST contrast agents”
33. **WMIC 2013** – World Molecular Imaging Congress, Savannah (Georgia - USA) 18-21 September 2013 – “Functional Imaging of the angiogenic switch in the HER-2/Neu transgenic mouse model of human breast cancer by DCE-MRI”
32. **EMIM 2013** – 8th European Molecular Imaging Meeting, Torino (Italia) 26-28 May 2013 - “Functional evaluation of normothermic ischemia/reperfusion injury in mice kidney combining CEST-pH mapping and DWI MRI” **oral contribution**
31. **EMIM 2013** – 8th European Molecular Imaging Meeting, Torino (Italia) 26-28 May 2013 - “An improved MRI Gd-based method for mapping pH in vivo” **oral contribution**
30. **EMIM 2013** – 8th European Molecular Imaging Meeting, Torino (Italia) 26-28 May 2013 - “Longitudinal functional imaging of the HER-2/Neu transgenic mouse model of human breast cancer by DCE-MRI and Diffusion Weighted Imaging”
29. **EMIM 2013** – 8th European Molecular Imaging Meeting, Torino (Italia) 26-28 May 2013 - “Characterization of MRI-CEST properties of five non-ionic Iodinated CT contrast agents”
28. **ISMRM2013** - XXI Annual Meeting & Exhibition, Salt Lake City (Utah - USA) 20-26 April 2013 – “Longitudinal functional imaging of the HER-2/Neu transgenic mouse model of human breast cancer by DCE-MRI and Diffusion Weighted Imaging”;
27. **WMIC 2012**– World Molecular Imaging Congress, Dublino (Irlanda) 5-8 September 2012 – “Functional evaluation of normothermic ischemia/reperfusion injury in mice kidney combining CEST-pH mapping and BOLD MRI”

26. **WMIC 2012**– World Molecular Imaging Congress, Dublino (Irlanda) 5-8 September 2012 – “DCE-MRI evaluation of an antiangiogenic DNA-based vaccine treatment comparing two image analysis methods”
25. **ISMRM 2012** - XX Annual Meeting & Exhibition, Melbourne (Australia) 5-11 May 2012 – “Imaging the pH changes in a glycerol-induced acute kidney injury mouse model with a MRI-CEST pH-responsive contrast agent”;
24. **CMR11** – Contrast Media Research 2011, Galveston (Texas - USA) 29 October - 1 November 2011 – “Iodinated Contrast Agents for MRI-CEST applications: a comparison between Iopamidol and Iopromide” **oral contribution**
23. **WMIC 2011** – World Molecular Imaging Congress, San Diego (California - USA) 7-10 September 2011 - “Imaging the pH evolution of an acute kidney injury mouse model by means of Iopamidol, a new MRI-CEST pH-responsive contrast agent” **oral contribution**
22. **ECCO XVI 2011** - European Multidisciplinary Cancer Congress, Stockholm (Svezia) 23-27 September 2011 - “Efficacy of DNA vaccination against Anaplastic Lymphoma Kinase (ALK) in Non Small Cell Lung Carcinoma (NSCLC)
21. **EMIM 2011** – 6th European Molecular Imaging Meeting, Leiden (Olanda) 19-21 June 2011 - “Imaging the pH evolution of an acute kidney injury model by means of Iopamidol, a new MRI-CEST pH-responsive contrast agent”
20. **ISMRM 2011** - XIX Annual Meeting & Exhibition, Montreal (Canada) 7-13 May 2011; “MRI of cells and mice at 1 and 7 Tesla with Gd-targeting agents: when the low field is better” **oral contribution**
19. **ISMRM 2011** - XIX Annual Meeting & Exhibition, Montreal (Canada) 7-13 May 2011; “Characterization of iopamidol chemical exchange saturation transfer (CEST) MRI for ratiometric imaging of pH”
18. **ISMRM 2011** - XIX Annual Meeting & Exhibition, Montreal (Canada) 7-13 May 2011; “Breathing triggered chemical exchange saturation transfer MRI for pH mapping in the kidneys using a responsive agent at 3T”
17. **WMIC 2010** - World Molecular Imaging Congress, Kyoto (Giappone) 8-11 September 2010 – “A fast acquisition scheme for dynamic CEST detection” – **awarded in the category ‘Imaging Instrumentation and Methodology’**
16. **Gordon Research Conferences 2010** – In Vivo Magnetic Resonance, Proctor Academy, Andover (New Hampshire - USA) 25-30 July 2010 – “Iopamidol, an X-Ray contrast agent for MRI-CEST imaging”
15. **EMIM 2010** – 5th European Molecular Imaging Meeting, Varsavia (Polonia) 26-29 May 2010 - “A fast and robust acquisition scheme for CEST experiments”
14. **CEST 2010** – Communications Exchange in Saturation Transfer, Torino (Italia) 4-5 January 2010 – “Iopamidol, An Established X-Ray Contrast Agent With Peculiar CEST Properties” **oral contribution**

13. **CMR09** – Contrast Media Research 2009, Copenhagen (Danimarca) 11-14 October 2009 – “Evaluating Iopamidol as pH-responsive CEST agent at 3 and 7 T” **oral contribution**
12. **ESMRMB 2009** – 26th Annual Scientific Meeting, Antalya (Turchia) 1-3 October 2009 - “pH mapping by using Iopamidol as ratiometric MRI-CEST agent” **oral contribution**
11. **WMIC 2009**– World Molecular Imaging Congress, Montreal (Canada) 22-26 September 2009 - “Mapping pH in the MR images of mice kidneys by means of Iopamidol as ratiometric CEST agent”
10. **ESMRMB 2008** – 25th Annual Scientific Meeting, Valencia (Spagna) 2-4 October 2008 – “Improving in vivo CEST detectability”
9. **WMIC 2008** – World Molecular Imaging Congress, Nizza (Francia) 10-13 September 2008 – “Interpolation of Z-Spectra by smoothing splines: a method for improving the analysis of CEST-MR images”
8. **Gordon Research Conferences 2008** – In vivo Magnetic Resonance, Proctor Academy, Andover (New Hampshire - USA) 20-25 July 2008 – “Optimizing In Vivo CEST Contrast Detection” **oral contribution**
7. **Bruker MRI users’ meeting**, Milano (Italia) 25 June 2008 “Visualization of MRI CEST agents” **oral contribution**
6. **COST D38** - Metal-Based Systems for Molecular Imaging Applications, Lisbona (Portogallo) 27-29 April 2008 “Improving in vivo CEST detectability”
5. **COST D18** - Lanthanide Chemistry for Diagnosis and Therapy, Orleans (Francia) 31 March - 1 April 2006 “A novel Gd-based MRI contrast agent responsive to the Factor XIII transglutaminase activity”
4. **COST D18** - Lanthanide Chemistry for Diagnosis and Therapy, Orleans (Francia) 31 March - 1 April 2006 “Synthesis and evaluation of a DOTA-biotin trimer for cross-linking of (strept)avidin”
3. **ISMRM 2005** - XIII Scientific Meeting & Exhibition, Miami (USA) 7-13 May 2005; “A new generation of high relaxivity q=2 MRI contrast agents based on eptadentate AAZTA ligand”
2. **COST D18** - Lanthanide Chemistry for Diagnosis and Therapy, Praga (Repubblica Ceca) 24-25 June 2004 “Self-recognition of macrocyclic Ln(III) complexes: an NMR relaxometric study on model systems”
1. **XXI Congresso Società Chimica Italiana** – Torino (Italia) 22-27 June 2003; “Docking strategies in the determination of binding mode of cyclooxygenase inhibitors”

Selected media and public engagement:

- 2025 Invited Speaker, “Fotografie (imaging) del tumore per valutare l'efficacia di farmaci antitumorali” for the BiotecXFuture webinars for the University of Torino, Italy
- 2019 Invited Speaker, “AIRC Incontri con la Ricerca” at Secondary School of S. Benigno Canavese, Italy with 40 students
- 2014 Invited Speaker, “Imaging molecolare per una diagnostica innovativa” Accademia delle Scienze, Torino, Italy

Commission of Trust

Participation in Grant Review panels

National Science Foundation, USA (NSF)
French National Research Agency (ANR)
Research Foundation Flanders, Belgium (FWO)
Austrian Science Fund (FWF)
NHS Research Scotland (NRS)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Deutsche Forschungsgemeinschaft (German Research Foundation, DFG)
Indian Institute of Science (DBT/Wellcome Trust India Alliance)
Israeli Ministry of Innovation, Science and Technology (MOST)
Wellcome Funding England
The Hong Kong Jockey Club Charities Trust

Reviewer for Scientific Meeting Abstracts

European Molecular Imaging Meeting, 2014-present
World Molecular Imaging Meeting, 2020-present

Reviewer for Peer-reviewed Journals:

Magnetic Resonance in Medicine
NMR in Biomedicine
Contrast Media & Molecular Imaging
Journal of Magnetic Resonance Imaging
Molecular Imaging and Biology
Magnetic Resonance Imaging
European Radiology
Investigative Radiology
Biomedical Signal Processing and Control
Bioorganic and Medicinal Chemistry
International Journal of Cancer
Journal of Magnetic Resonance
Magnetic Resonance Materials in Physics, Biology and Medicine (MAGMA)
European Radiology Experimental
European Journal of Radiology Extra
Current Medical Imaging Review
Scientific Reports
Israel Journal of Chemistry
RSC Advances
Frontiers in Chemistry

Frontiers in Aging Neuroscience
Applied Sciences
Current Medicinal Chemistry
Current Molecular Medicine
Inorganic Chemistry
Inorganic Chemistry Frontiers
International Journal of Molecular Sciences
IEEE Access
Frontiers in Oncology
NeuroImage
Diagnostic
Technology in Cancer Research and Treatment
Dalton Transactions
Integrative Cancer Therapies
Medical Journal of Physics
Nature Medicine in Technology
Current Opinion in Chemical Biology

Doctorate committee

Referee of the PhD thesis for the “Dottorato in Medicina Traslazionale in Oncologia ed Ematologia XXXI ciclo” at the University of Genova (2019)

External member of PhD juries for the PhD program in Pharmaceutical and Biomolecular Sciences – XXXII cycle at the University of Torino (2020)

Supervision of undergraduates, graduate students and postdoctoral fellows

In the past 12 years I have been the primary advisor of 10 postdocs, 6 PhD students, and approximately 20 master degree students in Biotechnology, Pharmacy and Computer Science. I have also served on 2 PhD Committees.

Erasmus Internship

- Mar 2023 – Jun 2023 Melina Carbone, BSc, Molecular Biotechnology, Univ. of Leuven (Belgium)
Internship Project: “Imaging tumor microenvironment”
- June 2023 – Sep 2023 Aina Nasolo, MSc, Biomedical Engineering, Univ. of Rennes (France)
Internship Project: “Development of tools for the processing of magnetic resonance images”
- Sep 2024 – Jan 2025 Filipa Fernandes, MSc, Bioengineering, Univ. of Porto (Portugal)
Internship Project: “Developoing image processing tools for MRI-CEST applications”
- Jan 2025 – Feb 2025 Martins Brebant, MSc, Chemistry, Univ. of Mons (Belgium)

Internship Project: “evaluation and characterization of new MRI – CEST (Chemical Exchange saturation transfer) contrast agents”

Bachelor

- Nov 2016 – Oct 2018 Alice Antonello, BSc, Molecular Biotechnology
Thesis Title: “Applicazioni della Tomografia a Risonanza Magnetica d’Immagine (MRI) per la diagnosi di Insufficienza Renale”
- Feb 2023 – Sep 2023 Giulia Ruella, BSc, Molecular Biotechnology
Thesis Title: “In vivo evaluation of drugs targeting tumor metabolism and extracellular acidification by using Magnetic Resonance pH imaging”
- Feb 2023 – Sep 2023 Barbara Foglino, BSc, Molecular Biotechnology
Thesis Title: “Imaging del pH tumorale mediante la tecnica di Risonanza Magnetica d’Immagine (MRI) per la valutazione in vivo di farmaci che agiscono sulle pompe protoniche”

Master Thesis

- Oct 2009 – Oct 2011 Chiara Pro, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Sviluppo di agenti MRI-CEST come reporter di pH in vivo”
- Oct 2009 – Oct 2011 Alice Busato, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Sviluppo di una sonda MRI per la caratterizzazione del danno renale acuto in modello murino”
- Oct 2011 – Oct 2013 Lorena Consolino, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Valutazione tramite la tecnica DCE-MRI dei cambiamenti di permeabilità vascolare correlati alla progressione tumorale sul modello transgenico BALB-neuT”
- Oct 2011 – Oct 2013 Filippo Michelotti, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Sviluppo di un agente responsivo al pH per la valutazione funzionale del danno renale indotto da Ischemia/Riperfusione mediante tecniche di Imaging”
- Oct 2012 – Oct 2014 Riccardo Abategiovanni, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Proton exchange study in proteins aqueous solutions through a CEST-MRI method”
- Oct 2013 – Oct 2015 Annasofia Anemone, MSc, Molecular Biotechnology, Univ. of Torino

Project Title: “MRI-CEST pH imaging: a new tool for assessing in vivo metabolic response of breast cancer cells to dichloroacetate”

- Oct 2013 – Jul 2016 Chiara Callari, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Derivati solubili della melanina quali mezzi di contrasto per l’imaging optoacustico: validazione su modelli di tumore murini”
- Oct 2014 – Oct 2016 Pietro Irrera, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Developing a MRI-CEST approach for multi-parametric functional characterization of renal ischemia-reperfusion injury in mice”
- Oct 2015 – Dec 2017 Valentina Di Natale, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Investigating CEST-MRI as a tool to detect protein unfolding processes in cancer cells”
- Jun 2016 – Oct 2018 Martina Bracesco, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Combining MRI-based imaging approaches for investigating tumor acidosis and hypoxia in a breast tumor murine model”
- Oct 2016 – July 2018 James Cimino, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Novel bovine serum albumin-based probes for dual Photoacoustic and Magnetic Resonance Imaging of solid tumors”
- Jan 2018 – Oct 2019 Valeria Proietti Dante, MSc, Computer Science, Univ. of Torino
Project Title: “Denoising di immagini MRI tramite PCA e filtro RINLM per migliorare il calcolo del pH dei tumori mediante la tecnica CEST”
- Oct 2018 – Sep 2020 Martina Maltone, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Developing an MRI-based multiparametric approach to characterize whole tumor microenvironment properties”
- Oct 2018 – Dec 2020 Noemi Salmistraro, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Chemical Exchange Saturation Transfer (CEST)-MRI as a non-invasive method for the in vivo evaluation of disrupted protein homeostasis induced by the proteasome-inhibitor bortezomib in a human glioblastoma murine model”
- Oct 2018 – Dic 2021 Deborah Ambrosecchia, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “Multiparametric MRI-based characterization of tumor microenvironment during cancer progression in a transgenic breast tumor murine model”
- Mar 2019 – Apr 2020 Miriam Roberto, MSc, Pharmacy, Univ. of Torino
Project Title: “In vitro and in vivo evaluation of tumor acidosis changes following proton pump inhibitors in murine tumor models”

- Mar 2019 – Apr 2020 Vittoria Ventura, MSc, Pharmacy, Univ. of Torino
Project Title: “Imaging dell’acidosi tumorale per valutare in vivo l’efficacia di farmaci inibitori delle pompe protoniche”
- Jan 2021 – Feb 2022 Elena Botto, MSc, Industrial Biotechnology, Univ. of Milano Bicocca
Project Title: “Caratterizzazione in vivo dell’acidosi tumorale in modelli murini di glioblastoma mediante risonanza magnetica di immagine basata sul metodo CEST”
- Jan 2021 – Oct 2022 Giulia Caranta, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “MRI-CEST based characterization of tumor acidosis in 4T1 and 67NR-derived breast tumor murine models”
- Nov 2022 – present Andrea Ammirati, MSc, Molecular Biotechnology, Univ. of Torino
Project Title: “”

Graduate Students

- Nov 2019 – Sep 2020 Alessia Corrado, Italian National Research Council
Project Title: “Caratterizzazione biochimica e mediante tecniche di Risonanza Magnetica d’Immagine del microambiente tumorale”
- Sep 2018 – Oct 2021 Daisy Villano, University of Torino
Project Title: “Sviluppo di sequenze MRI e di tools per il processing di immagini MRI-CEST”
- Sep 2018 – Feb 2019 Alessandro Paglialonga, University of Torino
Project Title: “Database per processing di immagini di risonanza magnetica d’immagine”
- Jun 2021 – Jan 2023 Elisa Pirotta, University of Torino
Project Title: “Studio del ruolo dei trasportatori di protoni nell’acidosi tumorale in cellule di tumore mammario mediante imaging del pH con tecniche di Risonanza Magnetica d’Immagine MRI-CEST”
- Sep 2021 – present Kranthi Thej Kandula, University of Torino
Project Title: “Sviluppo di una piattaforma federata nel cloud per la gestione di immagini medicali”
- Oct 2021 – Sep 2022 Riccardo Gambino, University of Torino
Project Title: “Implementazione di tools per il processing di immagini MRI-CEST sulla piattaforma XNAT”
- Feb 2022 – present Francesco Gammaraccio, University of Torino
Project Title: “Sviluppo di tools per la gestione e il processing di immagini medicali”
- May 2022 – Mar 2023 Elena Botto, University of Torino
Project Title: “Studio dell’acidosi tumorale mediante tecnica MRI-CEST in modelli murini di glioblastoma”

- Mar 2023 – present Elena Botto, Italian National Research Council
Project Title: “Studio dell’acidosi tumorale mediante tecnica MRI-CEST di imaging del pH in modelli tumorali murini”
- Nov 2022 – Nov 2023 Elisabetta Spinazzola, University of Torino
Project Title: “Sviluppo di tools per la piattaforma XNAT per la gestione di immagini medicali e di metadata”
- May 2024 – May 2025 Tania Orosco Salinas, IBB-CNR
Project Title: “Sviluppo di tools per la gestione e l’annotazione di datasets di immagini medicali in ambito oncologico”

PhD Students

- Jan 2014 – Feb 2017 Lorena Consolino, Pharmaceutical and Biomolecular Sciences – University of Torino
Project Title: “MRI characterization of the tumor microenvironment in murine tumor models”
- Oct 2015 – May 2019 Annasofia Anemone, Pharmaceutical and Biomolecular Sciences – University of Torino
Project Title: “MRI-CEST imaging: investigating new applications to assess tumour microenvironment”
- Oct 2017 – Dec 2020 Pietro Irrera, Biomolecular Sciences – University of Campania “Luigi Vanvitelli”
Project Title: “In vivo MRI-CEST pH imaging: a new tool to investigate in vivo the role of pH homeostasis in renal pathologies and in cancer”
- Oct 2018 – Dec 2020 Chetan Dhakan, Biomolecular Sciences - University of Campania “Luigi Vanvitelli”
Project Title: “Functional and Molecular Imaging Studies for Early Detection of Disease and Monitoring of Therapeutic Treatments”
- Oct 2020 – Mar 2024 Alessia Corrado, Pharmaceutical and Biomolecular Sciences – University of Torino
Project Title: “Investigation of the role of tumor acidosis in cancer progression by using multiparametric MRI techniques”
- Feb 2023 – present Elisa Pirotta, Pharmaceutical and Biomolecular Sciences – University of Torino
Project Title: “Sviluppo di nuovi mezzi di contrasto per uso diagnostico in campo oncologico mediante la tecnica MRI-CEST”

Post-Doctorate

- Feb 2017 – May 2019 Lorena Consolino, University of Torino
Project Title: “Studio del microambiente tumorale mediante tecniche MRI-CEST pH imaging”
- Jun 2018 – May 2019 Amerigo Pagoto, University of Torino
Project Title: “Caratterizzazione di modelli tumorali murini tramite la tecnica MRI-glucoCEST”
- Apr 2018 – Oct 2019 Martina Capozza, University of Torino
Project Title: “Sviluppo di sonde per l’imaging fotoacustico per valutare l’acidosi del microambiente tumorale”
- Jul 2018 – Apr 2019 Bhavna Rani, University of Torino
Project Title: “Caratterizzazione dell’acidificazione del microambiente tumorale in modelli tumorali murini”
- Jun 2019 – Mar 2021 Annasofia Anemone, University of Torino
Project Title: “Utilizzo della tecnica MRI GlucoCEST (Glucose-based Chemical Exchange Saturation Transfer) per valutare in vivo la risposta a farmaci antitumorali”
- Oct 2019 – Mar 2021 Antonella Carella, Italian National Research Council
Project Title: “Studio dell’acidosi tumorale in modelli murini di glioblastoma mediante tecniche biochimiche e di risonanza magnetica d’immagine”
- Jun 2018 – Jun 2020 Sara Zullino, University of Torino
Project Title: “Sviluppo di tools per la gestione e il processing di immagini MRI-CEST”
- Jul 2020 – Jul 2021 Sara Zullino, University of Torino
Project Title: “Sviluppo di tools informatici per la gestione e il processing di immagini precliniche medicali”
- Jun 2018 – Jan 2021 Ferial Romdhane, University of Torino
Project Title: “Sviluppo di sequenze per risonanza magnetica d’immagine per la caratterizzazione in vivo dell’acidosi tumorale”
- Feb 2021 – Jan 2023 Ferial Romdhane, Italian National Research Council
Project Title: “Sviluppo di metodi di denoising di immagini MRI-CEST”
- Mar 2021 – current Antonella Carella, Italian National Research Council

Project Title: “Studio della vascolarizzazione tumorale mediante tecniche di imaging ottico e confronto con metodi di risonanza magnetica d’immagine”

- Sep 2022 – present Cara Carrera, Italian National Research Council
Project Title: “Sintesi e caratterizzazione di agenti di contrasto per applicazioni avanzate in ambito diagnostico e teranostico”
- Feb 2023 – Jan 2025 Feriel Romdhane, Italian National Research Council
Project Title: “Sviluppo di tools per la gestione e il processing di immagini biomedicali”