

Professional experience

- Jen 2022 –* **Associate Professor**, Department of Organic Chemistry, University of Pavia, PV, Italy.
- Jen 2019 – Dec2021* **Fixed Term Researcher (RTDb)**, Department of Organic Chemistry, University of Pavia, PV, Italy.
- Apr 2017* he obtained the **National Scientific Qualification (Abilitazione Scientifica Nazionale-ASN)** for role of Associate Professor.
- Jun 2015- Jul 2015* **Exchange Visiting Scientist**, Consejo Superior de Investigaciones Científicas (CSIC), Instituto di Parasitologia y Biomedicina, Dr. Juan Carlos Morales, 18016 Armilla, Granada, Spain. "G-quadruplex ligands incorporating carbohydrates as a new drugs for cancer therapy".(i-LINK 0924).
- Feb 2015 – Dec 2018* **Fixed Term Researcher (RTDa)**, Department of Organic Chemistry, University of Pavia, PV, Italy. "Synthesis and activation of molecular devices selective for "G-quadruplexes." (ERC-CG615879)
- Nov 2012 – Oct 2014* **Post-doctoral fellow**, Department of Organic Chemistry, University of Pavia, PV, Italy. "Synthesis and activation of molecular devices selective for "G-quadruplexes."
- Nov 2009 – Oct 2012* **Post-doctoral fellow (Co.co.co)**, Department of Organic Chemistry, University of Pavia, PV, Italy. "Novel drugs for target anticancer therapy". (FIRB-IDEAs RBID082ATK_003)
- Jun 2007- Feb 2008* **Ph.D. Exchange Visiting Student**, Cancer Research UK, BioMolecular Structure Group, School of Pharmacy University of London, Prof. Stephen Neidle, 29-39 Brunswick Square, London WC1N 1AX, UK.

Education

- 16 Feb 2010* **Defense Ph.D. Thesis in Chemistry:** "Molecular recognition and selective alkylation of nucleic acids by photoactivatable alkylating agents". Prof. Mauro Freccero Department of Organic Chemistry, University of Pavia, PV, Italy.
- Nov 2006 – Oct 2009* **Ph.D. in Chemistry:** "Prof. Mauro Freccero Department of Organic Chemistry, University of Pavia, PV, Italy.
- 20 Jun 2006* **Degree in Chemical Science** with full marks and honors. Dissertation on: "*Binolams come carriers fotoattivabili di agenti di cross-linking del DNA*" Research Supervisor: Prof. Mauro Freccero Department of Organic Chemistry, University of Pavia, PV, Italy.

Filippo Doria has produced **92** publications on peer-reviewed journals H-index 30, number of citations 2526, by Scopus and H-index 33, number of citations 2998, by Google Scholar. **22 publications as first author and 18 as corresponding author**. Recently he published three-book chapter entitled: 1- "An overview of quadruplex ligands: Their common features and chemotype diversity"; 2- "Photoresponsive molecular

devices targeting nucleic acid secondary structures” in a Special Periodical Reports. Editors SPR in *Photochemistry, Royal Society of Chemistry*, 2018, vol. 46; 3-“Modeling properties and reactivity of quinone methides by DFT calculations” in the book *Wiley Series on Reactive Intermediates in Chemistry and Biology* 2009, 1 (Quinone Methides), 33-67.”

Total IF: 448.462; average IF: 5.84.

The PI has also presented 9 oral presentations, 3 invited oral presentations and (28 posters) at international/national meetings.

Organisational / managerial skills

Member of the Organizing Committee of six scientific international meeting.

Currently responsible for a team of 6 people.

Research Interest

Organic synthesis of selective multifunctional ligands, targeting DNA/RNA secondary structures in human telomeres, oncogene promoters, viruses, and bacteria for theranostic applications. Development of (i) selective turn-on fluorescent probe, (ii) selective ligands targeting different G4 structures, (iii) effective transient and activatable reactants [quinone methide, reactive oxygen species (ROS), carbenes and nitrenes] targeting DNA secondary structures, (iv) a library of XNAs, resulting from the conjugation of G4s ligand to chiral peptide nucleic acids (PNAs) or locked nucleic acids (LNAs), Hybridising to the G4 flanking regions, up- or- down stream to the G-rich strands.

Mentoring

Supervisor (tutor) 20 and (co-tutor) of 22 Graduation thesis, Department of Chemistry, University of Pavia, PV, Italy. Supervisor of a Post-Doc student with one-year fellowship, Department of Chemistry, University of Pavia, PV, Italy (FRG2021-Synthesis and characterization of selective photoactivating ligands for Nucleic Acids.) Supervisor of 2 PhD student and 3 Postgraduate student with one-year fellowship.

Interdisciplinarity

The PI multifaceted i) education (Ph.D. in Chemistry), ii) research expertise, which spans from organic, analytical and photochemical chemistry, to biophysical study, to molecular and cellular biology, and iii) national/international collaborations have allowed and will allow realization of interdisciplinary projects, including aspects of Nano-materials, chemistry, biology, pharmacology and virology.

Patent:

WO2018060423A1. “*NAPHTHALENE DIIMIDE COMPOUNDS FOR TREATMENT OF DISEASES*”, Morales Sánchez Juan Carlos, Pérez-Victoria Moreno de Barreda, José María, Arévalo Ruíz Matilde, Belmonte Reche Efres, Martínez García Marta, Lucas Rodríguez Ricardo, López Rubio José Juan, Freccero Mauro, **Doria Filippo**, Carda Usó Pedro Miguel, Carda Usó Pedro Miguel. P201631265. **2016**