

## PERSONAL INFORMATION

## Fabrizio Vetica

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<https://research.uniroma1.it/synergy-lab-laboratory-organic-synthesis-and-stereoselective-organocatalysis>

Date of birth 25/07/1991 | Nationality Italian

## WORK EXPERIENCE

01/08/2020–present

**Assistant Professor RTDA (fixed-term)**

Sapienza University of Rome, Rome (Italy)

Researcher - Assistant Professor of Organic Chemistry in the Department of Chemistry of the Sapienza University of Rome

15/10/2019–31/07/2020

**Postdoctoral Fellow**

Institute of Organic Synthesis and Photoreactivity (ISOF) - CNR, Bologna (Italy)

Postdoctoral fellow in the Institute of Organic Synthesis and Photoreactivity (ISOF) of the Italian National Research Council (CNR) in Bologna.

Project title: "Reactivity of sulfur containing molecules in delayed-release liposomal forms"

30/01/2020–04/05/2020

**University teaching assistant**

Alma Mater Studiorum - Università di Bologna, Bologna (Italia)

Teaching assistant for the academic year 2019/2020 in the Department of Chemistry "G. Ciamician" for the course of "Organic Chemistry II with Laboratory" for the Bachelor Degree in Chemistry.

30/10/2019–06/12/2019

**University teaching assistant**

Alma Mater Studiorum - Università di Bologna, Bologna (Italia)

Teaching assistant for the academic year 2019/2020 in the Department of Chemistry "G. Ciamician" for the course of "Catalysis in Organic Synthesis" for the Master Degree in Chemistry.

04/01/2019–30/09/2019

**R&D Chemist - Postdoctoral researcher**

Lipinutragen srl, ISOF-CNR, Bologna (Italy)

Lipinutragen srl, Institute of Organic Synthesis and Photoreactivity (ISOF), National Research Council (CNR).

Group of Dr. Chryssostomos Chatgililoglu.

Topic: Radical chemistry in biomimetic conditions and identifications of biomarkers

01/04/2018–30/09/2018

**Research Scientist - Lab Leader**

BASF SE, Ludwigshafen (Germany)

Lab Leader R&amp;D in the department Synthesis &amp; Homogeneous Catalysis

Coordination of 3 technicians, supervising safety, working schedule, yearly evaluation, lab management, project management.

01/02/2016–31/01/2018

**Scientific co-worker**

RWTH Aachen University, Aachen (Germany)

PhD in Organic Chemistry (PhD) at RWTH Aachen University (Aachen, Germany) under the supervision of Prof. Dr. Dieter Enders.

Topic: Organocatalytic Asymmetric Synthesis of Isochromanones, Tetranortriterpenoids and Pyrazolone Derivatives.

Funded by European Research Council (ERC Advanced Grant 320493 "DOMINOCAT")

10/2016–08/2017 **Teaching Assistant**

RWTH Aachen University, Aachen (Germany)

Teaching assistant for the didactic laboratory of Organic Chemistry "Organisch-chemisches Fortgeschrittenenpraktikum für Lehramtskandidaten" RWTH Aachen University

10/2015 **Research fellow**

Università degli Studi Roma Tre, Roma (Italy)

Scholarship as researcher in Università degli studi Roma Tre.

Topic: Organocatalysis applied to the synthesis of pyrrole-benzodiazepines total synthesis of heteropolycyclic derivatives, which have shown an incredible biological activity against cancer cells. The development and optimization of a 12 steps procedure have led to the target scaffold.

04/2014–10/2014 **Research fellow**

Università degli Studi Roma Tre, Roma (Italy)

Scholarship as researcher.

Topic: Planning and preparation of chemical didactic experiments to introduce in MIUR LSOSA platform

09/2014 **Teaching Assistant**

Università degli Studi Roma Tre, Roma (Italy)

Two seminars for the undergraduate students of Chemistry and Laboratory on:

"Inorganic Compounds in water solution: solubility, fractional precipitation and crystallization"

"Chemical reactions: thermodynamic and kinetic aspects"

## EDUCATION AND TRAINING

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01/02/2016–09/02/2018 **PhD in Organic Chemistry**

RWTH Aachen University, Aachen (Germany)

PhD in Organic Chemistry *magna cum laude* at RWTH Aachen University, Aachen, Germany.

Funded by European Research Council (ERC Advanced Grant 320493 "DOMINOCAT")

Thesis: "Organocatalytic Asymmetric Synthesis of Isochromanones, Tetranortriterpenoids and Pyrazolone Derivatives"

Supervisor: Prof. Dr. Dieter Enders

10/2013–16/12/2015 **Master Degree (M.Sc.) in Chemistry**

Sapienza University of Rome, Rome (Italy)

Master Degree (M.Sc.) *summa cum laude* in Chemistry, major in Organic and Biomolecular Chemistry, at "Sapienza" Università di Roma, Rome, Italy.

Thesis: "Organocatalytic Stereoselective synthesis of new 3-hydroxy-benzofuranones derivatives"

Supervisor: Dr. Tecla Gasperi, Prof. M.A. Loreto, Prof. A. Gambacorta

10/2010–16/07/2013 **Bachelor Degree (B.Sc.) in Chemistry**

Sapienza University of Rome, Rome (Italy)

Thesis: "Synthesis of new 3-hydroxy-2(3H)-benzofuranones"

Supervisor: Dr Tecla Gasperi, Prof. M.A. Loreto, Prof. A. Gambacorta

## ADDITIONAL INFORMATION

## Italian National Scientific Habilitation (ASN)

Italian National Scientific Habilitation (ASN) as Associate Professor of Organic Chemistry (disciplinary field 03/C1). Call 2021/2023 (Ministerial Decree n. 553/2021 and 589/2021), achieved on 01/02/2022. Validity 01/02/2022-01/02/2032.

## Other academic appointments

- **2022- present** Member of the National Commission "Test di Accesso (TOLC)" – section of Con.Sienze
- **2021- present** Member of the Didactic Observation Committee for the degree in Technology for Conservation and Restoration of Cultural Heritage (L-43)
- **2021- present** Member of the Rooms and Schedules Committee for the degree in Biochemistry (LM-9)
- **2021- present** Member of the Didactic Committee for the degree in Biochemistry (LM-9)

## Teaching activities

- **2022-present** Appointed Lectured of the course Stereoselective Organocatalysis in the PhD programme in Chemical Sciences (3 CFU, 24 hours)
- **2022-present** supervisor of one PhD student in Chemical Sciences, XXXVIII cycle
- **2022** external supervisor of 2 theses for the Master Degree in Nanotechnologies Engineering
- **2021- present** Appointed Lecturer of the course of the module Bioorganic Reaction Mechanisms of the course Bioorganic Chemistry, for the degree in Biochemistry (LM-9)
- **2020- present** Appointed Lecturer of the course of Organic Chemistry for the degrees in Environmental Sciences (L-32) and Technology for Conservation and Restoration of Cultural Heritage (L-43)
- **2020- present** Supervisor of 8 master degree theses in Chemistry
- **2020- present** Supervisor of 2 bachelor degree theses in Chemistry
- **2020- present** Member of the final exam committee for the Bachelor and Master Degree in Chemistry
- **2020- present** Member of the exam committee for the course Organic Chemistry I, for the degree in Chemical Sciences (L-27)
- **2020- present** Member of the exam committee for the course Bioorganic Chemistry, for the degree in Chemistry (LM-54)
- **2019-2020** Evaluating referee for 1 PhD thesis in Biotechnological, Biocomputational, Pharmaceutical and Pharmacological Sciences XXXIII cycle, Alma Mater Studiorum - University of Bologna
- **2019-2020** Teaching assistant with contract for the course of "Laboratory of organic chemistry" (32 hours), Alma Mater Studiorum - University of Bologna, Bologna (Italy)
- **2019-2020** Teaching assistant with contract for the course of "Catalysis in organic synthesis" (40 hours), Alma Mater Studiorum - University of Bologna, Bologna (Italy),
- **2016-2018** Supervisor of 2 Master Students for their research internships, RWTH Aachen University
- **2017** Teaching assistant for the laboratory course of advances organic chemistry "OCF Lehramt Praktikum" RWTH Aachen University
- **2016** Teaching assistant for the laboratory course of advances organic chemistry "OCF Praktikum" RWTH Aachen University
- **2014** Teaching assistant at Università degli studi RomaTre with contract. Two seminars for the undergraduate students of Chemistry and Laboratory on: "Inorganic Compounds in water solution: solubility, fractional precipitation and crystallization"; "Chemical reactions: thermodynamic and kinetic aspects"

## Publications

## Indexes of the scientific production from WOS and Scopus (06/10/2022)

Number of publications	27
Total citations	489
First author	13
Corresponding author	7
Last author	4
Average IF per publication (year of publication)	5.39
Average IF per publication (2021)	6.63
Total IF (2021)	172.436
<i>h</i> -index (last 10 years)	11
Average citations per publication	18.1

- 28. Daniele Rocco, Vyali Georgian Moldoveanu, Marta Feroci, Martina Bortolami, **Fabrizio Vetica\***  
*"Electrochemical Synthesis of Carbon Quantum Dots"*  
*ChemElectroChem*, **2023**, accepted.
  
- 27. Elisa Sturabotti, **Fabrizio Vetica**, Giorgia Toscano, Andrea Calcaterra, Andrea Martinelli, Luisa Maria Migneco, Francesca Leonelli  
*"N-acetyl-L-phenylalanine racemization during TBTU amidation. An in-depth study for the synthesis of anti-inflammatory 2-(N-acetyl)-L-phenylalanyl-amido-2-deoxy-D-glucose (NAPA)"*  
*Molecules*, **2023**, 581.
  
- 26. Luca Pettazzoni, Francesca Leonelli, Andrea Marrani, Luisa Maria Migneco, Fabrizio Vetica, Lorenzo Celio, Valerio Napoleone, Sara Alfano, Andrea Colecchia, Francesco Amato, Valerio Di Lisio, Andrea Martinelli  
*"Self-healing and reprocessable oleic acid-based elastomer with dynamic S-S bonds as solvent-free reusable pressure sensitive adhesive on copper surface"*  
*Polymers*, **2022**, 4919.
  
- 24. Martina Bortolami, Ingrid Izabela Bogles, Cecilia Bombelli, Fabiana Pandolfi, Marta Feroci,\*  
**Fabrizio Vetica\***  
*"Electrochemical Bottom-Up Synthesis of Chiral Carbon Dots from L-Proline and Their Application as Nano-Organocatalysts in a Stereoselective Aldol Reaction"*  
*Molecules*, **2022**, 5150.
  
- 23. Leonardo Straminelli, Francesco Vicentini, Antonio Di Sabato, Carmela Maria Montone, Chiara Cavaliere, Kari Rissanen, Francesca Leonelli, **Fabrizio Vetica\***  
*"Stereoselective synthesis of spiro-decalin oxindole derivatives via sequential organocatalytic Michael-domino Michael/aldol reaction"*  
*Journal of Organic Chemistry*, **2022**, 10454.
  
- 22. **Fabrizio Vetica**, Anna Sansone, Carla Ferreri, Chryssostomos Chatgililoglu  
*"A Convenient Route to Mono-Trans Polyunsaturated Free Fatty Acids"*  
*Journal of Chemical Research*, **2022**, 1090908.
  
- 21. **Fabrizio Vetica**, Fabiana Pandolfi, Luca Pettazzoni, Francesca Leonelli, Martina Bortolami  
*"Organocatalyst design for the stereoselective annulation towards bicyclic diketones and analogues"*  
*Symmetry*, **2022**, 355.
  
- 20. Martina Bortolami, Fernando Jr. Piamonte Magboo, Rita Petrucci, **Fabrizio Vetica**, Giuseppe Zollo, Marta Feroci  
*"Electrogenerated BF<sub>3</sub> From Tetrafluoroborate-Based Ionic Liquids: Theoretical And Experimental Studies Towards Selective Styrene Oxide Isomerization"*  
*Journal of the Electrochemical Society*, **2021**, 115501.
  
- 19. Martina Bortolami, Leonardo Mattiello, Vincenzo Scarano, **Fabrizio Vetica**, Marta Feroci  
*"In Situ Anodically Oxidized BMIm-BF<sub>4</sub>: a Safe and Recyclable BF<sub>3</sub> Source"*  
*Journal of Organic Chemistry*, **2021**, 16151.
  
- 18. Martina Bortolami, Francesca Leonelli, Marta Feroci, **Fabrizio Vetica\***  
*"Step economy in the Stereoselective Synthesis of Functionalized Oxindoles via Organocatalytic Domino/One-pot Reactions"*  
*Current Organic Chemistry*, **2021**, 11, 1321.
  
- 17. Martina Bortolami, Isabella Chiarotto, Leonardo Mattiello, Rita Petrucci, Daniele Rocco, **Fabrizio Vetica**, Marta Feroci  
*"Organic Electrochemistry: Synthesis and Functionalization of  $\beta$ -Lactams in the 21st Century"*  
*Heterocyclic Communications*, **2021**, 32.
  
- 16. **Fabrizio Vetica**,\* Martina Bortolami, Rita Petrucci, Daniele Rocco, Marta Feroci\*

“Electrogenerated NHCs in organic synthesis: ionic liquids vs organic solvents effects”  
*The Chemical Record*, **2021**, 2130.

▪ 15. **Fabrizio Vetica**, Anna Sansone, Cesare Meliota, Gessica Batani, Marinella Roberti, Chrysostomos Chatgililoglu, Carla Ferreri

“Free radical-mediated formation of trans-cardiolipin isomers, analytical approaches for lipidomics and consequences for the structural organization of membranes”

*Biomolecules*, **2020**, 10, 1189.

▪ 14. **Fabrizio Vetica**,\* Stephen Bailey, Mukesh Kumar, Suruchi Mahajan, Carolina von Essen, Kari Rissanen, Dieter Enders

“Palladium Catalyzed [3+2] Cycloaddition of Vinyl Aziridine and Indane-1,3 diones: Diastereo- and Enantioselective Access to Spiro-Pyrrolidines”

*Synthesis*, **2020**, 52, 2038.

▪ 13. Katarzyna Taras-Goslinska†, **Fabrizio Vetica**†, Grażyna Wenska, Sebastian Barata-Vallejo, Virginia Triantakostanti, Bronisław Marciniak, and Chrysostomos Chatgililoglu

“Converging fate of the oxidation and reduction of 8-thioguanosine”

*Molecules*, **2019**, 24, 3143.

†These authors contributed equally to the paper.

▪ 12. **Fabrizio Vetica**

“Organocatalytic Asymmetric Synthesis of Isochromanones, Tetranortriterpenoids and Pyrazolone Derivatives”

ISBN: 978-3-8439-3504-3. Verlag Dr. Hut, Munchen

*PhD dissertation*, **2018**. (Deutsche Nationalbibliothek, ord. no. 1155056213)

▪ 11. Dieter Enders, Xiang-Yu Chen, Sun Li, **Fabrizio Vetica**, Mukesh Kumar

“N-Heterocyclic Carbene Catalyzed Domino Reactions via Two or More Activation Modes”

*iScience*, **2018**, 1

▪ 10. **Fabrizio Vetica**, Pankaj Chauhan, Suruchi Mahajan, Gerhard Raabe, and Dieter Enders

“Asymmetric Organocatalytic Friedel-Crafts Hydroxyalkylation of Indoles Using Electrophilic Pyrazole-4,5-diones”

*Synthesis*, **2018**, 50, 1039.

▪ 9. Qiang Liu, Xiang-Yu Chen, Sun Li, **Fabrizio Vetica**, Gerhard Raabe, and Dieter Enders

“Twostep synthesis of  $\alpha,\beta$ -unsaturated  $\gamma$ -amino acid esters via N-heterocyclic carbene-catalyzed [4+2] cycloaddition of enals and nitroso compounds”

*Synthesis*, **2018**, 50, 127.

▪ 8. **Fabrizio Vetica**, Stephen Bailey, Pankaj Chauhan, Mathias Turberg, Adjmal Ghaur, Gerhard Raabe, and Dieter Enders

“Desymmetrization of Cyclopentendiones via Organocatalytic Cross-Dehydrogenative Coupling”

*Advanced Synthesis & Catalysis*, **2017**, 359, 3729.

▪ 7. **Fabrizio Vetica**, Pankaj Chauhan, Simon Dochain, Dieter Enders

“Asymmetric organocatalytic synthesis of tetrahydropyrans and their application in total synthesis”

*Chemical Society Review*, **2017**, 46, 1661.

▪ 6. Simon Dochain, **Fabrizio Vetica**, Rakesh Puttreddy, Kari Rissanen, and Dieter Enders

“Combining Organocatalysis and Lanthanide Catalysis: A Sequential One-Pot Quadrupole Domino/Diels-Alder Asymmetric Synthesis of Functionalized Tricycles”

*Angewandte Chemie International Edition*, **2016**, 55, 16153; *Angewandte Chemie*, **2016**, 128, 16387.

This paper has been highlighted in: *Synfacts*, **2017**, 13, 0266.

▪ 5. **Fabrizio Vetica**, Jeanne Fronert, Rakesh Puttreddy, Kari Rissanen, and Dieter Enders

*“Asymmetric organocatalytic synthesis of 4-amino-isochromanones via a direct one-pot intramolecular Mannich reaction”*

*Synthesis*, **2016**, *48*, 4451.

▪ 4. **Fabrizio Vetica**, Renata Marcia de Figueiredo, Emilia Cupioli, Martina Miceli, Augusto Gambacorta, M. Antonietta Loreto, and Tecla Gasperi

*“First Asymmetric Organocatalyzed Domino Friedel-Crafts/Lactonization Reaction in the enantioselective synthesis of the GABAB Receptor Modulator (S)-BHFF”*

*Tetrahedron Letters*, **2016**, 750.

▪ 3. **Fabrizio Vetica**, Renata Marcia de Figueiredo, Monica Orsini, Daniela Tofani, and Tecla Gasperi

*“Recent Advances in Organocatalytic Cascade Reactions toward the Formation of Quaternary Stereocenters”*

*Synthesis*, **2015**, *47*, 2139.

▪ 2. Tecla Gasperi, Monica Orsini, **Fabrizio Vetica**, Renata Marcia de Figueiredo

*“Organocatalytic Asymmetric Multicomponent Reactions”*

*Multicomponent Reactions: Concepts and Applications for Design and Synthesis* (Eds Raquel P. Herrera, Eugenia Marques Lopez), Wiley-VCH,

Weinheim, **2015**, Chapter 2

▪ 1. **Fabrizio Vetica**, Alessandra Pelosi, Augusto Gambacorta, M. Antonietta Loreto, Martina Miceli and Tecla Gasperi

*“Catalytic Friedel-Crafts/Lactonization Domino Reaction: a Facile Access to 3- Hydroxy-Benzofuran-2-one Scaffold”*

*European Journal of Organic Chemistry*, **2014**, *9*, 1899.

#### Conferences

▪ 23. Co-author, Poster presented by Antonio Di Sabato, “Diastereoselective Norrish-Yang photocyclization of 2-(hydroxyimino)aldehydes”, Chemical Science Symposium 2022, London, November 2022;

▪ 22. Co-author, Poster presented by Martina Bortolami, “Electrochemical Synthesis of Carbon Dots and Their Applications”, Giornate dell'Elettrochimica Italiana (GEI) 2022, Orvieto, September 2022;

▪ 21. Co-author, Poster presented by Cinzia Michenzi, “Electrochemical Synthesis of Carbon dots from Industrial Orange Peel Waste for Catalytic and Photochemical Applications”, Giornate dell'Elettrochimica Italiana (GEI) 2022, Orvieto, September 2022;

▪ 20. **Invited Speaker. Oral Communication.** YoungInnovation, Rome, September 2022.

“Electrochemical synthesis of amino acid-derived Chiral Carbon Dots as recyclable heterogeneous nano-organocatalysts”

▪ 19. **Oral Communication** (accepted abstract). XL Convegno Nazionale della Divisione di Chimica Organica – Italian Chemical Society - CDCO Palermo, September 2022.

“Sustainable approaches for asymmetric synthesis – from domino reactions to Chiral Carbon Dots as nano-organocatalysts”

▪ 18. Co-author, Oral communication presented by Martina Bortolami, “Tetrafluoroborate-based ionic liquids for BF<sub>3</sub> electrogeneration and application in organic reactions”, First Symposium for YouNg Chemists (SYNC2022), Roma, June 2022;

▪ 17. Co-author, Poster presented by Vyali Georgian Moldoveanu, “ Multicomponent domino imine formation/decarboxylation/1,3 dipolar cycloaddition for the synthesis of spiro-pyrrolizine oxindoles”, First Symposium for YouNg Chemists (SYNC2022), Roma, June 2022;

▪ 16. Co-author, Poster presented by Francesco Vicentini, “ Sequential asymmetric organocatalysis towards the synthesis of spiro-decalin oxindole derivatives”, First Symposium for YouNg Chemists (SYNC2022), Roma, June 2022;

▪ 15. Co-author, Oral communication presented by Elisa Sturabotti, “Study on the racemization of N-Acetyl-L-phenylalanine using a uronium salt as coupling agent”, First Symposium for YouNg Chemists (SYNC2022), Sapienza Università di Roma, June 2022;

▪ 14. Co-author, Oral communication presented by Antonio Di Sabato, “Diastereoselective Norrish-Yang photocyclization of 2-(hydroxyimino)aldehydes”, First Symposium for YouNg Chemists (SYNC2022), Roma, June 2022;

▪ 13. Co-author, Poster presented by Lorenzo Celio, “Enantio and diastereoselective total synthesis of (-)-parthenolide”, First Symposium for YouNg Chemists (SYNC2022), Roma, June 2022;

▪ 12. Co-author, Poster presented by Lorenzo Michelini, “Study and optimization of the



enantioselective reaction of a chiral building blocks the synthesis of natural compounds”, First Symposium for YouNg Chemists (SYNC2022), Roma, June 2022;

- 11. Co-author, Poster presented by Cinzia Michenzi, “Conversion of industrial orange peel waste by an integrated Hydrothermal and Electrochemical sustainable approach to NanoCarbon Materials for Catalysis Applications”, First Symposium for YouNg Chemists (SYNC2022), Sapienza Università di Roma, June 2022;

- 10. **Member of the Organizing Committee and Chair of session.** First Symposium for YouNg Chemists (SYNC2022), Department of Chemistry, Sapienza University of Rome, June 2022;

- 9. Co-author, Oral communication presented by Martina Bortolami, “Anodic generation of BF<sub>3</sub> from imidazolium ionic liquids: a safe and effective alternative to commercial etherate form”, IX Workshop Nazionale AICInG - Chemistry for sustainable materials, Ancona, June 2022;

- 8. **Speaker, Christmas Seminars,** Department of Chemistry, Sapienza University of Rome, December 2021

- 7. Co-author. Oral Communication. Speaker (Dr. M. Bortolami). XXVII Congresso Nazionale Società Chimica Italiana 2021, Virtual event, September 2021.

“BMIm-BF<sub>4</sub>: a versatile ionic liquid for BF<sub>3</sub> generation and reactions”

- 6. **Invited Speaker. Oral Communication.** Global Virtual Summit on Catalysis and Chemical Engineering 2021, Virtual event, July 2021.

“Stereoselective synthesis of heterocyclic compounds via asymmetric organocatalysis and domino/one-pot reactions”

- 5. **Oral Communication.** XXIX European Colloquium on Heterocyclic Chemistry (EHC2021), Virtual event, April 2021.

“Asymmetric organocatalysis and cascade reactions in the stereoselective synthesis of heterocyclic scaffolds”

- 4. **Oral Communication.** Visual Symposium for Young Organic Chemists of the Division of Organic Chemistry of the Italian Chemical Society (SCI-ViSYOChem 2020), Italy, November 2020.

" Asymmetric organocatalysis in the synthesis of heterocyclic scaffolds "

- 3. European Symposium on Organic Chemistry (ESOC), K.In (Germany), July 2017. Poster.

“Organocatalytic stereoselective one-pot direct Mannich reaction: access to new 4-amino-isochromanone derivatives

- 2. **Member of the Organizing Committee** 9th New Year’s Symposium, RWTH Aachen University, January 2017.

- 1. **Oral communication.** DOMINOCAT 1 Symposium, Aachen (Germany), September 2015.

“Asymmetric organocatalyzed domino Friedel-Crafts/lactonization: a direct synthesis of 3-OH-benzofuranone derivatives with a quaternary stereocenter”

#### Principal Investigator of research projects

- **2022** University competition for scientific research projects 2022, Sapienza Università di Roma, project number RM1221814C52ED98 – research grant 36890.02€

- **2022** University competition for scientific research projects 2021, Sapienza Università di Roma, project number RP12117A5C0CA0CC – research grant 4000€

#### Participation in research projects

- **2022** University competition for instrumentations Medie e Grandi Attrezzature year 2021, Sapienza Università di Roma, project number GA12117A8AF3E1E0

- **2016-2018** "DOMINOCAT" ERC Advanced Grant 320493

- **2014** MIUR project LS-OSA, University of Roma Tre

#### “Third mission” activities

- **2022.** Christmas Seminars, Sapienza Università di Roma, December 2022. Didactic laboratory experiments for high school students;

- **2021.** Speaker, Christmas Seminars, Department of Chemistry, Sapienza University of Rome, December 2021. Events organized for high school students.

#### Editorial activities

- **2022- present** Member of the Editorial Board of Frontiers in Chemistry - Green and Sustainable Chemistry as Review Editor;

- **2020- present** Member of the Editorial Board of the journal Symmetry (MDPI) as Topic Editor;

- **2021** Guest Editor for the Special Issue “New Frontiers in Asymmetric Organocatalysis” for the journal Symmetry (MDPI);

- **2013-2017** Assistant Editor of the scientific journal "Asymmetric Catalysis";

- **2019** Peer-reviewer for the following scientific journals:

Synthesis, Thieme; Synlett, Thieme; SynOpen, Thieme; New Journal of Chemistry, RSC; Organic & Biomolecular Chemistry, RSC; Molecules, MDPI; Chemistry, MDPI; Green Chemistry, RSC.

## Honours and Awards

- **2022** Prize in recognition for the research activity funded by Regione Lazio, European program FSE+ 2021-2027, Det. N. G12467 del 20/09/2022;
- **2022** Scholarship from the Organic Chemistry Division of the Italian Chemical Society for the participation to the XL Convegno Nazionale della Divisione di Chimica Organica - CDCO Palermo 2022, Italy;
- **2019** Winner of a Postdoctoral Fellowship at the Institute of Organic Synthesis and Photoreactivity (ISOF) - CNR, Bologna (Italy);
- **2015** Scholarship as researcher at Università degli studi Roma Tre. Organocatalysis applied to the synthesis of pyrrole-benzodiazepines.
- **2015** "Worthy students scholarship" for the Master Degree studies. Istituto Nazionale Previdenza Sociale.
- **2014** Scholarship as researcher at Università degli studi Roma Tre. Planning and preparation of chemical didactic experiments to introduce in MIUR LS-OSA platform.
- **2013** "Homo Sapiens Sapiens - Worthy students scholarship" for the Bachelor Degree studies. Istituto Nazionale Previdenza Sociale.

## Memberships

- 2021- present** Royal Society of Chemistry – Member RSC (MRSC), Student Member 2013-2018
- 2020- present** Italian Chemical Society (SCI) - Division Organic Chemistry,
- 2013-2018** American Chemical Society

## Courses

- "ACS Reviewer Lab", January 2020, American Chemical Society
- "Specific safety training for high risk companies", February 2019, ATENA spa
- "General safety training", January 2019, ATENA spa
- "Explorative statistical data analysis with JMP", 2018, BASF SE
- "Leading yourself and others - leadership development", 2018, BASF SE