PERSONAL INFORMATION

Luana Bagnoli
Dept. Pharmaceutical Sciences, University of Perugia-Via del Liceo, 1-06126-Italy
+39 075 585 5109
luana.bagnoli@unipg.it

WORK EXPERIENCE

01/04/2025-today
Associate Professor
GSD: 03/CHEM-05-*Organic Chemistry*-SSD CHEM-05/A-Organic Chemistry-
Department of Pharmaceutical Sciences, University of Perugia-
via del liceo ,1 06123 Perugia (Italy)
https://www.unipg.it/personale/luana.bagnoli

01/01/2004 – 31/03/2025
Researcher
GSD: 03/CHEM-05-*Chimica Organica* (before SC 03/C1); SSD: CHEM-05/A-*Chimica Organica* (già SSD CHIM/06)
Department of Pharmaceutical Sciences, University of Perugia
via del liceo ,1 06123 Perugia (Italy)

2001 - 2003
Graduate technician D1 (VIII Level)
Organic Chemistry Institute- Faculty of Pharmacy, -University of Perugia
via del liceo ,1 06123 Perugia (Italy))

1994 - 2001
Graduate technician VII Level
Organic Chemistry Institute- Faculty of Pharmacy, -University of Perugia
via del liceo ,1 06123 Perugia (Italy)

EDUCATION AND TRAINING

06/09/2018
National Scientific Habilitation as Associate Professor
GSD: 03/CHEM-05-Organic Chemistry (before SC 03/C1); SSD: CHEM-05/A-Organic Chemistry (before SSD CHIM/06)
ASN 2016-2018

November 1991- October 1994
Ph.D degree in Chemical Sciences
with a Doctoral Thesis titled: "Chemistry of Selenorganic compounds. New approaches to the synthesis of heterocyclic compounds." Supervisor Prof. M. Tiecco, University of Perugia
Research interest: New synthetic methodologies promoted by selenium for the synthesis of functionalized derivatives and heterocycles compounds. Catalytic conversion of β,γ-unsaturated esters, amides and nitriles into γ-alkoxy or γ-hydroxy α,β-unsaturred derivatives. Selenium catalyzed conversion of β,γ-unsaturated acids into butenolides. Cyclofunctionalizations of alkenyl oximes.

April 1992
Habilitation as Pharmacist
(235/250) University of Perugia

12/07/1991
Master degree (summa cum lode) in Pharmaceutical Chemistry and Technology
Supervisors: Prof. Lorenzo Testaferri and Prof. Marco Tingoli, University of Perugia

Teaching Activities

aa 2023/ 2024
Supplementary teaching activity for **"Organic chemistry I"** and "**Physical Methods in Organic Chemistry**" in Master degree in Pharmaceutical Chemistry and Technology, University of Perugia

aa 2022/ 2023
Supplementary teaching activity for **"Organic chemistry I"** in Master degree in Pharmaceutical Chemistry and Technology and for **"Organic Chemistry module I"** in Master degree in Pharmacy, University of Perugia

from aa 2021/ 2022 – to aa 2020/2021
"Organic Chemistry of Natural Compounds" (4 CFU)
Master degree in Pharmacy, University of Perugia
Supplementary teaching activity for **"Organic chemistry I"** and **Physical Methods in Organic**

Chemistry" in Master degree in Pharmaceutical Chemistry and Technology (CTF) and for **"Organic Chemistry module I"** in Master degree in Pharmacy, University of Perugia
Organic Chemistry" UFC3 teaching training course "Expert of production cycle in the chemical and pharmaceutical sector". Notice SKILLS Intervention 1. Code SIRU FSE1420-20-1-81-130-DBD924A4. *Investiamo nel tuo futuro*, www.regione.umbria.it/fse,

from aa 2019/ 2020 – to aa 2018/2019	Supplementary teaching activity for **"Organic chemistry I"**, **Physical Methods in Organic Chemistry**" in Master degree in Pharmaceutical Chemistry and Technology (CTF) and for **"Organic Chemistry module I"** in Master degree in Pharmacy, University of Perugia
aa 2017/ 2018	Supplementary teaching activity for **"Organic chemistry I"**, **Physical Methods in Organic Chemistry**" in Master degree in Pharmaceutical Chemistry and Technology (CTF) and for **"Organic Chemistry of Natural Compounds"** in Master degree in Pharmacy, University of Perugia School-work alternation" **"Laboratory for the synthesis and characterization of heterocyclic compounds**", University di Perugia.
aa 2016/ 2017	Supplementary teaching activity for **"Organic chemistry I"**, **Physical Methods in Organic Chemistry**" in Master degree in Pharmaceutical Chemistry and Technology and for **"Organic Chemistry of Natural Compounds"** in Master degree in Pharmacy, University of Perugia
from aa 2015/ 2016 – to aa 2011/2012	**"Analysis of drugs I**" (6 CFU) CdLM in Pharmacy, University of Perugia. Supplementary teaching activity for **Organic Chemistry I** in Master degree in Pharmacy, University of Perugia from aa 2015/2016 to aa 2013/2014
aa 2010/ 2011	**"Heterocyclic Chemistry**" (5 CFU) CdLM in Pharmaceutical Chemistry and Technology (CTF), University di Perugia.
from aa 2009/ 2010 – to aa 2003/2004	"**Spectroscopic Method of Analysis**"(10 CFU) CdL in Quality Control– CQSIFA, University di Perugia. Supplementary teaching activity for "**Physical Methods in Organic Chemistry" (CTF)** for aa 2009/2010, aa 2008/2009, aa 2007/2008.
from 2004 – today	**Member of numerous examination commissions** of Organic Chemistry I, Organic chemistry II, Physical Method for Organic Synthesis in Master degree in Pharmaceutical Chemistry and Technology; Organic Chemistry and Organic Chemistry of Natural Compounds in Master degree in Pharmacy Biorganic Chemistry in Master degree in Biotechnology, University of Perugia. **Member of numerous degree sessions** for Master degree in Pharmacy, in Pharmaceutical Chemistry and Technology (CTF) and in Bachelor degree in Quality Control – CQSIFA, University of Perugia. **Advisor/co-advisor for experimental diploma thesis work** (more than 60)

Accademic activities

Member of the Ph.D Teaching Board
in "Pharmaceutical Science", University of Perugia from 2014 –today
Supervisor of three doctoral thesis.

Member of the "Commissione Paritetica della Didattica"
of the Department of Pharmaceutical Science, University of Perugia
from aa 2016-2019 to 2019-2022

Sistri delegate for the Analysis Drug I laboratory in the Master degree in Pharmaceutical Chemistry and Technology (CTF) in 2012

Member of the "Comitato–Tecnico-Scientifico del Centro Servizi Bibliotecari di Ateneo" for the department of Pharmaceutical of Science (from March 2025 –today)

Bibliometric Indicators

Scopus (06/10/2024)
H index: 34
Numero delle pubblicazioni indicizzate: 101
Numero totali delle citazioni: 3042
Numero medio delle citazioni: 30,12
Total IF: 269.9

WOS (06/10/2024)
H index: 32
Numero delle pubblicazioni indicizzate: 101
Numero totali delle citazioni: 2836
Numero medio delle citazioni: 28,08

https://orcid.org/0000-0002-0622-4561
scopus Author ID:7004626411

Google Scholar (al 06/10/2024)
H index: 36
Numero totali delle citazioni: 3693

Scientific activity

The scientific interests are mainly focused on the development of new synthetic methodologies promoted by organoselenium reagents and their applications to the synthesis of molecules of biological significance. Her research activities concern chemo and stereoselective methodologies, domino reaction and eco- sustainable syntheses. The main scientific interest has been initially aimed at the realization of asymmetric syntheses, with a high degree of diastereo- and enantio-selectivity suitable for the preparation of polyfunctional products and for the synthesis of heterocyclic compounds. In the last years, she has used vinyl selenones such as the Michael acceptor and commercial building blocks to construct biologically active substrates in addition–cyclization and addition-elimination cascade processes. Such reactions, by not isolating any intermediate compounds, constitute a useful, ecofriendly process that allows the obtaining of carbocyclic and heterocyclic derivatives even complex in one pot. Recently development of organoselenium-based strategies for functionalization of azoles and their biological evaluation have been currently conducted. Novel selenyl indoles bearing benzenesulfonammide moiety have successfully synthesized and tested as carbonic anhydrase inhibitors.

List of pubblications

1. M. Palomba; A. Angeli; R. Galdini; A. J. Hughineata; J. Perin; E. J. Lenardão; F. Marini; C. Santi*; C. T. Supuran; **L. Bagnoli*. "**Iodine/Oxone® oxidative system for the synthesis of selenylindoles bearing a benzenesulfonamide moiety as carbonic anhydrase I, II, IX, and XII inhibitors. *Org. Biom. Chem.* **2024**, *22,* 6532–6542.
2. **L. Bagnoli**; O. Rosati; F. Marini; C. Santi, "Selenosulfones, A Meetup of Chalcogens: A Journey into their Recent Chemistry". *Eur. J. Org. Chem.* **2024**, *27*, e202400169.
3. I. F. Coelho Dias; G. Allegrini; E. Wielgus; J. Drabowicz; E. J. Lenardão; **L. Bagnoli**; C. Santi; F. Marini. "Cyclopropanation of Aryl and Styryl Acetonitriles With Selenium-Based Dielectrophiles". *Eur. J. Org. Chem.* **2024**, *27*, e202400187.
4. D. Zeppilli; A. Madabeni; L. Sancineto; **L. Bagnoli**; C. Santi; L. Orian. "Role of Group 12 Metals in the Reduction of H_2O_2 by Santi's Reagent: A Computational Mechanistic Investigation". *Inorg. Chem.* **2023**, *62*, *42*, 17288-17298.
5. M. Palomba; I. F. C. Dias; M. Cocchioni; F. Marini; C. Santi; **L. Bagnoli*,** "Vinylation of *N*- Heteroarenes through Addition/ Elimination Reaction of Vinyl Selenones". *Molecules* **2023**, *28*, 6026.
6. D. B. Tiz; **L. Bagnoli**; O. Rosati; F. Marini; L. Sancineto; C. Santi. "Top Selling (2026) Small Molecule Orphan Drugs: A Journey into Their Chemistry" *Int. J. Mol. Sci.* **2023**, *24*, 930.
   Top Downloaded Papers of IJMS
7. D. B. Tiz; **L. Bagnoli**; O. Rosati; F. Marini; C. Santi; L. Sancineto. "FDA-Approved Small Molecules in 2022: Clinical Uses and Their Synthesis". *Pharmaceutics*, **2022**, *14*, 2538.
8. P. A. Grzes'; B. Monti; N. Wawrusiewicz-Kurylonek; **L. Bagnoli**; L. Sancineto; I. Jastrzebska; C. Santi. "Simple Zn-Mediated Seleno- and Thio-Functionalization of Steroids at C-1 Position". *Int. J. Mol. Sci.* **2022**, *23*, 3022.
9. D. B. Tiz; **L. Bagnoli**; O. Rosati; F. Marini; L. Sancineto; C. Santi, "New Halogen-Containing Drugs Approved by FDA in 2021: An Overview on Their Syntheses and Pharmaceutical Use". *Molecules* **2022**, *27(5)*, 1643.
   2022 Best paper award
10. F. Mangiavacchi; P. Botwina; E. Menichetti; **L. Bagnoli**; O. Rosati; F. Marini; S. F. Fonseca; L. Abenante; D. Alves; A. Dabrowska; A. Kula-Pacurar; D. Ortega-Alarcon; A. Jimenez-Alesanco; L. Ceballos-Laita; S Vega; B. Rizzuti; O. Abian; E. J. Lenardão; A. Velazquez-Campoy; K. Pyrc; L. Sancineto; C. Santi. "Seleno-Functionalization of Quercetin Improves the Non-Covalent Inhibition of M^{pro} and Its Antiviral Activity in Cells against SARS-CoV-2". *International Journal of Molecular Sciences*, **2021**, *22*(13), 7048.
11. M. Palomba; E. De Monte; A. Mambrini; **L. Bagnoli**; C. Santi; F. Marini. "A three component [3+2]-cycloaddition/elimination cascade for the synthesis of spirooxindole-pyrrolizines". *Org. Biomol.Chem.*, **2021**, *19*, 667–676.
12. F. Mangiavacchi; I. F. C. Dias; I. Di Lorenzo; P. Grzes; M. Palomba; O. Rosati; **L. Bagnoli**; F. Marini; C. Santi; E. J. Lenardao; L. Sancineto. "Sweet Selenium: Synthesis and Properties of Selenium-Containing Sugars and Derivatives". *Pharmaceuticals* **2020**, *13*, 211.
13. P. S. Hellwig; T. J. Peglow; F. Penteado; **L. Bagnoli**; G. Perin; E. J. Lenardão. "Recent Advances in the Synthesis of Selenophenes and Their Derivatives". *Molecules* **2020**, 25, 5907.
14. D. R. Araujo; Y. R. Lima; A. M. Barcellos; M. S. Silva; R. G. Jacob; E. J. Lenardão; **L. Bagnoli**; C. Santi; G. Perin. "Ultrasound-Promoted Radical Synthesis of 5-Methylselanyl-4,5-dihydroisoxazoles". *Eur. J. Org. Chem.* **2020**, 586-592.
15. **Bagnoli, L.***, "Synthesis of Biologically Relevant Heterocyclic Compounds through the Chemistry of Selenium". TARGETS IN HETEROCYCLIC SYSTEM, VOLUME 23, **2019.**
    DOI:http://dx.medra.org/10.17374/targets.2020.23.220
16. M. Palomba; S. Pompei; L. Roscini; **L. Bagnoli***. **"**Synthesis and biological evaluation of new indole and pyrrole carboxamides based on amino acids". *Arkivoc* **2019**, part ii, 163-175.
17. F. Marini; M. Palomba; **L. Bagnoli**; C. Santi. "Synthesis of Pyrrolidinols by Radical Additions to Carbonyls

Groups" *Proceedings* **2019**, *41*, 20.

18. M. Palomba; E. Scarcella; L. Sancineto; **L. Bagnoli**; C. Santi; F Marini. "Synthesis of Spirooxindole Oxetanes Through a Domino Reaction of 3-Hydroxyoxindoles and Phenyl Vinyl Selenone". *Eur. J. Org. Chem.,* **2019**, 31-32, Special Issue, 5396-5401.
19. M. Palomba, L. Sancineto, F. Marini, C. Santi, **L. Bagnoli***. "A domino approach to pyrazino-indoles and pyrroles using vinyl selenones". *Tetrahedron,* **2018**, 74, 7156-7163.
20. M. Palomba; F. Trappetti; **L. Bagnoli**; C. Santi; F. Marini. "Oxone mediated oxidation of vinyl selenides in water", *Eur. J. Org. Chem.,* **2018**, 3914-3919.
21. F. Mangiavacchi; L. Mollari; **L. Bagnoli**, F. Marini; C. Santi. "Condensation of 2-aminomethylaniline with aldehydes and ketones for the fast one-pot synthesis of a library of 1,2,3,4-tetrahydroquinazolines under flow conditions". *Chem. Heterocycl. Compd.*, **2018**, *54*, 478-481.
22. D. Dolciami; M. Gargaro; B. Cerra; G. Scalisi; **L. Bagnoli**; G. Servillo; M. A. Della Fazia; P. Puccetti; F. J. Quintana; F. Fallarino; A. Macchiarulo. "Binding Mode and Structure-Activity Relationships of ITE as Aryl Hydrocarbon Receptor (AhR) agonist". *ChemMedChem* **2018**,13, 270-279.
23. C. Santi, **L. Bagnoli**. Special issue "Celebrating two centuries of research in selenium chemistry: state of art and new prospective". *Molecules* **2017**, Santi, C.: Guest editor; Bagnoli, L.: Assistant Guest Editor
24. L. Sancineto; F. Mangiavacchi; C. Tidei; L. Bagnoli; F. Marini; A. Gioiello; J. Scianowski; C. Santi, "Selenium Catalyzed Oxacyclization of Alkenoic Acids and Alkenols", *Asian J. Org. Chem*. **2017**, *6*, 988 –992.
25. G. Mazzeo; G. Longhi; S. Abbate; M. Palomba; **L. Bagnoli**; F. Marini; C. Santi; J. L. Han; V. A. Soloshonok; E. Di Crescenzo; R. Ruzziconi. "Solvent-free, uncatalyzed asymmetric "ene"reactions of *N*-tert-butylsulfinyl-3,3,3-trifluoroacetaldimines: a general approach to enantiomerically pure α-(trifluoromethyl) tryptamines".*Org. Biomol. Chem*. **2017**, *15*, 3930–3937.
26. E. J. Lenardão, E. L. Borges, G. Stach, L. K. Soares, D. Alves, R. F. Schumacher, **L. Bagnoli**, F. Marini, G. Perin. "Glycerol as Precursor of Organoselanyl and Organotellanyl Alkynes". *Molecules* **2017**, 22(3), 391.
27. B. Monti; C. Santi; **L. Bagnoli**; F. Marini; L. Sancineto, "Zinc Chalcogenolates as Green Reagents". *Curr. Green Chem*., **2017**, *3*, 68 - 75 (Thematic Issue: Organochalcogens in Green Chemistry).
28. C. Tomassini; F. Di Sarra; B. Monti; L. Sancineto; **L. Bagnoli**; F. Marini; C. Santi. "Kinetic resolution of 2 carbomethoxy-3-alkenols through a stereoselective cyclofunctionalization promoted by an enantiomerically pure electrophilic selenium reagent". *Arkivoc*, **2017**, part ii, 303-312.
29. M. Palomba; E. Vinti; F. Marini; C. Santi; **L. Bagnoli***. " Synthesis of oxazino[4,3-*a*] indoles by domino addition-cyclization reactions of (1*H*-indol-2-yl)methanoll and vinyl selenones in the presence of 18-crown-6". *Tetrahedron,* **2016**, *72*, 7059-7064.
30. C. Santi; R. G. Jacob; B. Monti; **L. Bagnoli**; L. Sancineto; E. J. Lenardao." Water and Aqueous Mixtures as Convenient Alternative Media for Organoselenium Chemistry". *Molecules* **2016**, *21*, 1482, 17 pages
31. G. Bellino; M. Scisciani; J. P. Vargas; L. Sancineto; **L. Bagnoli**; F. Marini; D. S. Ludtke; E. J. Lenardao; C. Santi. "Reaction of Acyl Chlorides with in Situ Formed Zinc Selenolates: Synthesis of Selenoesters versus Ring-Opening Reaction of Tetrahydrofuran", *Journal of chemistry*, **2016**, DOI: 10.1155/2016/284914
32. M. Palomba; L. Rossi; L. Sancineto; E. Tramontano; A. Corona; **L. Bagnoli**; C. Santi; C. Pannecouque; O. Tabarrini; F. Marini. "A new vinyl selenone-based domino approach to spirocyclopropyl oxindoles endowed with anti-HIV RT Activity" *Organic & Biomolecular Chemistry*, **2016**, *14*, 2015-2024.
33. L. Sancineto; C. Tidei; **L. Bagnoli**; F. Marini; V. Lippolis; M. Arca; E. J. Lenardão; C. Santi. "Synthesis of Thiol Esters Using PhSZnBr as Sulfenylating Agent: A DFT-Guided Optimization of Reaction Conditions". *Eur. J. Org. Chem*., **2016**, 2999–3005.
34. L. Sancineto; M. Palomba; **L. Bagnoli**; F. Marini; C. Santi. "Advances in Electrophilic Organochalcogen Reagents", *Curr. Org. Chem*. **2016**, 20, 122-135.
35. M. Palomba; **L. Bagnoli**; F. Marini; C. Santi; L. Sancineto. "Recent Advances in the Chemistry of Vinyl Chalcogenides" *Phosphorus Sulfur Silicon & rel. el*. **2016,** 191, Issue 2, 235-244.
36. L. Sancineto; A. Mariotti; **L. Bagnoli**; F. Marini; J. Desantis; N. Iraci; C. Santi; C. Pannecouque; O. Tabarrini. "Design and Synthesis of DiselenoBis Benzamides (DISeBAs) as nucleocapsid Protein 7 (NCp7) Inhibitors with anti-HIV Activity". *J. Med. Chem.* **2015**, 58, 9601-9614.
37. L. Sancineto; C. Tidei; **L. Bagnoli**; F. Marini; E. J. Lenardão; C. Santi. "Selenium Catalyzed Oxidation of Aldehydes: Green Synthesis of Carboxylic Acids and Esters". *Molecules*, **2015**, 20 (6), 10496-10510.
38. C. Tidei, L. Sancineto, **L. Bagnoli**, B. Battistelli, F. Marini, C. Santi. "A Recyclable Biphasic System for Stereoselective and Easily Handled Hydrochalcogenations". *Eur. J. Org. Chem.,* **2014**, 5968–5975.
39. S. Sternativo; B. Battistelli; **L. Bagnoli**; C. Santi; L. Testaferri; F. Marini. "Synthesis of γ-Lactams via a Domino Michael Addition/Cyclization Reaction of Vinyl Selenone with Substituted Amides". *Tetrahedron Lett.* **2013***, 54*, 6755-6757.
40. S. Propersi; C. Tidei; **L. Bagnoli**; F. Marini; L. Testaferri; C. Santi. "On Water Thiolysis of Epoxides Promoted by PhSZnBr". *Journal of Sulfur Chemistry,* **2013**, 34, 671-676.
41. **L. Bagnoli***; S. Casini; F. Marini; C. Santi; L. Testaferri. "Vinyl selenones: annulation agents for the synthesis of six-membered benzo-1,4-heterocyclic compounds". *Tetrahedron* **2013**, *69*, 481-486.
42. P. Ronchi; C. Scarponi; M. Salvi; S. Fallarini; L. Polito; E. Caneva; **L. Bagnoli***; L. Lay*. "Synthesis of a Structural Analogue of the Repeating Unit from Streptococcus Pneumoniae 19F Capsular Polysaccharide based on the Cross- Methathesis-Selenocyclization Reaction Sequence". *J. Org. Chem.* **2013**, *78*, 5172-5183.
43. C. Santi; R. Di Lorenzo; C. Tidei; **L. Bagnoli**; T. Wirth. "Stereoselective Selenium catalyzed

dihydroxylation and hydroxymethoxylation of alkenes". *Tetrahedron,* **2012***, 68*, 10530- 10535.

44. **L. Bagnoli*;** C. Scarponi; M. G. Rossi; L. Testaferri; M. Tiecco. "Synthesis of Enantiopure 1,4-Dioxanes, Morpholines, and Piperazines from the Reaction of Chiral 1,2-Diols, Amino Alcohols, and Diamines with Vinyl Selenones". *Chem. Eur. J.,* **2011,** *17,* 993-999.
45. **L. Bagnoli**; S. Cacchi; G. Fabrizi; A. Goggiomani; C. Scarponi; M. Tiecco. "Diastereoselective Synthesis of Hexahydro-3*H*- pyrrolyzin-3-ones through Pd-Catalyzed Carboamination". *J. Org. Chem.* **2010**, *75*, 2134-2137
46. **L. Bagnoli***; C. Scarponi; L. Testaferri; M. Tiecco. "Preparation of both enantiomers of cyclopropane derivatives from the reaction of vinyl selenones with di -(–)-bornyl malonate". *Tetrahedron: Asymmetry* **2009**, *20*, 1506-1514.
47. M. Tiecco; L. Testaferri; F. Marini; S. Sternativo; F. Del Verme; C. Santi; **L. Bagnoli**; A. Temperini. "Synthesis of Enantiomerically Enriched β-Hydroxy selenides by catalytic asymmetric ring opening of *meso* -epoxides with (phenylseleno)silanes". *Tetrahedron* **2008***, 64*, 3337-3342.
Citato su Synfacts "Highlights in Current Synthetic Organic Chemistry" 2008, 7, 728.
48. M. Tiecco*; L. Testaferri; **L. Bagnoli***; C. Scarponi. "Selenium -promoted synthesis of enanantiopure octahydroindolizines, hexahydro-1*H*-pyrrolizines and hexahydro-3*H*-pyrrolizin -3-ones". *Tetrahedron: Asymmetry* **2008**, *19*, 2411-2416.
49. M. Tiecco*; L. Testaferri; **L. Bagnoli***; C. Scarponi; A. Temperini; F. Marini; C. Santi. "Selenium Promoted Synthesis of Enantiopure Pyrrolidines Starting from Chiral Aminoalcohols". *Tetrahedron Asymmetry*, **2007**, *18*, 2758-2767.
50. M. Tiecco; L. Testaferri; C. Santi; C. Tomassini; S. Santoro; F. Marini; **L. Bagnoli**; A. Temperini. "Synthesis of Enantiomerically Pure β-Azidoselenides Starting from Natural Terpenes". *Tetrahedron*, **2007,** *63*, 12373-12378.
51. M. Tiecco; L. Testaferri; A. Temperini; R. Terlizzi; **L. Bagnoli**; F. Marini; C. Santi. "Stereocontrolled Synthesis of Substituted N-Arenesulfonyl Azetidines from γ-(Phenylseleno)alkyl Arylsulfonamides". *Org. Biomol. Chem.,* **2007,** *5*, 3510-3519.
52. M. Tiecco, L. Testaferri, A. Temperini, R. Terlizzi, **L. Bagnoli**, F. Marini, C. Santi. "A Simple Synthesis of (*R*)-3-Aminooctanoic acid (D-BAO) from (*S*)-1-Octyn-3-ol". *Tetrahedron Lett.*, **2007**, *48*, 4343-4345.
53. M. Tiecco, L. Testaferri, F. Marini, S. Sternativo, C. Santi, **L. Bagnoli**, A. Temperini. "Intramolecular Addition of Carbon Radicals to Aldehydes: Synthesis of Enantiopure Tetrahydrofuran-3-ols". *Tetrahedron*, **2007** *63*, 5482-5489.
54. M. Tiecco, L. Testaferri, **L. Bagnoli**, C. Scarponi, A. Temperini, F. Marini, C. Santi. "Organoselenium Mediated Asymmetric Cyclizations. Synthesis of Enantiomerically Pure 2-Substituted 1,6- Dioxaspiro[4,4]nonanes". *Tetrahedron: Asymmetry,* **2006***,* 17, 2768-2774.
55. M. Tiecco, L. Testaferri, C. Santi, C. Tomassini, S. Santoro, F. Marini, **L. Bagnoli**, A. Temperini, Intramolecular Non-Bonding Interactions Between Selenium and Sulfur. Spectroscopic Evidence and Importance in Asymmetric Synthesis, *Eur. J. Org. Chem.,* **2006**, 4867-4873.
56. M. Tiecco, L. Testaferri, A. Temperini, R. Terlizzi, **L. Bagnoli**, F. Marini, C. Santi. "Synthesis of γ- and δ-Lactones from Alkynols". *Synlett,* **2006**, 587-590.
57. M. Tiecco, L. Testaferri, **L. Bagnoli**, F. Marini, C. Santi, A. Temperini, C. Scarponi, S. Sternativo, R. Terlizzi, C. Tomassini. "Enantioselective Synthesis of Heterocyclic Compounds Mediated by Organoselenium Reagents". *Arkivoc,* **2006**, 186-206.
58. C. Santi**,** M. Tiecco, L. Testaferri, C. Tomassini, F. Marini, **L. Bagnoli**, A. Temperini. "Kinetic Resolution of Allylic Alcohols Promoted by Electrophilic Selenium Reagents". *Phosphorus, Sulphur and Silicon,* **2005***, 180*, 1071-1075.
59. M. Tiecco, L. Testaferri, F. Marini, **L. Bagnoli**, C. Santi, A. Temperini, S. Sternativo, C. Tomassini. "Asymmetric Syntheses Promoted by Organoselenium Reagents". *Phosphorus, Sulphur and Silicon***, 2005**, *180*, 729-740.
60. M. Tiecco, L. Testaferri, **L. Bagnoli**, C. Scarponi, V. Purgatorio, A. Temperini, F. Marini, C. Santi. "Synthesis of enantiomerically pure perhydro furo[2,3-*b*]furans". *Tetrahedron Asymmetry,* **2005**, *16*, 2429-2435.
61. M. Tiecco, L. Testaferri, A. Temperini, R. Terlizzi, **L. Bagnoli**, F. Marini, C. Santi. "Synthesis of selenoxides by oxidation of selenides with superoxide radical anions and 2-nitrobenzensulfonyl chloride". *Tetrahedron Lett.,* **2005**, *46*, 5165-5168.
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Chapters

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2. F. Marini, **L. Bagnoli**, M. Palomba. "Synthesis of organochalcogens: use of nonconventional solvents/reaction media"**.** *In Organochalcogen Compounds. Synthesis, Catalysis, and New Protocols with Greener Perspectives* 1st First Edition (Chapter 5) **2022 Elsevier** (Paperback ISBN: 9780128194492; eBook ISBN: 9780128194508).
3. F, Marini, **L. Bagnoli**, S. Sternativo. "Enantioselective Catalysis for the Preparation of Organoselenium Compounds and Applications" *In Organoselenium Chemistry: Between Synthesis and Biochemistry* (Chapter 7) **2014 Bentham Science Publishers** (ISBN 978-1-60805-839-6).

Oral communications

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2. **L. Bagnoli**, M. Palomba, I. F. C. Dias, F. Marini, C. Santi, "Development of Organoselenium-Based Strategies for Functionalization of Azoles and their Biologically Evaluation" CINMPIS DAYS Bari, 7-9 February **2024**.
3. **L. Bagnoli**, M. Palomba, L. Sancineto, F. Marini, C. Santi, "Domino Process for the synthesis of heterocycle-fused indoles and pyrroles from vinyl selenones", 6th Workshop of SeS Redox and Catalysis, Wroclaw, Poland 22-23 September **2017**. **Special presentation su invito.**
4. M. Palomba, F. Marini, C. Santi, **L. Bagnoli**, "Effective route to fused- indoles and pyrroles via a domino Michael addition/cyclization from vinyl selenones", XXXVI Convegno Nazionale della Divisione di Chimica Organica, Società Chimica Italiana, Bologna, 13-17 September **2015**.
5. **L. Bagnoli**, M. Tiecco, L. Testaferri, A. Temperini, F. Marini, C. Santi, "Selenociclizzazione Asimmetrica di γ-Alchenilossime e –δ-Fenil-γ-Alchenilossime Promosse da un Nuovo Diseleniuro Chirale Contenente Solfo", Meeting dei ricercatori afferenti al progetto di ricerca di interesse nazionale cofinanziato dal M.U.R.S.T.: Stereoselezione in Sintesi Organica: Metodologie ed Applicazioni, Camerino, 3-5 Dicembre **2000.**
6. **L. Bagnoli**, M. Tiecco, L. Testaferri, A. Temperini, F. Marini, C. Santi, "Tienilselenilazioni elettrofila di derivati tiofenici. Sintesi di oligoselenotiofeni", XVIII Convegno Interregionale Toscano Umbro Marchigiano Abruzzese della Società Chimica Italiana Sezione Umbra TUMA'99, Perugia, 3-5 Giugno **1999.**
7. **L. Bagnoli**, M. Tiecco, L, Testaferri, F. Marini, C. Santi, A. Temperini, "Sintesi di alcooli allilici chirali

non racemici mediante riarrangiamento [2.3] sigmatropico di canforil allil selenossidi", Meeting dei ricercatori afferente al progetto di ricerca di interesse nazionale cofinanziato dal M.U.R.S.T: Stereoselezione in Sintesi Organica: Metodologie ed Applicazioni. Camerino, 4-5 Febbraio **1999**.

8. **L. Bagnoli**, M. Tiecco, L. Testaferri, M. Tingoli, "Sintesi di 1,2-Ossazine Mediante Ciclizzazioni di Alchenil Nitroni Promosse dal Selenio", Convegno Nazionale su Orientamenti e Metodologie in Chimica Farmaceutica, Organica e Bioorganica. (SCI). Numana (AN) 2-6 Giugno **1995**.
9. **L. Bagnoli**, M. Tiecco, L. Testaferri, M. Tingoli, "Sintesi di 1,2-Ossazine mediante Ciclizzazione di Alchenil Nitroni Promosse dal Selenio", XIV Convegno Interregionale Riunione Tosco Umbro Marchigiano-Abruzzese della Società Chimica Italiana, TUMA 95, Terni, 11-12 Maggio **1995**.
10. **L. Bagnoli**, M. Tiecco, L. Testaferri, M. Tingoli, "Sintesi di Piridine Mediante Reazioni di Ciclizzazione di Alchenil Ossime Catalizzate da Difenil Diseleniuro", XII Convegno Interregionale Tosco-Umbro-Marchigiano della Società Chimica Italiana, TUM 93, Siena, 4,5-Giugno **1993**
11. **L. Bagnoli**, M. Tiecco, L, Testaferri, M. Tingoli, "Reazioni di selenazione e deselenazione con eliminazione. Conversioni multistep one pot catalizzate da difenildiseleniuro", XI Convegno Interregionale Tosco-Umbro- Marchigiano TUM 92, Perugia, 21-23 Maggio **1992**.

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1. M. Sisti, L. Sancineto, F. Marini, C. Santi, **L. Bagnoli*.** "Synthesis of 3,4-Dihydropyrazino[1,2-*a*]indol-1(2*H*)-ones by cascade. Addition -cyclization reactions from vinyl selenones" The **18th** International Electronic Conferences on Synthethic Organic Chemistry, 1-30 Novembre 2014. Pubblicazione solo su web. **doi: 10.3390/ecsoc-18-a011**. ISBN 978-3-906980-55-3.
2. M. Palomba, F. Marini, C. Santi, **L. Bagnoli***. "Domino processes for the synthesys of N-Vinyl azoles starting from vinyl selenone". The **18th** International Electronic Conferences on Synthethic Organic Chemistry, 1-30 November 2014. Pubblicazione solo su web. **doi: 10.3390/ecsoc-18-a011**. ISBN 978-3-906980-55.
3. K. Berettoni, F. Marini, C. Santi, **L. Bagnoli***. "An efficient cascade reaction for the synthesis of oxazino[4,3-*a*] indoles and pyrano [3,4-*b*] indoles from vinyl selenones" The **17th** International Electronic Conferences on Synthethic Organic Chemistry, ECSOC -17, 1-30 Novembre 2013, ISBN 3-906980-26-x.
4. **L. Bagnoli***, C. Scarponi, L. Lay, P. Ronchi. "Synthesis of enantiopure pseudooligosaccharides using selenium" The **15th** International Electronic Conferences on Synthethic Organic Chemistry, ECSOC-15, 1-30 Novembre 2011, ISBN: 3- 906980-25-1
5. **L. Bagnoli***, C. Scarponi, M. G. Rossi, L. Testaferri, M. Tiecco. "Asymmetric Synthesis of Cyclopropanes and Heterocyclic compounds by vinyl Selenones".1st Electronic Symposium on Selenium Chemistry **eSeS-1**, Published online: 10 December 2010
6. **L. Bagnoli***, C. Scarponi, L. Testaferri, M. Tiecco. "Synthesis of enantiopure substituited 1,4-dioxanes by Michael initiated ring closure reactions". **13th** International Electronic Conference on Synthetic Organic Chemistry, ECSOC-13, 1-30 Novembre 2009.
7. **L. Bagnoli***, M. Tiecco, L. Testaferri, C. Scarponi, A. Temperini, F. Marini, C. Santi "Selenium promoted Enantioselective Synthesis of spiroketals". 9th International Electronic Conference on synthesis Organic chemistry. ECSOC-9, 1-30- November 2005.

Awards and citations

- **Top Downloaded Papers of International Journal of Molecules Sciences** "Top Selling **(2026**) Small Molecule Orphan Drugs: A Journey into Their Chemistry", *Int. J. Mol. Sci.* **2023**, *24*, 930
- **Molecules: 2022 Best Paper Award** "New Halogen-Containing Drugs Approved by FDA in **2021**: An Overview on Their Syntheses and Pharmaceutical Use", *Molecules* **2022**, *27(5)*, 1643
- **Citation in Synfacts "Highlights in Current Synthetic Organic Chemistry" 2008, 7, 728.** "Salen–Chromium Complex Catalyzed Ring Opening of meso-Epoxides"
- **Tetrahedron Asymmetry: Most Cited Paper 2004-2007** "Synthesis of Enantiomerically Pure Substituted Tetrahydrofurans from Epoxides and Phenylselenium Reagents", *Tetrahedron: Asymmetry* **2004**, *15*, 405-412.

Editorial activity

- **Section Board Member of the Molecules** (Organic chemistry section)
  https://www.mdpi.com/journal/molecules/sectioneditors/organic_chemistry

- **Guest editor of Special Issue ""**Organoselenium Compounds: Synthesis, Catalysis and Biological Activities" in Molecules, **2024**
  https://www.mdpi.com/journal/molecules/special_issues/835AZ82P1K

- **Guest editor of *Special Issue*** "Heterocycles: Synthesis, Biological Activity and Synthetic Applications" in Molecules, **2022**
  https://www.mdpi.com/journal/molecules/special_issues/Heterocycle_Biological
- **Assistant Guest Editor of Special Issue** "Celebrating two Centuries of Research in Selenium Chemistry: State of art and New Perspective" in Molecules, **2017**
  https://www.mdpi.com/journal/molecules/special_issues/selenium_chemistry

- **Reviewer for several international scientific journals:**: Tetrahedron, Tetrahedron: Asymmetry, Tetrahedron Letters, European Journal of Organic Chemistry, Synthesis, Current Organic Chemistry, Chemistry Open, Molecules, Chemical Communication, Phosphorus, Sulfur, Silicon and the Related Elements, Letters in Organic Chemistry, numerose riviste Bentham, etc"
- **Reviewer for research projects:** FIRB-Italian Ministry of university and research grants for Italian universities

Research Projects

- **Member** in the project "Innovation, digitalisation and sustainability for the diffused economy in central Italy" –**VITALITY Spoke 10** from **20/09/2023** (identification code n. ECS00000041; CUPJ97G22000170005), Coordinator Luca Gammaitoni
- **Member** in the project **"EVI**: la nuova frontiera per il trattamento dei DNA", Coordinator Prof. Antonio Orlacchio, **2023**
- **Awarded** the **"Finanziamento annuale individuale delle attività base di ricerca**", **2017**
- **Member in the project "Fondo per il sostegno della ricerca di base"** The project proposal "Composti organici ed ibridi inorganici del Selenio nella sintesi ecocompatibile di molecole bioattive", Coordinator Prof. Claudio Santi in 2014, included the partecipation of the Prof. Lenardao (UFPel) as a Visiting Professor (point 12, Department 06/02/2015)
- **Member in numerous projects financed by "Fondazione Cassa di Risparmio di Perugia.** The project proposal**:**
- "Processi ecosostenibili per la produzione e analisi di molecole di interesse farmaceutico" 2012.0114.021.2012. Coordinator Prof. Benedetto Natalini. From 01-01-2012 to 31-12-2013;
  "Nuovi catalizzatori eterogenei per lo sviluppo di processi green in flusso" 2014.0100.021
  Coordinator Prof. Gioiello from 01-01-2014 to 31-12-2015.
- **Member in MIUR national research projects:**
  PRIN **2007** Coordinator Prof. Marcello Tiecco.
  Entity76.500 from 22-09-2008 to 18-10-2010.
  PRIN 2005 Coordinatore Prof. M. Tiecco.
  Entity 95.400; 24 months from 30-01-2006 to 20-02-2008.
  PRIN 2003 Coordinator Prof. Marcello Tiecco.
  Entity 26.000; 24 months from 20-11-2003 to 12-12-2005.
  PRIN 2001 Coordinator Prof. Marcello Tiecco.
  Entity 25.823, 24 months from 12-12-2001 to 15-01-2004

Scientific Organizations

- Member of organizing committee of the **1st Anglo-Italian Chemical Biology Bilateral Meeting (AICBBM-1),** Perugia 15-17 December, **2024**
- Secretary of organizing committee of the **HALCHEM IX** International Meeting on Halogen Chemistry Perugia 23-26 September, **2019**
- Member of organizing committee of the **WSeS-8** International Workshop on Selenium Sulfur Redox and Catalysis, Perugia 30 May-1 June, **2019**
- Member of organizing committee of the **WSeS-4** International Workshop on Selenium Sulfur Redox and Catalysis, Perugia 20-21 April, **2015**
- Member of local organizing committee of the **WSES-3** International Workshop on Selenium Sulfur Redox and Catalysis, Perugia 15-17 September, **2014**
- Member of scientific Committee-of **eSeS-1** Electronic Symposium Selenium Chemistry from 10-12-2010 to 10-02-2011
- **Member of organizing Committee of the ISSOC-4.** 4th Italian-Spanish Symposium on Organic Chemistry from 31-08-2002 to 3-09-2002

Membership

- **Member of the "Società Chimica Italiana-Divisione di Chimica Organica"**

- **Member of the International Selenium network "SeS Redox and Catalysis"** in which numerous works have been carried out in collaborations with various international authors who are experts in selenium chemistry.
- **Member of the "Consorzio Interuniversitario Nazionale per le Metodologie e Processi Innovativi di Sintesi, C.I.N.M.P.I.S.** taking advantage of numerous fellowships.The consortium is locked at the University of Bari under the supervision of the Ministry of Education, University and Research (MIUR).