

## Prof. Claudio Santi - (Curriculum Vitae)

### Education and research Activity

Claudio Santi was born in Fabriano (AN) in 1967. In 1992 he graduated in Pharmaceutical Sciences at the University of Perugia discussing a MD-thesis in Organic Synthesis. He received his PhD in 1996 under the supervision of Prof. Marcello Tiecco and in 1998, supported by a fellow of the Swiss National Foundation, he spent a period as visiting Scientist in the group of Prof. Thomas Wirth at the "Institute fur Organische Chemie" of Basel University. In 2002 he becomes assistant professor and in 2005 aggregate professor at the Faculty of Pharmacy of the University of Perugia. Since October 2013 he is associated professor of Organic Chemistry at the Department of Pharmaceutical Sciences of the same university and in the 11/12/2013 he received the National Scientific Habilitation as Full Professor (ASN 2013) confirmed on 06/09/2018 (ASN 2016)

He has been invited as visiting professor at Jan Dlugosz University of Czestochowa-Poland (2013 and 2021), Universidade Federal de Pelotas - Brazil (2014 and 2023), Universidade Federal de Minas Gerais, Belo Horizonte – Brazil (2020). Furthermore, he received Erasmus fellowships for teaching organic chemistry in Jagiellonian University in Krakow (2007) School of Chemistry Cardiff University (2009), Univesidad Complutense de Madrid (2016).

He is a recognized expert in organoselenium chemistry and pioneered the studies on the use of optically pure diselenides in asymmetric synthesis (investigating the role of selenium heteroatom interactions as relevant conditions for the transfer of the chirality information) as well as the use organoselenium reagents (with emphasis on biomimetic catalysts) in Green Chemistry. In this latter field he developed new synthetic protocols using non-conventional and recyclable reaction media associated to the use of the enabling technologies (e.g. ultrasounds and flow-chemistry). He discovered the first class of bench stable zinc selenates that some authors named as "Santi's Reagents" and that are currently commercialized by Sigma-Aldrich.

He recently directed part of his scientific interested toward the synthesis of biologically active organoselenium compounds demonstrating for some of them antibacterial (antibiofilm) antiviral (HIV and SARS-cov2) antioxidant and hormetic properties. In 2012 he co-founded and still chair the international research Network on Selenium Sulfur Redox and Catalysis. Since 2013 he leads the group of Catalysis Synthesis and Organic Green Chemistry at the department of Pharmaceutical Sciences of Perugia University.

### Scientific production

Prof. Santi has published more than 190 peer-reviewed articles (including review articles) in indexed journal, edited 4 books and 3 special issues, and he wrote several book chapters.

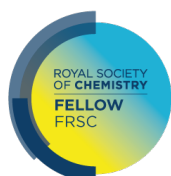
### Bibliometric Data

(PE macrosector – PE5\_17 Organic Chemistry)

Data source (Scopus) 17/10/23  
Number of indexed publications 192  
Citations 6194  
h-index 42  
Data Source (WoS -Publons) 17/10/23  
Number of indexed publications 218  
Citations 5881  
h-index 42  
Data Source (Google Scholar) 17/10/23  
Citations 7413  
h-index 47

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Scopus Author ID: 7004236169  
ResearcherID: B-7306-2014

### Invited (IL) and Plenary Lectures



- ICCST9 "9th International Conference on the Chemistry of Selenium and Tellurium" Bombay- India (IL-2004)
- HALCHEM V "5° International Meeting on halogen chemistry" Santa Margherita di Pula, Italy (IL-2010)
- RICMD4 "4th International Meeting on Molecular Chemistry and Development" Marrakesh Morocco (PL-2010)
- ESeTeIV "IV Encontro sobre Seleno e Telurio" Torres Brazil (PL-2012)
- ICCST12 "12th International Conference on the Chemistry of Selenium and Tellurium" Cardiff UK (PL-2013)
- RICMCA "1ere Rencontre Internationale de Chimie Moléculaire Chemiometrie & Applications" Beni Mellal Marocco (PL-2014)
- ISOCS-26 "26th International Symposium on Organic Chemistry of Sulfur" Istanbul Turkey (IL-2014)
- "CINMPIS Ventennium Conference" (1994-2014), Bari Italy (IL-2014)
- "Workshop on Selenium and Tellurium" WSeTe Santa Maria (RS) Brazil (IL-2014)
- 7th International Meeting on Halogen Chemistry (HALCHEM VII) Cestokowa, PL (IL-2015)
- WSeS-5 "5th Workshop of SeS Redox and Catalysis". Tokay University, Hiratsuaka, JP (IL-2016)
- ICCST13 "13th International Conference on the Chemistry of Selenium and Tellurium" Gifu JP (IL-2016)
- 39° Annual Meeting of the Brazilian Chemical Society, section Green Chemistry, Goiania (BS) (IL-2016)
- 39° Annual Meeting of the Brazilian Chemical Society, Italo-Brazilian Symposium on Organic Chemistry, Goianaia (BS) (IL-2016)
- Xth International Minisymposium (Current Problem in Organic Chemistry)-University of Lodz PL (IL-2017)
- 8th International Meeting on Halogen Chemistry (HALCHEM VIII), at Inuyama city, Aichi, Japan (IL-2017)
- WSeS-6 "6th Workshop of SeS Redox and Catalysis" Wroclaw, Poland (PL-2017)
- "Symposium on Selenium Chemistry and Biology" SSCB-2017, Mumbai India (IL-2017)
- ISOPS12 "12th International Symposium on Pharmaceutical Sciences" Ankara, Turkey (PL-2018)
- VII Encontro sobre Enxofre, Selênio e Telúrio & 7th Workshop of SeS Redox and Catalysis, Santa Maria, Brazil (PL-2018)
- ISOPS13 "13th International Symposium on Pharmaceutical Sciences" Ankara, Turkey (PL-2021)
- ICCBIKG 2021 "1st international Conference on Chemo and Bioinformatics" Kragujevac, Serbia (IL-2021)
- HALCHEM X "10° International Meeting on halogen chemistry" Lodz, PL(PL-2022)
- ICCST15 "15th International Conference on the Chemistry of Selenium and Tellurium" Florianopolis Brazil (IL-2022)
- 3th BIOSprint Workshop "The nex challenges of Bioaffineries" Lubjiana, Slovenia (IL 2023)
- Se2023 " 9th International selenium Conference focused on Se Chemistry, Biology and Medicine " Daejon, Korea (PL-2023)
- ICCB 2023 "the Interface of Chalcogen Chemistry and Biology" Tokay, Japan (IL 2023)

### Honors and Awards

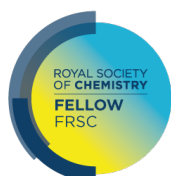
- 2015 nominated Senior Research Fellow of Mosul University-IRAQ
- 2017 Fellow of Royal Society of Chemistry -UK- (FRSC).
- 2018 awarded with the title of honorary professor at the Jan Dlugosz University of Czestochowa in Poland.
- 2018 included in the list "Top Italian Scientist" of the TIS (former Via-Academy)
- 2023 nominated member of the International Advisory Committee of Ankara University.

Furthermore, his editorial and dissemination activity received numerous certificates of merit as:

- the Tetrahedron: Asymmetry "Most Cited Paper 2004-2007 Award", the "RSC Advance Poster Prize" at Eurasia Conference on Chemical Sciences (2012),
- the Bentham "Certificate of appreciation" for the most cited paper in the Current Biological Chemistry journal (2016)
- in 2016 he resulted in the top 10% of the most cited authors for RSC chemical portfolio.
- Top 2% peer reviewers in Chemistry (2018) by Publons.
- Best Papers of 2022 from RSC's Environmental Science journals
- Best Papers 2022 – Environmental Science: Advances
- 2022/2023 he appeared in the database of 2% top-cited scientists among all the disciplines published by Elsevier and Sandford University based on standardized information on citations.
- In 2023 he appeared in the 2nd edition of Research.com ranking of the best scholars in the field of Chemistry

### Editorial Activity

He regularly acts as reviewer for several journals belonging to ACS, Wiley, RSC, Elsevier, Thieme, Springer, MDPI, Bentam, Taylor and Francis. He was/is member of several editorial and Scientific Boards: Editor in Chief of Current Chemical Biology, Bentham (2020-on), Associated Editor of the International Journal of Molecular Sciences (2013-on). Associated Editor of Current Green Chemistry (2018-on); member of the Editorial Board of Mini Review in Organic Chemistry (2016-on) member of the Editorial Board of Molecules (MDPI) (2016-on), member of the Editorial Board of International Journal of Molecular Sciences (2018-2022).



### Scientific Committees

He is permanent member of the scientific advisory Board of the International Conferences on Chemistry of Selenium and Tellurium (ICCST) and that of the "International Meeting of Halogen Chemistry" (HALCHEM)

In the last years, he has served on the following International Scientific Program Committees: He chaired the Workshops of the International network "SeSRedCat" WSeS-2 (2013), WSeS-3(2014), WSeS-8 (2019), participated at the scientific boards for ten consecutive Electronic conferences on Synthetic Organic Chemistry from (ECSOC-15) to (ECSOC-25) edited by MDPI (Molecules); was member of the scientific committee for the 1st International Meeting of Molecular Chemistry, Chemometrics and applications (RICMCA-2014) 29-30 May 2014 Bèni Mellal Maroc, In 2019 he acted as chairman of the 9<sup>th</sup> International Meeting on Halogen Chemistry (HALCHEM IX) – Perugia, co-chaired the 14<sup>th</sup> International Conference on the Chemistry of Selenium and Tellurium (ICCST-14) in Cagliari and in 2020 he acted as section editor of the 1st International Electronic Conference on Catalysis Sciences edited by Catalysis (MDPI). Since 2020 he is co-opted member in the committee of the "Chemical Biology and Bio-Organic Group" of the Royal Society of chemistry

### Teaching Experiences

Since 2001 he is professor of "Physical Methods for Organic Chemistry" 72hr/year (9CFU), since 2018 Professor of "Organic Chemistry" 84 hr/year (12 CFU). Previously he taught "Organic Chemistry of Natural Compounds" 42 hr/year (6 CFU) at the Department of Pharmaceutical Sciences of Perugia University, "Spectroscopic Methods for Biomolecules" 32hr/year (4CFU) at the school of Biotechnology University of Perugia. Furthermore he regularly teach a short course of "Structure Elucidation of Organic Molecules by NMR" at school of Doctorate in Pharmaceutical Sciences and "Catalysis " and the second level master on "Process development and production of active pharmaceutical ingredients" (PRO - API). Since 2006 he supervised (or co-advised) several experimental diploma work theses including incoming several Erasmus students, 8 PhD students 3 PhD Sandwich from Brazil and 1 PhD Sandwich from Morocco and 6 post docs.

### Institutional Appointments

From 2012 to 2014 he was Member of Bioethics Committee, University of Perugia: from 2013 – from 2013-2016 deputy of "Quality Assurance" for the Department of Pharmaceutical Sciences and From 2017 to 2022 he was deputy of "Research" for the Department of Pharmaceutical Sciences. In 2015 he was elected in the scientific committee of the University of Perugia involved in the self-evaluation processes for chemical sciences. From 2018 to 2022 he was a member of the executive-board of the DELPHI STAR LABS in the frame of the project "Dipartimenti di Eccellenza 2018-2022". IN 2023 he was elected as Degree Program Coordinator in Pharmaceutical Chemistry and Technology

### National and international Grants

2003-2005: participant at PRIN 2003, title of the project "Asymmetric synthesis of optically pure biologically relevant compounds mediated by organoselenium reagents. Addition and cyclization reactions"

2006-2008: participant at PRIN 2005, title of the project "Novel methods for the enantioselective synthesis of heterocyclic and polyfunctionalized compounds"

2008-2019: participant at PRIN 2007, title of the project "Development of novel methods for the enantioselective synthesis of heterocyclic and polyfunctionalized compounds"

2009-2010: Italian PI of an international project in the frame of BRITISH-ITALIAN PARTNERSHIP PROGRAMME FOR EARLY CAREER RESEARCHERS British Council and CRUI. Project title: Green Catalyst for Novel Chemistry.

2013-2014 Foreigner Researcher at the program FAPERG/CAPE-12/2013 - Internacionalização da PPG/RS- Project INTERNACIONALIZAÇÃO DA PÓS-GRADUAÇÃO EM QUÍMICA DA UFPEL.

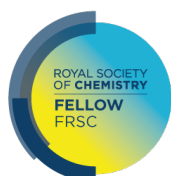
2015-2018: Local PI of IRRTF project "Selenium (Redox) Therapeutics" in the frame of "International Research and Research Training Fund (IRRTF) of the University of Melbourne"

2017 FFABR 2017 "Fondo per il finanziamento delle attività base di ricerca" (individual grant supported by MIUR)

2019 Italian PI at CAPES-Print/UFPEL project "Moléculas bioativas contendo selênio – Síntese, caracterização e aplicações",

2020-2023 COSY Thinking Project (2020-1-SE01-KA203-077872) co-funded by the European Commission.

2023: " National Innovation Ecosystem grant ECS00000041 - VITALITY - CUP J97G22000170005, funded by the European Union – NextGenerationEU under the Italian Ministry of University and Research (MUR)" (Participant, member of the Stirring Committee and PI of the local project "Lignin-riginated biomaterial for cosmetic applications").



### Other funding sources

Prof Santi coordinated several research programs commissioned by local, national and multinational companies and supervised research grants for young researcher and post doc assigned by UE, Regione Umbria, local foundations and the interuniversity consortium CINPIS.

“In compliance with the Italian legislative Decree no. 196 dated 30/06/2003, I hereby authorize you to use and process my personal details contained in this document.”

16<sup>th</sup> August 2023

Prof Claudio Santi

