

## **Dr Mattia Silvi**

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### **Research Experience and Education**

- 2023- Associate Professor and Research Group Leader at the University of Nottingham.
- 2022-2023 Assistant Professor and Research Group Leader at the University of Nottingham.
- 2019-2022 Nottingham Research Fellow and Research Group Leader at the University of Nottingham.
- 2016-2019 Post-Doctoral Researcher. University of Bristol, UK. Prof. Varinder K. Aggarwal FRS group.
- 2015 PhD in Organic Chemistry *cum laude*. ICIQ, Tarragona, Spain. Prof. Paolo Melchiorre group.
- 2014 Visiting PhD Student. University of Michigan, USA. Prof. John P. Wolfe group.
- 2011 MSc in Organic Chemistry *cum laude*. University of Rome, Italy. Prof. Marco Bella group.
- 2008 BSc in Chemistry *cum laude*. Sapienza University of Rome, Italy.

### **Fellowships and Awards**

- 2025 Philip Leverhulme Prize. "For their work on the development of novel synthetic chemistry reactions and methods with particular emphasis in photochemical methods". [Link](#)
- 2025 Visiting Professorship at the University of Milan (IT). Fellowship covering salary and research.
- 2025 RSC Hickinbottom Prize. "For the development of creative synthetic strategies through the design of novel radical acceptors" – RSC Research and innovation prize. [Link](#)
- 2024 JSP Fellowship for Bürgenstock Conference. Conference fellowship and invited flash talk. [Link](#)
- 2024 Leverhulme Trust Research Project Grant. Research Grant. £200k
- 2024 Visiting Professorship at the University of L'Aquila (IT). Fellowship covering salary and research.
- 2023 Young Career Focus Synform. Invited profile page on the journal Synform. [Link](#)
- 2023 Thieme Chemistry Journals Award. International award. [Link](#)
- 2020&2023 RSC Chemical Science Outstanding Referee. International awards. [Link](#)
- 2022 ERC Starting Grant. Research Grant. €1.5M
- 2021&2023 AstraZeneca CASE / iCASE Awards. Grants for PhD studentship support.
- 2021&2023 Nottingham Reward Scheme Awards. Research productivity awards.
- 2020 MIUR Italian University Professorship Habilitation ("Il Fascia"). Professorship habilitation.
- 2020 EPSRC New Investigator Award. Research grant. £500k
- 2019 Nottingham Research Fellowship. Independent research fellowship.
- 2017 Marie Skłodowska-Curie Individual European Fellowship. Post-doctoral research. €180k
- 2014 ICIQ-UM Global Engagement Program Fellowship. Short-term research fellowship in USA.
- 2014 Conference Travel Award. Award, Karle-Vaughan Symposium 2014. Ann Arbor, MI, USA.

**Conference and Invited Presentations (Only Plenary or Invited Talks)**

- 2025 28th International symposium: Synthesis in organic chemistry, Cambridge, UK
- 2025 Anatolian Conference on Organic Chemistry: ACOC, Antalya, TK.
- 2025 University of Manchester, UK.
- 2024 University of Lancaster, UK.
- 2024 University of L'Aquila, Italy.
- 2024 Emerging Academic Seminar, GlaxoSmithKline, Stevenage. UK
- 2024 AstraZeneca, Macclesfield, UK
- 2023 RSC New Frontiers in Synthetic Chemistry 2023, London. UK
- 2023 IUPAC World Chemistry Congress 2023, The Hague. Netherlands.
- 2023 European-Winter Symposium on Physical Organic Chemistry, Bressanone. Italy.
- 2023 University of Padua, Italy.
- 2023 Van 't Hoff Institute for Molecular Sciences, University of Amsterdam, Netherlands.
- 2023 Jagiellonian University of Krakow, Poland.
- 2022 University of Bologna, Italy.
- 2022 Sapienza University of Rome, Italy.
- 2019 University of Auckland, New Zealand.
- 2018 University of L'Aquila, Italy.
- 2018 University of Geneva, Switzerland.
- 2018 University of Bristol, United Kingdom.
- 2018 University of Trieste, Italy.
- 2018 University of Padova, Italy.
- 2018 Sapienza University of Rome, Italy.

**Teaching Activities**

- 2021- *Organic and Inorganic Chemistry Laboratories for Undergraduates*. University of Nottingham.
- 2021- *Intermediate Organic Synthesis*, lecture course for MSci. University of Nottingham.
- 2020- *Organic Chemistry Undergraduate Tutor*. University of Nottingham.
- 2017-2024 *Modern Photochemistry*. Short Lecture Course. University of Bristol, UK; University of Rome, L'Aquila, Padua, Venice and Trieste, IT.

**Publications**

24. Highlights from the 58th Bürgenstock Conference on Stereochemistry 2025  
Mattia Silvi\* and Claudia Bonfio\*  
*Chemical Science*, **2025**, 16, 15763–15768.
23. Thianthrenium Salt-Mediated Homologative 1,3-Dielectrophilic Activation Strategy for Alkene Difunctionalization  
Subhasis Paul, Adam Richardson, Louis Buck, Giovanni Centonze, Roberta Coccia, Francesca Sardelli and Mattia Silvi\*  
*Angewandte Chemie Novit*, **2025**, 1, e70005. (*Highlighted in Angew. Chem. Int. Ed.*)

22. One Carbon at a Time: Unlocking Iterative Carboxylic Acid Homologation  
Emilie Wheatley and Mattia Silvi\*  
*Synlett*, **2025**, 36, 1785-1791. ([Synfacts invited contribution](#))
21. Iterative, One-Carbon Homologation of Unmodified Carboxylic Acids  
Emilie Wheatley, Heorhii Melnychenko and Mattia Silvi\*  
*Journal of the American Chemical Society* **2024**, 146, 34285–34291. [Most read paper in JACS](#)
20. Atom-Swap Chemistry Could Aid Drug Discovery (News & Views)  
Filippo Ficarra and Mattia Silvi\*  
*Nature* **2023**, 623, 36–37.
19. Oxetane Synthesis via Alcohol C–H Functionalization  
Subhasis Paul, Dario Filippini, Filippo Ficarra, Heorhii Melnychenko, Christopher Janot and Mattia Silvi\*  
*Journal of the American Chemical Society* **2023**, 145, 15688–15694. [Highlighted in Synfacts, Nature Catalysis, OPR&D and Org. Chem. Highlights; Most read paper in JACS for Aug-Sep 23](#)
18. Polarity Transduction Enables the Formal Electronically Mismatched Radical Addition to Alkenes  
Subhasis Paul, Dario Filippini and Mattia Silvi\*  
*Journal of the American Chemical Society* **2023**, 145, 2773–2778. [Highlighted in Synfacts; Most read paper in JACS for Feb-Mar 23](#)
17. The Conceptual Development of a Conjunctive Olefination  
Dario Filippini and Mattia Silvi\*  
*Synlett*, **2022**, 33, 1011-1016. ([Synfacts invited contribution](#))
16. Visible-Light-Driven Conjunctive Olefination  
Dario Filippini and Mattia Silvi\*  
*Nature Chemistry*, **2022**, 14, 66-70. [Highlighted in Synfacts](#)
15. Visible-Light-Driven Strain-Increase Ring Contraction Allows Synthesis of Cyclobutyl Boronic Esters  
Raffael Davenport, [Mattia Silvi](#), Adam Noble; Zied Hosni, Natalie Fey and Varinder K. Aggarwal\*  
*Angewandte Chemie International Edition*, **2020**, 59, 6525-6529.
14. Radical Addition to Strained  $\sigma$ -Bonds Enables the Stereocontrolled Synthesis of Cyclobutyl Boronic Esters  
[Mattia Silvi](#) and Varinder K. Aggarwal\*  
*Journal of the American Chemical Society*, **2019**, 141, 9511-9515.
13. Re-optimization of the Organocatalyzed Double Aldol Cascade Process to a Key Enal Intermediate and its Application to the Total Synthesis of  $\Delta^{12}$ -Prostaglandin J<sub>3</sub>  
Andrejs Pelss, Narasimhulu Gandhamsetty, James Smith, Daniel Mailhol, [Mattia Silvi](#), Andrew Watson, Sébastien Prévost, Nina Schützenmeister, Peter Moore and Varinder Aggarwal\*  
*Chemistry – A European Journal*, **2018**, 24, 9542-9545. [Highlighted in Synfacts](#)
12. Enantiospecific Three-Component Alkylation of Furan and Indole  
[Mattia Silvi](#), Raffael Schrof, Adam Noble and Varinder K. Aggarwal\*  
*Chemistry – A European Journal*, **2018**, 24, 4279-4282.
11. Enhancing the Potential of Enantioselective Organocatalysis with Light  
[Mattia Silvi](#) and Paolo Melchiorre\*  
*Nature*, **2018**, 554, 41-49.

10. Direct Stereoselective Installation of Alkyl Fragments at the  $\beta$ -Carbon of Enals via Excited Iminium Ion Catalysis  
Charlie Verrier, Nurtalya Alandini, Cristofer Pezzetta, Mauro Moliterno, Luca Buzzetti, Hamish B. Hepburn, Alberto Vega-Peñaloza, [Mattia Silvi](#) and Paolo Melchiorre\*  
*ACS Catalysis*, **2018**, 8, 1062-1066. [Highlighted in Synfacts](#)
9. Visible-Light Excitation of Iminium Ions Enables the Enantioselective Catalytic  $\beta$ -Alkylation of Enals  
[Mattia Silvi](#), Charlie Verrier, Yannick Rey, Luca Buzzetti and Paolo Melchiorre\*  
*Nature Chemistry*, **2017**, 9, 868-873. [Highlighted in Chemistry World and Chem \(Cell Press\)](#)
8. Merging Photoredox with 1,2-Metallate Rearrangements: The Photochemical Alkylation of Vinyl Boronate Complexes  
[Mattia Silvi](#), Christopher Sandford and Varinder K. Aggarwal\*  
*Journal of the American Chemical Society*, **2017**, 139, 5736-5739. [Highlighted in Angewandte Chemie International Edition](#)
7. Enantioselective Formal  $\alpha$ -Methylation and  $\alpha$ -Benzylation of Aldehydes by Means of Photo-Organocatalysis  
Giacomo Filippini, [Mattia Silvi](#) and Paolo Melchiorre\*  
*Angewandte Chemie International Edition*, **2017**, 56, 4447-4451. [Highlighted in Synfacts](#)
6. Enamine-Mediated Catalysis ( $n - \pi^*$ )  
John J. Murphy, [Mattia Silvi](#) and Paolo Melchiorre\*  
In *Lewis Base Catalysis in Organic Synthesis*, Vol. 2. - Wiley-VCH: Weinheim, **2016**; 857–902. [Book Highlighted in Angewandte Chemie International Edition](#)
5. Synthesis of Cyclic Guanidines via Silver-Catalyzed Intramolecular Alkene Hydroamination Reactions of N-Allylguanidines  
Zachary J. Garlets, [Mattia Silvi](#) and John P. Wolfe\*  
*Organic Letters*, **2016**, 18, 2331–2334.
4. Enantioselective Organocatalytic Alkylation of Aldehydes and Enals Driven by the Direct Photoexcitation of Enamines  
[Mattia Silvi](#), Elena Arceo, Igor D. Jurberg, Carlo Cassani and Paolo Melchiorre\*  
*Journal of the American Chemical Society*, **2015**, 137, 6120-6123. [Highlighted in Synfacts](#)
3. Controlling the Molecular Topology of Vinylogous Iminium Ions by Logical Substrate Design: Highly Regio- and Stereoselective Aminocatalytic 1,6-Addition to Linear 2,4-Dienals  
[Mattia Silvi](#), Indranil Chatterjee, Yiankai Liu and Paolo Melchiorre\*  
*Angewandte Chemie International Edition*, **2013**, 52, 10780-10783.
2. Enantioselective Aza-Michael Addition of Imides by Using an Integrated Strategy Involving the Synthesis of a Family of Multifunctional Catalysts, and Rational Design of Experiment  
[Mattia Silvi](#), Polyssena Renzi, Deborah Rosato, Cristiana Margarita, Alessio Vecchioni, Ivan Bordacchini, Diego Morra, Riccardo Cari, Fabio Sciubba, Daniele Schietroma and Marco Bella\*  
*Chemistry – A European Journal*, **2013**, 19, 9973-9978.
1. Secondary Amine-Catalyzed Asymmetric  $\gamma$ -Alkylation of  $\alpha$ -Branched Enals via Dienamine Activation  
[Mattia Silvi](#), Carlo Cassani, Antonio Moran and Paolo Melchiorre\*  
*Helvetica Chimica Acta*, **2012**, 95, 1985-2006.