

## 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.
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**Conference and Invited Presentations (Plenary or Invited Talks)**

- 2026 University of Oxford Early Career Researcher Symposium, Oxford, UK.
- 2025 28th RSC 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**

25. A Unified Synthetic Approach to 2-Alkyl Azetidines, Oxetanes, Thietanes and Cyclobutanes from Unactivated Alkenes  
Louis Buck, Maria Pelosi, Subhasis Paul, Emilie Wheatley, Adam Richardson, Soumen Ghosh, Francesca Sardelli, Mattia Silvi\*  
*Journal of the American Chemical Society* **2025**, 147, 44652–44660. [Most read in JACS](#)

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 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  $\alpha$ -Benzoylation 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.