

## Curriculum Vitae

### Prof. Dr. Paolo Melchiorre

Professor of Chemistry at the Industrial Chemistry Department 'Toso Montanari'  
University of Bologna (UNIBO), Italy

Date of birth: 29 May 1973 - Nationality: Italian



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Researcher unique identifiers: Researcher ID: K-9301-2014 [\[link\]](#); ORCID: 0000-0001-8722-4602 [\[link\]](#)

The following list summarises the most important steps of my educational and professional career:

• MSc in Chemistry	University of Bologna (Italy)	1993-1999
• PhD in Chemical Sciences	University of Bologna	2000-2003
• Research Period at Center for Catalysis	University of Århus (DK)	2002
• Postdoctoral Fellow in Chemistry	University of Bologna	2003-2006
• Assistant Professor	University of Bologna	2007-2009
• ICIQ Group Leader and ICREA Professor	ICIQ, Tarragona (Spain)	2009-2022

### CURRENT POSITION

Professor of Chemistry	University of Bologna	from October 2022
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### FELLOWSHIPS, AWARDS and DISTINCTIONS

- 2007 Recipient of the "G. Ciamician" Gold Medal of the Italian Chemical Society
- 2008 Recipient of the *Liebig Lectureship* awarded by the German Chemical Society
- 2009 ICREA (Institutió Catalana de Recerca i Estudis Avançats) Research Professor
- 2011 *Young Talented Lecture* in the 17<sup>th</sup> European Symposium on Organic Chemistry (ESOC 2011), Crete
- 2011 **ERC Starting Grant** to carry out the 5-year project "ORGA-NAUT: Exploring Chemical Reactivity with Organocatalysis"
- 2013 *JSPS Fellowship* under the FY2013 Program for Research in Japan
- 2014 *Erdtman Lecture 2014* – October 2014, Stockholm, Sweden (presented annually to an organic chemist, worldwide)
- 2016 **ERC Consolidator Grant** to carry out the 5-year project "CATA-LUX: Light-Driven Asymmetric Organocatalysis"
- 2016 Prize for Scientific Excellence from the Royal Spanish Chemical Society (RSEQ)
- 2019 "Giorgio Modena" Medal from the Italian Chemical Society
- 2019 **ERC Proof of Concept** to carry out the project "LIGHT-COAT" on photo-polymerisations
- 2020 Fellow of the Royal Society of Chemistry (FRSC)
- 2021 **Pedler Award** of the Royal Society of Chemistry (RSC) "for the development of asymmetric photocatalytic methodologies based on excited state intermediates"
- 2023 *Xingda Lecture*, Peking University, China (presented annually to an organic chemist, worldwide)
- 2024 **Premio Linco per la Chimica**, awarded by the *Accademia dei Lincei*, Rome, June 2024 (presented annually in the presence of the President of the Italian Republic)
- 2024 **ERC Advanced Grant** to carry out the 5-year project "PHOTOZYME: Enhancing the Potential of Enzymatic Catalysis with Light"
- 2025 *Novartis Chemistry Lectureship*
- 2025 Fellow of the *European Academy of Sciences - EurASc*, Chemistry Division

### SUPERVISION OF GRADUATE STUDENTS AND POSTDOCTORAL FELLOWS

2007 – 2024 I have supervised and mentored a total of 36 PhD students (28 PhDs already granted, 8 presently working in my research team), 52 postdoctoral researchers (6 presently working in my research group), and 25 visiting scientists (including Master students, visiting PhD students, and visiting Professors on a 3-12-month tenure).

**Contributions to careers of early-stage researchers.** Some of my past associates have gone on to independent academic careers. Examples follow (name, time, present position): Armando Carlone (PhD 2005-2008) Associate Professor at University of L'Aquila, Italy; Yankai Liu (Marie Curie Fellow 2011-13) Assistant Professor at Ocean University, Qingdao, China; Igor D. Jurberg (Postdoc 2012) Assistant Professor at Campinas University, Brazil; Indranil Chatterjee (Postdoc 2012-2014) Professor at IIT Ropar, Punjab, India; Xu Tian (PhD 2010-2014) 'Thousand Talents Fellow' at Guangzhou Medical University, China; Mattia Silvi (PhD 2011-2015) Research Fellow at Nottingham University, UK; Luca Dell'Amico (Marie Curie Fellow 2015-2016) Associate Professor at the University of Padua, Italy; Ana Bahamonde (PhD 2014-2017)

Assistant Professor at University of California, Riverside, USA; *Sudipta Raha Roy* (Marie Curie Fellow 2018-2019) Professor at IIT Delhi, India; *Zhong-Yan Cao* (Marie Curie Fellow 2017-2018) Professor at Zhejiang University of Technology, Hangzhou, China; *Benjamin Laroche* (Postdoc 2019-2020) Assistant Professor at ESPCI Paris, PSL, France; *Manuel Nappi* (PhD 2011-2014) Junior Group Leader at CIQUS, Santiago de Compostela, Spain; *Giacomo Crisenza* (Marie Curie Fellow 2020-2021) Lecturer at the University of Manchester; UK.

*Selected industry-related careers* – *Giulia Bergonzini* (PhD 2009-2013) to Astra Zeneca, Goteborg, Sweden; *Carlo Cassani* (PhD 2009-2013) to Astra Zeneca, Goteborg, Sweden; *Elena Arceo Rebollo* (Postdoc 2011-2014) to Verisk Analytics Inc, Washington, USA; *Bertrand Schweitzer-Chaput* (Postdoc 2015-2019) and *Pablo Bonilla* (PhD 2016-2020) to Janssen, Beerse, Belgium; *Riccardo DiSanza* (Postdoc 2020-2021) to Signature Discovery, Nottingham, UK; *Jan Vilím* (Postdoc 2021-2022) to Loschmidt Laboratories/Enantis, Brno, Cz; *Catherine Holden* (Marie Curie fellow 2018-2020) to Syngenta Crop Protection, Jealott's Hill, UK.

## TEACHING ACTIVITIES

During my time at ICIQ, I taught 'Stereoselective and Asymmetric Synthesis' at the graduate level (30 hours a year). At the University of Bologna, I am teaching advanced organic chemistry, photochemistry and radical catalysis, and asymmetric catalysis at undergraduate and graduate levels (140 hours a year)

In addition, I have delivered advanced courses dedicated to PhD students in many International Schools.

## INSTITUTIONAL RESPONSIBILITIES

2022 - present Delegate for Research of the Industrial Chemistry Department '*Toso Montanari*', UNIBO

2019 - present Associate Editor for *Chemical Science*, the flagship Royal Society of Chemistry journal

2020 - 2022 Member of the ICIQ Scientific Strategy Committee

2019 - present Guest Editor for an upcoming (2022) special issue in Photocatalysis for *Chemical Reviews*

2013 ICIQ Seminar Manager, in charge of the 2013 seminar program at ICIQ (info [here](#))

2009 - present Jury member for 34 PhD theses at international universities

## ORGANISATION OF SCIENTIFIC MEETINGS

2026 Organiser of the 14<sup>th</sup> ISOFR International Symposium of Organic Free Radicals, Bologna (Italy, June 7-10, 2026)

2025 Organiser of the 1st Japanese-Italian Symposium on Organic Chemistry, Bari (Italy, October 12-15, 2025)

2023 Co-organiser of the 3<sup>rd</sup> Japanese-Spanish Symposium on Modern Synthetic Methodology, San Sebastian (Spain) (info at <https://jssos.es/>, I also organised the first edition in 2017)

2022 Organiser of the *Chemical Science* symposium 2022: Sustainable synthesis and catalysis, London (UK). November 2022: 150 delegates (info [here](#))

Since 2019 Co-organiser of the IASOC - Ischia Advanced School of Organic Chemistry, Ischia, Italy

2018 Organiser of the 1st European Meeting of Excellence in Chemistry (EMEC), Vienna (Austria). 3 Dec 2018: 30 delegates from the industrial and academic chemistry sectors

2015 Organiser of the symposium "*Lights on Chemistry*", ICIQ, Tarragona, October 2015: 160 delegates (info at <http://lightsonchemistry.iciq.es/>)

## REVIEWING ACTIVITIES

2013 – now Member of the *Advanced Synthesis and Catalysis* (Wiley) Academic Advisory Board

2013 – now Member of the International Advisory Board of *ChemCatChem* (Wiley)

2016 – now Member of the International Advisory Board of *ChemPhotoChem* (Wiley)

2005 – now Served as referee for the following international journals, among others: *Nature*, *Nature Chemistry*, *Angew. Chem. Int. Ed.*, *J. Am. Chem. Soc.*; *Chem. Sci.* etc.

2018 – 2019 In 2018 and 2019, one of the top three contributing referees for ACIE (39 and 35 referee reports, respectively – personal communication from the Editorial Board).

2017 – now Occasional scientific consultant for Janssen, Syngenta, Bayer, and Merck.

2008 – now Evaluator of scientific proposals for different national scientific agencies, including: ERCEA; the Deutsche Forschungsgemeinschaft (DFG, Germany); the Swiss National Science Foundation (SNF, Switzerland); the National Science Foundation (NSF, USA); Agence Nationale de la Recherche (ANR, France); etc.

2015 – now Evaluator for career promotion: University of Manchester (UK); Institute of Transformative Bio-Molecules (ITbM), Nagoya; the National University of Singapore, among others.

## MEMBERSHIPS OF SCIENTIFIC SOCIETIES

2004 Member of Società Chimica Italiana (SCI)

2010 Member of the American Chemical Society (ACS) and Real Sociedad Española de Química

2020 Member of the Royal Society of Chemistry (RSC)

## MAJOR COLLABORATIONS

- 2023 - present Scientific collaboration with David Baker and Gerrit Poelarends on designed photoenzymes for promoting asymmetric radical processes.
- 2022 - present Scientific collaboration with Johnson & Johnson Syngenta (Toledo – Spain, Dr Antonio Misale) on the design of photochemical radical processes for the late-stage modifications of biorelevant molecules.
- 2018 - present Scientific collaboration with Syngenta (Jealott's Hill – UK) on the design of photochemical radical cascade processes for the preparation of bio-relevant chiral molecules.
- 2018 - 2022 Scientific collaboration with Bayer AG Pharmaceuticals (Wuppertal – Germany) on the development of new photoredox methodologies for amide synthesis. Part of the scientific results published in *Angew. Chem. Int. Ed.* **2020**, 59, 5248–5253 [[link](#)].

## LEADERSHIP in INDUSTRIAL INNOVATION or DESIGN

In 2020, he co-founded *Trellum Technologies Ltd*, a spin-off of ICIQ. *Trellum Technologies* brings together several ICIQ research groups, pooling their expertise and know-how on photocatalysis and reactor-building in order to provide a new line of photoreactors for photochemical applications, including in industrial settings.

## GRANTED AND FILED PATENTS

- 'Cinchona alkaloid derivatives, their process of preparation and their use as catalysts', EP2687527 (A1)
- 'Photoinitiator compounds' WO2020011922
- 'Carboxylic dithiocarbamic acid anhydride and compositions thereof', EP20382017.0

## SELECTED LECTURES FROM >250 SCIENTIFIC TALKS SINCE 2014

**Plenary/invited Lectures** - selected examples:

- *Congress of the Chemical Society of Japan*, Nagoya (Japan), March 2014
- *39<sup>th</sup> Naito Conference* 'The chemistry of organocatalysts' - Sapporo (Japan), July 2015
- *JCO 2016*, Journées de Chimie Organique - Paris (France), September 2016
- *ISOFR 12*, 12<sup>th</sup> International Symposium on Organic Free Radicals - Shanghai (China), October 2016
- *Beilstein Organic Chemistry Symposium* on 'Tomorrow's Catalysis' - Potsdam (Germany), October 2017
- *Japanese National Symposium in Organocatalysis* - Sendai (Japan), November 2017
- *1st Alpine Winter Conference* on Medicinal and Synthetic Chemistry - St. Anton (Austria), January 2018
- *BOS 18*, Balticum Organicum Syntheticum 2018 - Tallinn (Estonia), July 2018
- *17th BMOS*, Brazilian Meeting in Organic Chemistry - Salvador (Brazil), October 2018
- *54<sup>th</sup> Bürgenstock Conference* 2019 - Brunnen (Switzerland), May 2019
- *ESOC*, European Symposium of Organic Chemistry - Vienna (Austria), July 2019
- *1<sup>st</sup> Symposium on Synthetic Chemistry and Catalysis* - NTU Singapore, January 2020
- *2<sup>nd</sup> EurJOC Virtual Symposium*, April 2020
- *3<sup>rd</sup> International Conference on Hydrogen Atom Transfer (iCHAT 2022)*, Rome, July 2022
- *53<sup>rd</sup> Symposium on Catalysis*, Prague, November 2022
- *2023 Gordon Research Conference* on Organic Reactions and Processes (USA), July 2023
- *6<sup>th</sup> Green Chemistry Euchems*, Sorrento (Italy), September 2023
- *Torkil Holm Symposium 2024*, Copenhagen (Denmark), January 2024
- *18<sup>th</sup> Belgian Organic Synthesis Symposium*, Liège, Belgium, July 2024

**Invited Research Talks** - selected examples:

- *Erdtman Lecture* 2014 (*named lecture*) - Stockholm (Sweden), October 2014
- *Syngenta Chemistry lecture* 2017 - Stein (Switzerland), October 2017
- University of Cambridge (UK), October 2017
- Department Lecture at Princeton University (US), April 2018
- Mc Gill University, Montréal (Canada), December 2019
- *Xingda Lecture* 2023 (*named lecture*) – Peking University (virtual visit), April 2023
- *Bristol-Myers-Squibb Lecture*, University of Illinois, Urbana-Champaign, February 2024
- *15<sup>th</sup> European Conference on Organic Free Radicals* – ECOFR XV, Manchester, September 2024

## Research Record

Paolo Melchiorre has authored more than 145 publications in international journals with a high impact factor: e.g. 3 × *Nature*; 47 × *Angewandte Chemie*; 4 × *Nature Chemistry*; 1 × *Nature Catalysis*; 1 × *Nature Protocols*; 1 × *PNAS*; 16 × *the Journal of American Chemical Society*. **h factor = 86** - His papers have attracted a total of **21700** citations (source: Google Scholar as of January, 2025) [[link](#)]