

Eric Meggers – *Curriculum Vitae*

10.05.1968 in Bonn, Germany; married with two children

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EDUCATION

- 1999 Ph.D. in Organic Chemistry (*summa cum laude*)
Department of Chemistry, University of Basel, Switzerland
Advisor of PhD thesis: Prof. Dr. Bernd Giese
- 1995 Diploma in Chemistry (*mit Auszeichnung*)
Institute of Organic Chemistry, University of Bonn, Germany
Advisor of Diploma thesis: Prof. Dr. Eberhard Steckhan

CURRENT POSITION

2007–present Full Professor (W3), Department of Chemistry, University of Marburg, Germany

PREVIOUS POSITIONS

- 2011–2016 Group Leader together with Prof. Lei Gong, College of Chemistry and Chemical Engineering, Xiamen University, Xiamen, P. R. China
- 2007–2013 Adjunct Faculty Member, The Wistar Institute, Philadelphia, USA
- 2002–2007 Assistant Professor, Department of Chemistry, University of Pennsylvania, Philadelphia, USA
- 1999–2002 Postdoctoral Researcher, The Scripps Research Institute, La Jolla, USA (with Prof. Dr. Peter G. Schultz)

FELLOWSHIPS, AWARDS AND HONORS

- 2023 NHU-CJC Award (NHU Co., Ltd and Chinese Journal of Chemistry)
- 2022 EurJOC Wiley Lecture (Journées de Chimie Organique, École Polytechnique, Palaiseau, France)
- 2020 ERC-Advanced Grant (ERC-2019-ADG)
- 2019 Bristol-Myers Squibb Lectureship at the University of Illinois at Urbana-Champaign (Champaign, Illinois, USA)
- 2017 Novartis Synthetic Organic Chemistry Lectureship at UT Austin (Austin, Texas, USA)
- 2017 The Zasshikai Lectureship (The University of Tokyo, Tokyo, Japan)
- 2017 SUSTech Chemical Sciences Lectureship (SUSTech, Shenzhen, P. R. China)
- 2016 IOCF Yoshida Lectureship Award (Kyoto and Osaka University, Japan)
- 2009–2010 Novartis Chemistry Lectureship Award
- 2006–2008 Alfred P. Sloan Research Fellow, USA
- 2006 Nanqiang Lectureship Award (Xiamen University, Xiamen, P. R. China)

2006	Camille Dreyfus Teacher-Scholar Award, USA
2003	Thieme Chemistry Journal Award
2002	Camille and Henry Dreyfus New Faculty Award, USA
2001–2002	Emmy Noether Fellowship from the German Research Foundation
1999–2000	Feodor-Lynen-Fellowship of the Alexander von Humboldt Foundation
1995–1999	Fellowship of the Swiss National Science Foundation
1996	Award from the Heinrich-Hörlein-Memory-Foundation
1994–1995	Stipend from the Theodor-Laymann-Foundation

PUBLICATIONS

Co-author of 208 peer-reviewed research publications, 25 reviews and accounts, and 6 patents or patent applications. Total citations = 16802, h-index 76 (Web of Science, all databases, August 31, 2023).

SCIENTIFIC ACCOMPLISHMENTS

Exploiting metal-centered stereochemistry for applications in medicine, chemical biology, and asymmetric catalysis. Pioneering work on the design of metal-based enzyme inhibitors in which the metal exerts a purely structural role. Pioneering development of “chiral-at-metal” transition metal complexes featuring exclusively metal-centered chirality (only achiral ligands) for applications in asymmetric catalysis, including visible-light-induced catalysis and stereocontrolled nitrene-mediated C(sp³)-H functionalizations. For the evolution of this research program, starting with enzyme inhibitor design and later continuing with chiral catalyst design, see the following essay: *Angew. Chem. Int. Ed.* **2017**, *56*, 5668.

Key accomplishments:

- One-step catalytic asymmetric synthesis of α -amino acids from carboxylic acids (*Nat. Synth.* **2023**, *2*, 645).
- Novel stereocontrolled 1,3-migratory C(sp³)-H nitrene insertion mechanism and application to the synthesis of α -amino acids (*Nat. Chem.* **2022**, *14*, 566).
- Pioneering work on the design of “chiral-at-metal” transition metal catalysts featuring exclusive metal-centered chirality (*Chem. Rev.* **2023**, *123*, 4764; *Acc. Chem. Res.* **2017**, *50*, 320; first report: *JACS* **2014**, *136*, 2990).
- Development of visible-light-activated asymmetric catalysis using single catalysts which combine photoactivation and asymmetric catalysis (*Acc. Chem. Res.* **2017**, *50*, 320; *Acc. Chem. Res.* **2019**, *52*, 833; first report: *Nature* **2014**, *515*, 100).
- Development of strategies for the asymmetric synthesis of chiral octahedral metal complexes by employing chiral auxiliaries and chiral catalysts (*Acc. Chem. Res.* **2013**, *46*, 2635; first report: *JACS* **2009**, *131*, 9602).
- Establishing inert organometallic complexes as powerful scaffolds for the design of highly potent and selective enzyme inhibitors (account: *Synlett* **2007**, 1177; first report: *JACS* **2004**, *126*, 13594; see also: *JACS* **2011**, *133*, 5976). Organometallic complex commercially available as a selective molecular probe for a protein kinase: EMD Millipore, catalog number 361558, “GSK-3 Inhibitor XV”.
- Organometallic compounds for bioorthogonal catalysis in biological systems (first report: *Angew. Chem. Int. Ed.* **2006**, *45*, 5645; see also: *Angew. Chem. Int. Ed.* **2014**, *53*, 10536).
- Discovery and development of the minimal nucleic acid GNA containing an acyclic C₃ backbone (*Acc. Chem. Res.* **2000**, *43*, 1092; first report: *JACS* **2005**, *127*, 4174).
- Postdoc: First example of an artificial metal-mediated base pair in DNA (*JACS* **2000**, *122*, 10714).
- Ph.D.: Contributions to unraveling the mechanism of long-range charge transport in duplex DNA through a guanine-hopping mechanism (*JACS* **1998**, *120*, 12950).

INVITED LECTURES ON INTERNATIONAL CONFERENCES/SYMPOSIA (selected)

Overall >200 presentations in Academia and Industry since the beginning of independent career.

- International Conference on Photochemistry and Industry 2023, **Plenary Lecture** (Wuhan, P. R. China, October 12, 2023)
- Journées de Chimie Organique (JCO 2022), **Plenary Lecture**, **EurJOC Wiley Lecture** (École Polytechnique, Palaiseau, France, November 2, 2022)
- Journée André Collet de la Chiralité (JACC 2022), **Plenary Lecture** (Biarritz, France, October 7, 2022)
- First Symposium on Bioorganometallic Chemistry – *20 years after*, **Plenary Lecture** (Sorbonne Université, Campus Pierre et Marie Curie, July 8, 2022)
- 5th International Conference on Organometallics and Catalysis, Virtual Event, **Keynote Lecture** (The Chinese University of Hong Kong, June 12, 2022)
- Online Symposium of the Spanish Royal Society of Chemistry 2021, **Plenary Lecture** (September 29, 2021)
- International Conference on Organometallics and Catalysis (ICOC 2018), Invited Lecture (Goa, India, December 15, 2018)
- CCNU Synthetic Photochemistry Symposium, Invited Lecture (Wuhan, P. R. China, Nov. 28, 2018)
- Northern Section of the American Chemical Society Process Chemistry Symposium, Invited Lecture (Cambridge, Massachusetts, USA, October 19, 2018)
- 7th Spanish Asymmetric Catalysis Network Symposium, **Plenary Lecture** (Hondarribia, Spain, October 5, 2018)
- 26. Lecture Conference on Photochemistry, **Keynote Lecture** (Garching, Germany, Sept. 12, 2018)
- 43rd International Conference on Coordination Chemistry (ICCC 2018), Invited Lecture (Sendai, Japan, July 31, 2018)
- 16th Belgian Organic Synthesis Symposium, **Plenary Lecture** (Brussels, Belgium, July 12, 2018)
- ACS Publications Symposium at Shanghai Institute of Organic Chemistry, Invited Lecture (Shanghai, P. R. China, October 23, 2017)
- German-Spanish Symposium on Frontiers in Chemistry, ICIQ, Invited Lecture (Tarragona, Spain, September 26, 2017)
- IUPAC 2017, 46th World Chemistry Congress, Invited Lecture (São Paulo, Brazil, July 13, 2017)
- Conference on Applications of Photoactive Coordination Compounds (APCC 2017), University of St Andrews, Invited Lecture (Scotland, July 6, 2017)
- 97th Chemical Society of Japan Annual Meeting, Coordination Asymmetry Symposium, Invited Lecture (Yokohama, Japan, March 19, 2017)
- 12th International Symposium on Organic Free Radicals, Invited Lecture (Shanghai, P. R. China, October 11, 2016)
- 7th International Forum on Homogeneous Catalysis, **Keynote Lecture** (Hefei, China, Oct. 8, 2016)
- Symposium “Frontiers in Asymmetric Catalysis”, Institute of Chemistry, Chinese Academy of Sciences, Invited Lecture (Beijing, P. R. China, September 18, 2016)
- 20th International Symposium on Homogeneous Catalysis (ISHC XX), Invited Lecture (Kyoto, July 14, 2016)

- 42th International Conference on Coordination Chemistry (ICCC-42), Invited Lecture (Brest, France, July 7, 2016)
- 8th International Symposium on Bioorganometallic Chemistry (ISBOMC16), **Plenary Lecture** (Moscow, September 4-8, 2016)
- 13th International Kyoto Conference on News Aspects of Organic Chemistry (IKCOC-13), Invited Lecture (Kyoto, November 12, 2015)
- ACS Green Chemistry and Engineering Conference, Invited Lecture (Bethesda, USA, July 15, 2015)
- Southern Dalton Meeting, University of Sussex, **Plenary Lecture** (Brighton, UK, April 20, 2015)
- 13th International Symposium for Chinese Organic Chemists (ISCOC-13) (Xiamen, P. R. China, December 21, 2014)
- 60th Anniversary Conference of the Nesmeyanov Institute for Organoelement Compounds of Russian Academy of Sciences (INEOS RAS), Invited Lecture (Moscow, Russian Federation, Sept. 9, 2014)
- 12th European Biological Inorganic Chemistry Conference (EuroBIC12), **Opening Plenary Lecture** (Zurich, Switzerland, August 24, 2014)
- Challenges in Organic Chemistry (ISACS14), Shanghai Institute of Organic Chemistry, (Shanghai, P. R. China, August 8, 2014)
- 48th ESBOC Symposium, **Plenary Lecture** (Gregynog, UK, May 17, 2014)
- 20th EuCheMS Conference on Organometallic Chemistry, Invited **“Young Plenary Lecture”** sponsored by Dalton Transactions (St Andrews, Scotland, July 1, 2013)
- ACS 245th National Meeting, ACS Symposium on Metals In Medicine, Invited Lecture (New Orleans, USA, April 7, 2013)