

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 206 peer-reviewed research publications, 25 reviews and accounts, and 6 patents or patent applications. Total citations = 15722 with 1399 citations in 2022, h-index 72 (Web of Science, all databases, December 7, 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).

RESEARCH GROUP

To date served as supervisor of overall 62 PhD students (8 at UPenn, 5 at Xiamen University and 49 at the University of Marburg, including current coworkers) and 20 postdoctoral researchers (3 at UPenn and 17 at the University of Marburg, including current coworkers). Plus a large number of Diploma, MSc and BSc students.

EXTERNAL FUNDING

Successful funding from the US National Institutes of Health, National Science Foundation (USA), Dreyfus Foundation, ACS Petroleum Research Fund, Alfred P. Sloan Foundation, Deutsche Forschungsgemeinschaft (DFG, Germany), LOEWE Initiative of the State of Hesse (Germany), and European Research Council (ERC Advanced Grant). Overall awarded funding of > 12 Mio €.

TEACHING ACTIVITIES

Since 2007 Professor – Organic Chemistry & Chemical Biology, University of Marburg, Germany (Organic Chemistry and Chemical Biology for B.Sc. and M.Sc. students)
2002 – 2007 Assistant Professor – Organic Chemistry & Bioorganic Chemistry, University of Pennsylvania, USA (Organic Chemistry for B.Sc. and Ph.D. students)

ASSOCIATIONS AND FUNCTIONS

- Associate Editor, *Chinese Journal of Chemistry* (Wiley-VCH and SIOC, CAS) (since 2021)
- Member of Advisory Committee, *SCIENCE CHINA Chemistry* (since 2019)
- Chair of Hiring Committee for Tenure Track Assistant Professorship in Organic Chemistry, Department of Chemistry, University of Marburg, Germany (2018)
- Co-organizer of Session S19 (Coordination Asymmetry), 43rd International Conference on Coordination Chemistry (ICCC 2018), Sendai, Japan (July 31, 2018)
- Member of International Advisory Board, “Coordination Asymmetry”, Japan Society for the Promotion of Science (JSPS), Grants-in-Aid for Scientific Research, Japan (2016-2021)
- Organizer of Symposium on Topics in Chemical Biology as part of a Research Cluster funded by the State of Hesse (LOEWE), Germany (100 participants, February 16, 2016)
- Coordinator of the LOEWE Research Cluster *SynChemBio* involving overall 21 Principal Investigators; LOEWE = Excellence Initiative of the State of Hesse (2014-2018)
- Member of the International Advisory Board of *European Journal of Inorganic Chemistry* (2014-2018)
- Member of Horst-Pracejus-Prize Selection Committee (Gesellschaft Deutscher Chemiker) (2014-2020, served as chair since 2018)
- Chair of Hiring Committee for Tenure Track Junior-Professorship in Chemical Biology, Department of Chemistry, University of Marburg (2012-2013)
- Director, Project Division on Kinase Inhibitors, TransMIT GmbH, Gießen, Germany (2011-2020)
- Co-chair, Fifth International Symposium on Bioorganometallic Chemistry (ISBOMC'10), Bochum, Germany (July 5-9, 2010)
- Coordinator for International Students Affairs, Department of Chemistry, University of Marburg, Germany (since 2008)
- Chair, Marburg Section of the German Chemical Society (2008-2011)
- Elected member of the Departmental Council, Department of Chemistry, University of Marburg (since 2008 with a few breaks)
- Adjunct Faculty Member, The Wistar Institute, Philadelphia, USA (2007-2013)
- Graduate Admission for Organic Division, Department of Chemistry, University of Pennsylvania, USA (2003-2007)

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)