

# Marco Körner

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## Education

- 2009 – 2013 **PhD thesis (Dr. rer. nat.)**, *Technical University of Darmstadt, Germany*, research group of Prof. Dr. Gerd Buntkowsky.  
Thesis title: “Design, Synthesis, and Application of Modular Building Blocks for Structural Investigations of Functional Peptides”
- 2004 – 2009 **Studies of chemistry (Dipl.-Chem.)**, *Friedrich Schiller University of Jena, Germany*.
- 2000 – 2003 **Training as a skilled chemical worker (Chemikant)**, *Bayer Bitterfeld GmbH, Bitterfeld, Germany*.
- 02.07.1999 **A-levels (Abitur)**, *Gymnasium Jessen, Jessen (Elster), Germany*.

## Experience

- since 01.09.2013 **Postdoctoral researcher**, *University of Iceland*, research group of Prof. Snorri Sigurdsson.
- 2009 – 2012 **Graduate assistant**, *Technical University of Darmstadt, Germany*. supervision in the lab course “Physical Chemistry”
- 2012 – 2012 **Supervision of the BSc thesis**, “*Improving the Peptide Synthesis of Triazole-Based Dipeptide-Mimics, Using Functional Model Compounds of Nickel Superoxide Dismutase*”, by BSc Velten Horn.
- 2011 – 2012 **Supervision of the academic work for the final state examination**, “*Synthese von Modellpeptiden für PHIP-verstärkte NMR*” (*synthesis of model peptides for PHIP-enhanced NMR*), by Heiko Weidler.
- 2011 – 2012 **Supervision of the BSc thesis**, “*Synthesis of specific conformers of triazole-based prolylmimetics via 1,3-dipolar cycloaddition*”, by BSc Philipp Rottmann.
- 2011 – 2011 **Supervision of the BSc thesis**, “*Synthesis and characterization of functional mutants of NiSOD-based model peptides*”, by BSc Thi Bich Tien Nguyen.
- 2007 – 2008 **Undergraduate assistant**, *Friedrich Schiller University of Jena*. Seminar “Chemistry for doctors of medicine and stomatologists”
- 2008 **Undergraduate assistant**, *Friedrich Schiller University of Jena*. Lab course “Chemistry for doctors of medicine and stomatologists”

2003 – 2004 **Skilled chemical worker (Chemikant)**, Bayer Bitterfeld GmbH, Bitterfeld, Germany.

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## Funding

2014 – 2016 **Research scholarship**, German Academic Exchange Service (DAAD), Postdoc programme.

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## Publications

1. **Marco Körner**,<sup>‡</sup> Grit Sauer,<sup>‡</sup> Andreas Heil, Daichi Nasu, Martin Empting, Daniel Tietze, Stephan Voigt, Heiko Weidler, Torsten Gutmann, Olga Avrutina, Harald Kolmar, Tomasz Ratajczyk und Gerd Buntkowsky (<sup>‡</sup> authors contributed equally), “PHIP-label: Parahydrogen-Induced Polarization in Propargylglycine-Containing Synthetic Oligopeptides”, *Chem. Commun.*, **2013**, (49), 7839–7841. doi: 10.1039/C3CC43978J
2. **Marco Tischler**,<sup>‡</sup> Daichi Nasu,<sup>‡</sup> Martin Empting,<sup>‡</sup> Stefan Schmelz, Dirk Heinz, Philipp Rottmann, Harald Kolmar, Gerd Buntkowsky, Daniel Tietze and Olga Avrutina (<sup>‡</sup> authors contributed equally), “Braces for the Peptide Backbone: Insights into Structure–Activity Relationships of Protease Inhibitor Mimics with Locked Amide Conformations”, *Angew. Chem. Int. Ed.*, **2012**, (51:15), 3708–3712. doi: 10.1002/anie.201108983
3. Daniel Tietze, Stephan Voigt, Doreen Mollenhauer, **Marco Tischler**, Diana Imhof, Torsten Gutmann, Leticia González, Oliver Ohlenschläger, Hergen Breitzke, Matthias Görlach and Gerd Buntkowsky, “Revealing the Position of the Substrate in Nickel Superoxide Dismutase: a Model Study”, *Angew. Chem. Int. Ed.*, **2011**, (50:13), 2946–2950. doi: 10.1002/anie.201005027
4. Daniel Tietze, **Marco Tischler**, Stephan Voigt, Diana Imhof, Oliver Ohlenschläger, Matthias Görlach and Gerd Buntkowsky, “Development of a Functional *cis*-Prolyl Bond Biomimetic and Mechanistic Implications for Nickel Superoxide Dismutase”, *Chem. Eur. J.*, **2010**, (16:25), 7572–7578. doi: 10.1002/chem.200903306

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## Talks

1. “Design, Synthesis, and Application of Modular Building Blocks for Structural Investigations of Functional Peptides”,  
University of Iceland, Reykjavik, 7th March 2014
2. “NMR ‘Crystallography’ of Enzyme Models”,  
Ampere NMR Summer School, Zakopane (Poland), 19th – 25th June 2011
3. “Peptide-based Models of the NiSOD”,  
Shanghai Normal University (China), 24th March 2010

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## Poster Presentations

1. “Towards Trityl-Containing Nucleic Acids for EPR Spectroscopy”,  
EUROMAR 2014, Zürich (Switzerland), 29th June – 3rd July 2014
2. “NMR ‘Crystallography’ of Enzyme Models”,  
EUROMAR 2011, Frankfurt (Germany) 21th – 25th August 2011
3. “Peptide-based Models of the NiSOD”,  
Ampere NMR School, Poznan and Wierzba (Poland), 17th – 26th June 2010