

CURRICULUM VITAE

Nora Gutsche

General Information

Name: Gutsche, Nora
Academic title: Dr. rer. nat.
Date of birth: 23.04.1984
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Current Position

Since 2009 Osnabrueck University, Department of Botany
Postdoctoral fellow (SPP1710)

Academic Education and Qualification

2009-2014 Ph.D. studies, Osnabrueck University (Department of Botany), Germany
Topic: "Functional analysis of the CC-type glutaredoxin ROXY1 and the TGA transcription factor PAN in *A. thaliana*"

2003-2009 Studies in Biology, Osnabrueck University (Diploma), Germany
Foci: Botany, Plant Physiology and Microbiology
Diploma thesis: "Characterization of the interaction of TRXh isoforms with potential target enzymes in *A. thaliana*" (Department of Plant Physiology)

2003 Gymnasium (high school grade) in Stolzenau, Germany
Graduation: Abitur

Research Experience

- Cultivation and characterization of Arabidopsis and Marchantia plants
- Genome editing techniques (TALEN and CRISPR/Cas9)
- Artificial microRNA and overexpression studies
- DNA-binding studies (redox-EMSA)
- Recombinant expression and purification of proteins from Arabidopsis and Marchantia
- Mass spectrometric analysis
- Kinetic analysis of redox proteins
- Interaction studies (Y2H and BiFC)
- In situ hybridization
- In silico analysis of plant genomes and transcriptomes

Teaching Experience

Teaching assistant, supervision of practical courses in the departments of Botany and Plant Physiology
Supervision of bachelor and master students, academic training of PhD students

Professional Development

Member:
2014-2017 **SPP1710 Dynamics of thiol-based redox switches in cellular Physiology**, Postdoctoral fellow
2011-2014 **SFB944 Physiology and dynamics of cellular microcompartments**, PhD

2009-2012 **Graduate College Osnabrück**, PhD (scholarship)

Within these programs I attended several conferences and symposia, presented my scientific work on posters and in talks, participated in technical courses and was involved in organizing meetings and workshops.

Participant:

- **Joint Research Program (DAAD) “ Marchantia – a new model system for basal land plant analyses”** Scientific exchange and technical courses (Prof. Takayuki Kochi, Kyoto University)
- **SPP1710 Summer School in Heidelberg** (SPP1710)
- **“Thiol redox proteomics hands-on Workshop”** organized and supervised by Prof. Lars Leichert (Bochum University)
- **“Visible and Influential: Self presentation and effective communication in academic disciplines”** (Zepros, Osnabrück University)
- **“PhD what’s next?”** (Zepros, Universität Osnabrück)
- **“Scientific writing and paper presentation in English”** (Zepros, Universität Osnabrück)

List of Publications

Van der Linde K, **Gutsche N**, Leffers HM, Lindermayr C, Müller B, Holtgreffe S, Scheibe R. (2011) Regulation of plant cytosolic aldolase functions by redox-modifications. *Plant Physiol Biochem.*, 49(9): 946-57.

Li S, **Gutsche N**, Zachgo S. (2011) The ROXY1 C-terminal L**LL motif is essential for the interaction with TGA transcription factors. *Plant Physiol.*, 157(4): 2056-68.

Gutsche N, Thurow C, Zachgo S, Gatz, C. (2015) Plant-specific CC-type glutaredoxins: functions in developmental processes and stress responses. *Biol. Chem.*, 396(5): 495-509.

Gutsche N and Zachgo S. (2016) The N-terminus of the floral Arabidopsis TGA transcription factor PERIANTHIA mediates redox-sensitive DNA-binding. *PLOS One*, 11(4) e0153810. doi: 10.1371/journal.pone.0153810. eCollection 2016.

Conferences

2009	Botanikertagung of the German Botanical Association in Leipzig, Germany
2010	Interdisciplinary Graduate School Osnabrück “Cell and tissue differentiation” Symposium in Berlin, Germany
2011	ESF EMBO symposium “Glutathione and related thiols in living cells“ in Sant Feliu de Guixols, Spain
2012	Amsterdam Workshop Interdisciplinary Graduate School Osnabrück in Amsterdam, Netherlands
2013	3 rd Symposium on “Physiology and dynamics of cellular microcompartments” in Utrecht, Netherlands
2014	GBM study group “Redox Biology” in combination with the 2 nd symposium of SPP1710 meeting in Heidelberg, Germany
2015	2 nd transnational redox meeting “Redox on the Rise!” in Nancy, France
2016	EMBO workshop “New model systems for early land plant evolution” in Vienna, Austria