

PERSONAL PARTICULARS

NAME Dr Eileen Kröber
ADDRESS Baumschulenweg 7A, 28213 Bremen
PLACE/DATE OF BIRTH Frankenberg, 06 November 1988
NATIONALITY German

ACADEMIC QUALIFICATIONS AND WORKING EXPERIENCE

Since 2023 **INDEPENDENT EMMY-NOETHER RESEARCH GROUP LEADER OF THE ORGANOSULFUR CYCLING GROUP AT THE MPI BREMEN, GERMANY**

09/2020-05/2023 **POSTDOCTORAL SCIENTIST
MAX PLANCK INSTITUTE FOR MARINE MICROBIOLOGY,
BREMEN, GERMANY**
- Postdoc in Prof. Dr. Nicole Dubilier's department working on marine microbial symbioses in gutless oligochaetes

03/2016-08/2020 **POSTDOCTORAL SCIENTIST
LEIBNIZ CENTRE FOR AGRICULTURAL LANDSCAPE
RESEARCH (ZALF), MÜNCHENBERG, GERMANY**
- Postdoc in Prof. Dr. Steffen Kolb's lab working on the DFG (German Research Foundation) and ANR (French National Research Agency) funded project CHLOROFILTER investigating microbial degradation of chloromethane in various environments.

02/2019-07/2020 **PROHIBITION TO EMPLOY/MATERNITY-/PARENTAL LEAVE**

02/2012-06/2016 **PH.D. IN LIFE SCIENCE
UNIVERSITY OF WARWICK, UK**
- Thesis: 'Environmental genomics and functional diversity of plant-associated microbial dimethyl-sulfide (DMS) degradation in coastal salt marshes'
- Funded by Natural Environment Research Council, German Academic Exchange Service, Richard-Winter-Stiftung
- Awarded on 20th June 2016

09/2011-02/2012 **INTERNSHIP | SÜDSACHSEN WASSER GMBH, CHEMNITZ,
GERMANY**
- Internship in the Department of Microbiology and Hygiene
- Quality assessment and toxicity tests of drinking water samples

09/2010-05/2011 **BACHELOR THESIS | TU DRESDEN AND CARL-GUSTAV-
CARUS HOSPITAL DRESDEN, GERMANY**
- Bachelor thesis in the Department of Applied Microbiology about 'Molecular biological analysis of microbial sediment biocoenosis in a drinking water reservoir' (grade 1.0).

09/2007-05/2011 **BACHELOR OF SCIENCE (BIOTECHNOLOGY)
UNIVERSITY OF APPLIED SCIENCE, LAUSITZ, GERMANY**
- Bachelor of Science awarded by the Dept. of Biotechnology on 26th May 2011

09/2009-02/2010 **INTERNSHIP | TU DELFT, THE NETHERLANDS**
- Internship at the Department of Environmental Biotechnology working on 'Sludge retention time of bacteria in aerobic granular sludge' funded by Erasmus (grade 1.0).

08/2008-09/2008 **INTERNSHIP | HOYERSWERDA HOSPITAL, GERMANY**
- Trainee

ACHIEVEMENTS - AWARDS, SCHOLARSHIPS AND NOMINATIONS**ACQUIRED FUNDS**

- 2023 **EMMY-NOETHER INDEPENDENT RESEARCH GROUP**
- Fellowship for an independent research group (~1.8 Million €)
- 2017-2020 **POSTDOC POSITION**
- Grant from Leibniz Centre for Agricultural Landscape Research e.V. (50% extension for 2.5 years; ~62.500€)
- 2015 **PRESIDENT'S FUND GRANT (SfAM)**
- To attend the Gordon Research Conference for Applied and Environmental Microbiology (~1.200€)
- 2015 **REGISTRATION SUPPORT FOR YOUNG SCIENTISTS**
- To attend the Gordon Research Conference for Applied and Environmental Microbiology (~780€)
- 2014 **SfAM SUMMER STUDENT PLACEMENT SCHOLARSHIP**
- To bring a summer student into the lab (~3.000€)
- 2013 **ONE-YEARS RESEARCH GRANT BY GERMAN ACADEMIC EXCHANGE SERVICE**
- To conduct PhD research at the University of Warwick, UK (~15.000€)
- 2012 **SCHOLARSHIP BY NATURAL ENVIRONMENTAL RESEARCH COUNCIL (NERC)**
- To conduct PhD research at the University of Warwick, UK (~77.000€)
- 2012 **SCHOLARSHIP BY RICHARD-WINTER-STIFTUNG**
- To conduct PhD research at the University of Warwick, UK (3.600€)

Total acquired funds: ~1.96 Million €

AWARDS

- 2018 **AWARDEE OF THE MENTORING PLUS PROGRAMME OF THE UNIVERSITY OF POTSDAM**
- 2013 **PRIMERDESIGN SILVER SPONSORSHIP**
- 2013 **WARWICK AWARD OF TEACHING EXCELLENCE**
- Nomination

ORGANIZATION OF WORKSHOPS (INVITED)

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- 11/2018 **'METAGENOMICS AND COMPARATIVE GENOMICS'**
- Organizer and instructor of a 4-day workshop at the University of Warwick, UK
- 04/2016 **'PROTEOMICS AND TRANSCRIPTOMICS OF MICROBIAL ISOLATES'**
- Organizer and instructor of a 4-day workshop at the University of Western Australia, Australia

PRESENTATIONS AT (INTER-) NATIONAL CONFERENCES**4 INVITED TALKS**

- 2023 UK EU C1 & BVOC SYMPOSIUM, **Talk** on ‘*Hidden eaters: How chemosynthetic symbionts thrive in organosulfur-rich environments*’ at the University of Warwick, UK
- 2018 17TH INTERNATIONAL SYMPOSIUM ON MICROBIAL ECOLOGY (ISME)
Kröber, E., Morawe, M., Chaignaud, P., Besaury, L., Vuilleumier, S., Bringel, F., Kolb, S. ‘*New microbial actors of the atmospheric chloromethane sink in soil*’, Leipzig, Germany (**P** = Poster)
- 2018 17TH INTERNATIONAL SYMPOSIUM ON MICROBIAL ECOLOGY (ISME)
Kröber, E., Spurgin, L., Wischer, D., Kumaresan, D. ‘*Comparative genomics analyses indicate differential methylated amine utilisation trait within the members of the genus Gemmobacter*’, Leipzig, Germany (**P**)
- 2018 17TH INTERNATIONAL SYMPOSIUM ON MICROBIAL ECOLOGY (ISME)
Knief, C., Maarastawi, S., Kröber, E., Frindte, K. ‘*Rice straw degradation in paddy soil managed under rice-maize crop rotation differs in bulk and the maize rhizosphere*’, Leipzig, Germany (**P**)
- 2017 ZALF SCIENCE DAY, **Invited Talk** on ‘*Microbial Consumption of Plant-derived and Climate-relevant Trace Gases*’ at Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany
- 2017 MICROBE-ASSISTED CROP PRODUCTION- OPPORTUNITIES, CHALLENGES & NEEDS (MICROPE)
Bachmann, D., Kröber, E., Kästner, B., Augustin, J., Kolb, S. ‘*Responses of the Brassica napus L. holobiont with focus on chloromethane emission under salt and temperature stress*’, Vienna, Austria (**P**)
- 2016 LANDSCAPE BIOGEOCHEMISTRY COLLOQUIUM, **Invited Talk** on ‘*Plant-associated microbial dimethylsulfide degradation in a coastal salt marsh*’ at Leibniz Centre for Agricultural Landscape Research (ZALF), Germany
- 2015 GORDON RESEARCH CONFERENCE FOR APPLIED AND ENVIRONMENTAL MICROBIOLOGY
Kröber E., Schäfer H. ‘*Plant-associated microbial dimethylsulfide degradation in a coastal salt marsh*’, South Hadley MA, US (**P**)
- 2014 MICROBIAL SEMINAR SERIES, ‘*Environmental genomics and functional diversity of plant-associated microbial dimethylsulfide degradation in coastal salt marshes*’ at the University of Warwick, UK (**T** = Talk)
- 2014 INTERNATIONAL SYMPOSIUM ON BIOLOGICAL AND ENVIRONMENTAL CHEMISTRY OF DMS(P) AND RELATED COMPOUNDS
Kröber E., Schäfer H. ‘*Environmental genomics and functional diversity of plant-associated microbial dimethylsulfide degradation in coastal salt marshes*’, Barcelona, Spain (**P**)
- 2013 MOLECULAR MICROBIAL ECOLOGY GROUP MEETING (MMEG), **Invited Talk** on ‘*Environmental genomics and functional diversity of plant-associated microbial dimethylsulfide degradation in coastal salt marshes*’, University of Essex, UK
- 2013 FEDERATION OF EUROPEAN MICROBIOLOGICAL SOCIETY (FEMS): 5th Congress of European Microbiologists.
Kröber E., Schäfer H. ‘*Environmental genomics and functional diversity of plant-associated microbial dimethylsulfide degradation in coastal salt marshes*’ Leipzig, Germany (**P**)
- 2011 SEMINAR SERIES TU DRESDEN, ‘*Molecular biological analysis of microbial community in sediment of the drinking water reservoir*’, TU Dresden, Germany (**T**)
- 2010 BIOTECHNOLOGY SEMINAR SERIES, ‘*Sludge retention time of bacteria in aerobic granular sludge*’, TU Delft, The Netherlands (**T**)

TEACHING AND ORGANISATIONAL ACTIVITIES

In 2014, I completed the course ‘Introduction to Teaching for Postgraduates in Sciences’ at the University of Warwick.

SUPERVISION OF STUDENTS

- 2021-ongoing **ADVISOR** of PhD student Grace D'Angelo at Max Planck Institute for Marine Microbiology, Bremen, Germany
- Thesis: '*Metaproteomics allows insight into carbon cycling of a symbiotic microbial community*'
- 2021-ongoing **ADVISOR** of PhD student Patric Bourceau at Max Planck Institute for Marine Microbiology, Bremen, Germany
- Thesis: '*Establishing a model system to unravel metabolic interactions in the bathymodiolin symbiosis*'
- 2017-2018 **SUPERVISION AND MENTORING** of Master student Bianka Kästner at Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany
- Thesis: '*Grassland plant species' impact on microbial chloromethane utilisers and their activity*'
- 2016-2018 **ADVISOR** of PhD student Denise Bachmann at Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany
- Thesis: '*Responses of the Brassica napus L. holobiont with focus on chloromethane emission under salt and temperature stress*'
- 2014-2015 **ADVISOR** of Master student Jess Palmer at the University of Warwick, UK
- Thesis: '*The degradation of atmospheric pollutants by phyllosphere microbiota*'
- 2014 **SUPERVISION** of SfAM summer student Chris O'Grady at the University of Warwick, UK
- 2012-2014 **SUPERVISION** of final year project students

TEACHING

- 2014 **SUPERVISION** in laboratory classes of undergraduate students in **MICROBIOLOGY** at the University of Warwick, 160 hours (16 semester periods per week (SSW))
- 2012-2013 **SUPERVISION** in laboratory classes of undergraduate students in **BIOCHEMISTRY** at the University of Warwick, 230 hours (16 semester periods per week (SSW))

ORGANISATIONAL ACTIVITIES - OUTREACH

- 2017 Member of the Organising Committee for the Open Day at the Leibniz Centre for Agricultural Landscape Research (ZALF)
- about 250 invited politicians, scientists and entrepreneurs
- <https://www.zalf.de/de/aktuelles/Seiten/Pressemitteilungen/25-Jahre-ZALF-Symposium-und-Festakt.aspx>
- <https://www.zalf.de/de/aktuelles/Seiten/ZALF/Tag-der-offenen-Tuer-Nachbericht.aspx>
- 2017 Organisation of the PhD Colloquium at the Leibniz Centre for Agricultural Landscape Research

MEMBERSHIP IN PROFESSIONAL SOCIETIES

- International Society for microbial ecology (ISME)
- Association for general and applied microbiology (VAAM)

ADDITIONAL PROFESSIONAL SERVICES

EDITOR ROLES

- Review Editor in Terrestrial Microbiology for Frontiers

PEER REVIEWING

- Microbiome
- PeerJ
- Frontiers in Microbiology
- Forests
- Recommender for Peer Community in (PCI) Microbiology

COMMITTEES

2021-2022	Member of the MPI Ombudsperson Committee
2018-2020	Head of the Committee for the Integration of Foreign Employees at the Leibniz Centre for Agricultural Landscape Research (ZALF)
2018-2020	Member of the Committees for Young Scientist and PhD student board at the Leibniz Centre for Agricultural Landscape Research (ZALF)
2018	Member of the Tenure-Track Committee at Leibniz Centre for Agricultural Landscape Research (ZALF), Müncheberg, Germany

FURTHER EDUCATION – WORKSHOPS AND COURSES

- ‘How to publish in peer-reviewed journals’, 3-day course by Tress & Tress
- ‘How to write a successful proposal’, 3-day course by Löhrmann & Borek
- Project Management, 2-day course
- Team working in a Research Environment, 3-day course
- Introduction to Teaching for Postgraduates in Sciences
- Statistics/Biometry, 10-day course
- Bioethics, 1-day workshop

ENGAGEMENT

2013-2014	Mentor for ‘Realising Opportunities’ (Collaboration of 15 leading, research-intensive universities, working together to promote fair access and social mobility of students from groups under-represented in higher education)
2012-2013	Support for students with disabilities during their laboratory classes
2011-2012	Social engagement at the ‘Chemnitzer Tafel e.V.’ (food bank)
2008-2012	Engagement and collaboration at the students journal at the University of Applied Science Lausitz

PUBLICATIONS

12 PEER-REVIEWED/ 4 CORRESPONDING-AUTHOR PUBLICATIONS/ H-INDEX: 8

PEER-REVIEWED FISRT (6) AND CORRESPONDING-AUTHOR (4) PUBLICATIONS

- 2022 **Kröber, E.***, Mankowski, A., Schäfer, H.* „Microorganisms associated with *Sporobolus anglicus*, an invasive dimethylsulfoniopropionate producing salt marsh plant, are an unrecognized sink for dimethylsulfide” **Rising Stars in Terrestrial Microbiology: 2022 in Frontiers in Microbiology** (2022). DOI: [10.3389/fmicb.2022.950460](https://doi.org/10.3389/fmicb.2022.950460) *Corresponding Author
- 2022 **Kröber, E.**, Kanukollu, S., Wende, S., Bringel, S., Kolb, S. „A putatively new family of alphaproteobacterial chloromethane degraders from a deciduous forest soil revealed by stable isotope probing and metagenomics” **Environmental Microbiome** 17.24 (2022). DOI: [10.1186/s40793-022-00416-2](https://doi.org/10.1186/s40793-022-00416-2)
- 2021 **Kröber, E.***, Wende, S., Kanukollu, S., Buchen-Tschiskale, C., Besaury, L., Keppler, F., Vuilleumier, S., Kolb, S., Bringel, F.* “¹³C-Chloromethane incubations provide evidence for novel bacterial chloromethane degraders in a living tree fern.” **Environmental Microbiology** 23.8 (2021): 4450-4465. DOI: [10.1111/1462-2920.15638](https://doi.org/10.1111/1462-2920.15638) *Corresponding Author
- 2021 **Kröber, E.***, Cunningham, M. R., Peixoto, J., Spurgin, L., Wischer, D., Kruger, R., & Kumaresan, D.* “Comparative genomics analyses indicate differential methylated amine utilization trait within members of the genus *Gemmobacter*.” **Environmental Microbiology Reports** 13.2 (2021): 195-208. DOI: [10.1111/1758-2229.12927](https://doi.org/10.1111/1758-2229.12927) *Corresponding Author
- 2019 **Kröber, E.** and Schäfer, H. “Identification of proteins and genes expressed by *Methylophaga thiooxydans* during growth on dimethylsulfide and their presence in other members of the genus.” **Frontiers in Microbiology** (2019): 1132. DOI: [10.3389/fmicb.2019.01132](https://doi.org/10.3389/fmicb.2019.01132)
- 2019 Jones, H.J., **Kröber, E.***, Stephenson, J., Mausz, M., Jameson, E., Millard, A., Purdy, K.J., Chen, Y.* “A new family of uncultivated bacteria involved in methanogenesis from the ubiquitous osmolyte glycine betaine in coastal saltmarsh sediments” **Microbiome** 7.1 (2019): 1-11. DOI: [10.1186/s40168-019-0732-4](https://doi.org/10.1186/s40168-019-0732-4) *Corresponding Author
- 2016 Lidbury*, I.D. and **Kröber*, E.**, Zhu, Y., Chen, Y., Schäfer, H. “A mechanism for bacterial transformations of DMS to DMSO: a missing link in the marine organic sulfur cycle.” **Environmental Microbiology**. 18.8 (2016): 2754-2766. DOI: [10.1111/1462-2920.13354](https://doi.org/10.1111/1462-2920.13354) *These authors contributed equally to this study

PEER-REVIEWED CO-AUTHOR PUBLICATIONS

- 2018 Chaignaud, P., Morawe, M., Besaury, L., **Kröber, E.**, Vuilleumier, S., Bringel, F., Kolb, S. “Methanol consumption drives the bacterial chloromethane sink in a forest soil” **ISME Journal** 12.11 (2018): 2681-2693. DOI: [10.1038/s41396-018-0228-4](https://doi.org/10.1038/s41396-018-0228-4)
- 2018 Maarastawi, S.A., Frindte, K., Geer, R., **Kröber, E.**, Knief, C. “Temporal dynamics and compartment specific rice straw degradation in bulk soil and the rhizosphere of maize” **Soil Biology and Biochemistry** 127 (2018): 200-212. DOI: [10.1016/j.soilbio.2018.09.028](https://doi.org/10.1016/j.soilbio.2018.09.028)
- 2018 Jäger, N., Besaury, L., **Kröber, E.**, Delort, A.-M., Greule, M., Lenhart, K., Nadalig, T., Vuilleumier, S., Amato, P., Kolb, S., Bringel, F., Keppler, F. “Chloromethane Degradation in Soils: A Combined Microbial and Two-Dimensional Stable Isotope Approach” **Journal of Environmental Quality** 47.2 (2018): 254-262. DOI: [10.2134/jeq2017.09.0358](https://doi.org/10.2134/jeq2017.09.0358)
- 2017 Morawe, M., Hoeke, H., Wissenbach, D., Lentendu, G., Wubet, T., **Kröber, E.**, Kolb, S. “Acidotolerant bacteria and fungi as a sink of methanol-derived carbon in a deciduous forest soil.” **Frontiers in Microbiology** 8 (2017): 1361. DOI: [10.3389/fmicb.2017.01361](https://doi.org/10.3389/fmicb.2017.01361)
- 2016 Winkler, M.-K.H., **Kröber, E.**, Mohn, W.M., Koch, F., Frigon, D. “Comparison of microbial populations and foaming dynamics in conventional versus membrane enhanced biological phosphorous removal systems.” **Water and Environment Journal** 30.1-2 (2016): 102-112. DOI: [10.1111/wej.12164](https://doi.org/10.1111/wej.12164)

BOOK CHAPTERS

- 2019 **Kröber, E.**, and Eyice, Ö. “Profiling of Active Microorganisms by Stable Isotope Probing-Metagenomics” published in *Stable Isotope Probing: Methods and Protocols* in *Springers: Methods in Molecular Biology*; DOI: [10.1007/978-1-4939-9721-3_12](https://doi.org/10.1007/978-1-4939-9721-3_12)
- 2019 Bringel, F, Besaury, L., Amato, P., **Kröber, E.**, Kolb, S., Keppler, F., Vuilleumier, S., Nadalig, T. “Methylotrophs and methylotroph populations for chloromethane degradation” published in *Current Issues in Molecular Biology (Methylotrophs and Methylotroph Communities)*; DOI: 10.21775/9781912530045.08