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date of birth: 10th May 1983
nationality: German

EMPLOYMENT

Since Oct 2017 **Assistant Professor** at Technical University of Denmark, Kgs. Lyngby, Denmark
2013 – 2017 **Postdoc** at Technical University of Denmark, Kgs. Lyngby, Denmark with Prof. Lone Gram including **maternity leave** (7 months): Jan 19 – Aug 17, 2015; **effective years since PhD: 6 years 8 months**
2011 – 2013 **Postdoc** at University of California, San Diego, USA with Prof. Michael Burkart
2006 Conference assistant at EUROPT(R)ODE VIII conference, Tübingen, Germany
2005 – 2006 Research assistant at Institute of Polar Ecology, Kiel, Germany
2003 – 2004 Research assistant at IfM-GEOMAR, Kiel, Germany

EDUCATION

Jan 31, 2011 **PhD in Marine Microbiology**, Jacobs University Bremen and MarMic graduate student at Max Planck Institute (MPI) for Marine Microbiology, Bremen, Germany
Dec 17, 2007 **Diploma in Biology** (master equivalent), Christian-Albrechts-Universität, Kiel, Germany and Alfred Wegener Institute for Polar and Marine Research, Bremerhaven, Germany
2006 3-month internship at DTU Aqua, Charlottenlund, Denmark
2006 Term abroad at Syddansk Universitet, Odense, Denmark

GRANTS & FELLOWSHIPS

- Travel grant of Otto Mønsted's Fonden (2016, 2,644 DKK) for EMBL workshop
- Interview round of VILLUM Young Investigator Programme (2017)
- Travel grant of the 15th International *Chlamydomonas* Conference (Potsdam, Germany) (2012, ~2,520 DKK)
- Travel grant of the Gordon Research Conference for Marine Microbes (Tilton, NH, USA) (2010, ~8,360 DKK)
- **PhD fellowship** of Jacobs University Bremen, Germany (2008 – 2010, ~267,740 DKK)

MANAGEMENT EXPERIENCE & TRAINING

- Supervision of **23 project students at undergraduate and graduate level** and **supervision of 4 BSc, 2 MSc and co-supervision of 1 PhD student** at DTU, UC San Diego and Jacobs University Bremen
- Co-management of a **technical assistant** since one year
- Current participation in DTU's Young Researcher Training Programme for elevating DTU's talents
- Training programme in project management, DTU; course in self and time management, MPI Bremen
- Oral and written reporting in two EU FP7 projects at DTU (PharmaSea and MaCuMBA)
- Assistance in section organization in DOE grant at UC San Diego
- Participation in 3 research cruises (RV Poseidon, 4 weeks, 2007; RV Alkor, 1 week, 2006; RV Littorina, 1 week, 2005)

SUPERVISION OF STUDENTS AND TEACHING EXPERIENCE

- Lecturer in “Experimental Biochemistry” and “Advanced Prokaryotic Biotechnology”, DTU 2018
- 13-week undergraduate course “Molecular Microbiology”, DTU, 2017; **course responsible**
- 3-week graduate course “Experimental Molecular Medical Microbiology”, DTU, 2017 and 2018
- **Pedagogical education in university teaching** (UDTU), DTU, Kgs. Lyngby, Denmark, 2016 – 17
- Tutorials on MarMic lectures and teaching assistant of MarMic field course, MPI Bremen, 2009 – 10
- Microbiological lab course for undergraduate students and lecturer on “Studying bacterial chemotaxis in diatom-bacteria interactions”, Jacobs University Bremen, 2008 – 09

SCIENTIFIC FOCUS AREAS

Since my Master project, my research has focused on **microbial interactions**. My education in **biological oceanography** provides me with an ecological view on scientific problems and my continuously expanding skill set in **microbiology**, **molecular biology**, **bioinformatics** and **biochemistry** allows me to tackle them from different angles. My research is driven by **basic research** questions, but I am also dedicated to translate and exploit this knowledge into **industrial applications**. In the future, my research will contribute to the vastly growing field of **microbial utilization** by providing strains, metabolic pathways and metabolites, while in parallel, elucidate their **natural function and evolution** in the environment.

COLLABORATIONS

- Ongoing funding co-applicants include Jonas Gurauskis, CSIC, Spain (material chemist); Juan M. Bolivar (chemical engineer), TU Graz, Austria; Nanna Hartmann, DTU, Denmark (ecotoxicologist); Jes Vollertsen, Aalborg University, Denmark (environmental engineer); Basak Öztürk, DSMZ, Germany (microbiologist)
- Jörg Overmann and Heike Freese at Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures, Germany (microbiologists); Sonnenschein *et al.* 2017 *IJSEM*
- Jioji Tabudravu and Marcel Jaspars at University of Aberdeen, Scotland (natural product chemists), FP7 project PharmaSea; Sonnenschein *et al.* 2017 *Tetrahedron*
- Boyke Bunk and Cathrin Sproer at Leibniz Institute DSMZ-German Collection of Microorganisms and Cell Cultures, Germany (bioinformaticians), FP7 project MaCumba; Sonnenschein *et al.* 2017 *ISME J*
- Mario López-Pérez at Universidad Miguel Hernández, Spain (bioinformatician), FP7 project MaCumba; Sonnenschein *et al.* 2017 *ISME J*
- Joris Beld at Drexel University, USA (biochemist); Sonnenschein *et al.* 2016 *J Appl Phycol*, Beld, Sonnenschein *et al.* 2014 *Nat Prod Rep*
- Member of the global Ocean Sampling Day consortium; Kopf *et al.* 2015 *GigaScience*
- Participant of European status report on marine chemical ecology; Ianora *et al.* 2011 *Mar Drugs*

REFERENCES

- Prof. Lone Gram; Technical University of Denmark, Denmark; gram@bio.dtu.dk; +45 4525 2586
- Prof. Michael Burkart; University of California, San Diego, USA; mburkart@ucsd.edu; +1 858 534 5673
- Prof. Hans-Peter Grossart; Leibniz Institute of Freshwater Ecology and Inland Fisheries, Germany; hgrossart@igb-berlin.de; +49 (0)33082 699 91
- Prof. Thomas Kiørboe, Technical University of Denmark, Denmark; tk@aqua.dtu.dk; +45 3588 3401
- Prof. Matthias Ullrich, Jacobs University Bremen, Germany; m.ullrich@jacobs-university.de; +49 (0)421 2003245

BIBLIOGRAPHY

Total number of publications: 15

All articles are peer-reviewed, including 9 first authorships, 1 last authorship and 4 corresponding authorships.

h-index: 10 (Google Scholar, <https://goo.gl/midLbc>), 9 (Web of Science), (07.06.2018)

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Most important references are marked in **green**

Underline: corresponding author, ¹: shared first authorship

PEER-REVIEWED PUBLICATIONS

1. **Sonnenschein EC**, Phippen CBW, Rasmussen SA, Bentzon-Tilia M, Nielsen KF, and Gram L (2018). Phylogenetic distribution of roseobacticides in the *Roseobacter* group and their effect on microalgae. *Environmental Microbiology Reports*, 10(3), 383-93. doi.org/10.1111/1758-2229.12649
2. **Sonnenschein EC**, Phippen CBW, Nielsen KF, Mateiu RV, Melchiorson J, Gram L, Overmann J, and Freese HM (2017). *Phaeobacter piscinae* nov. gen., a species of the *Roseobacter* group and potential aquaculture probiont. *International Journal of Systematic and Evolutionary Microbiology*, 67(11), 4559-64. doi: 10.1099/ijsem.0.002331
3. **Sonnenschein EC**¹, Stierhof M¹, Tabudravu J, Goralczyk S, Vabre FM, Pellissier L, Hanssen KØ, de la Cruz M, Diaz C, de Witte P, Copmans D, Andersen JH, Hansen E, Kristoffersen V, Tormo JR, Ebel R, Milne BF, Deng H, Gram L, Jaspars M, and Tabudravu JN (2017). Pseudochelin, a novel siderophore from *Pseudoalteromonas piscicida* S2040. *Tetrahedron*, 73, 2633-7. doi: 10.1016/j.tet.2017.03.051
4. **Sonnenschein EC**, Nielsen KF, D'Alvise P, Porsby CH, Melchiorson J, Heilmann J, Kalatzis PG, Bunk B, Sproer C, Middelboe M, and Gram L (2016). Global occurrence and heterogeneity of the *Roseobacter*-clade species *Ruegeria mobilis*. *The ISME Journal*, 11(2), 569–83. doi:10.1038/ismej.2016.111
5. Bentzon-Tilia M, **Sonnenschein EC**, and Gram L (2016). Monitoring and managing microbes in aquaculture - Towards a sustainable industry. *Microbial Biotechnology*, 9(5), 576–84. doi: 10.1111/1751-7915.12392
6. **Sonnenschein EC**, Pu Y, Beld J, and Burkart MD (2016). Phosphopantetheinylation in the green microalgae *Chlamydomonas reinhardtii*. *Journal of Applied Phycology*, 28(6), 3259–67. doi:10.1007/s10811-016-0875-7
7. Kopf A, Bicak M, Kottmann R, Schnetzer J, Kostadinov I, Lehmann K, Fernandez-Guerra A, Jeanthon C, Rahav E, Ullrich M, Wichels A, Gerdt G, Polymenakou P, Kotoulas G, Siam R, Abdallah RZ, **Sonnenschein EC et al.** (2015). The ocean sampling day consortium. *Gigascience*, 4, 27. doi: 10.1186/s13742-015-0066-5

8. Machado H, **Sonnenschein EC**, Melchiorson J, and Gram L (2015). Genome mining reveals unlocked bioactive potential of marine Gram-negative bacteria. *BMC Genomics*, 16(1), 1365. doi:10.1186/s12864-015-1365-z
9. Rasmussen BB, Nielsen KF, Machado H, Melchiorson J, Gram L, and **Sonnenschein EC** (2014). Global and phylogenetic distribution of quorum sensing signals, acyl homoserine lactones, in the family of Vibrionaceae. *Marine Drugs*, 12(11), 5527–46. doi:10.3390/md12115527
10. **Beld J¹, Sonnenschein EC¹, Vickery CR¹, Noel JP, and Burkart MD (2014). The phosphopantetheinyl transferases: catalysis of a post-translational modification crucial for life. *Natural Product Reports*, 31(1), 61–108. doi:10.1039/c3np70054b (noted as highly cited paper on Web of Science)**
11. **Sonnenschein EC, Syit DA, Grossart HP, and Ullrich MS (2012). Chemotaxis of *Marinobacter adhaerens* and its impact on attachment to the diatom *Thalassiosira weissflogii*. *Applied and Environmental Microbiology*, 78(19), 6900–7. doi:10.1128/AEM.01790-12**
12. **Kaepfel EC, Gärdes A, Seebah S, Grossart HP, and Ullrich MS (2012). *Marinobacter adhaerens* sp. nov., isolated from marine aggregates formed with the diatom *Thalassiosira weissflogii*. *International Journal of Systematic and Evolutionary Microbiology*, 62(Pt 1), 124–8. doi:10.1099/ijs.0.030189-0**
13. Ianora A, Bentley MG, Caldwell G, Casotti R, Cembella A, Engstrom-Ost J, Halsband-Lenk C, **Sonnenschein EC**, Legrande C, Llyewnn C, Pohnert G, Romana G, Miltenyte A, Pilkaityte R, Razinkovas A, Tilman U, and Vaiciute R (2011). The relevance of marine chemical ecology to plankton and ecosystem function: an emerging field. *Marine Drugs*, 9(9), 1625–48. doi:10.3390/md9091625
14. **Sonnenschein EC¹, Gärdes A¹, Seebah S, Torres-Monroy I, Grossart HP, and Ullrich MS (2011). Development of a genetic system for *Marinobacter adhaerens* HP15 involved in marine aggregate formation by interacting with diatom cells. *Journal of Microbiological Methods*, 87(2), 176–83. doi:10.1016/j.mimet.2011.08.008**
15. Gärdes A, **Kaepfel EC**, Shehzad A, Seebah S, Teeling H, Yarza P, Glockner FO, and Ullrich, MS (2010). Complete genome sequence of *Marinobacter adhaerens* type strain (HP15), a diatom-interacting marine microorganism. *Standards in Genomic Sciences*, 3(2), 97–107. doi:10.4056/sigs.922139

CONFERENCES – ORAL AND POSTER PRESENTATIONS

- Meeting of the Danish Microbial Society, poster presentation: “Correlation between pigment production and chitin degradation in marine *Pseudoalteromonas* species”, Copenhagen, Denmark (Nov 2017)
- **General assembly of the FP7 project PharmaSea, oral presentation: “Pseudochelin A, a siderophore from *Pseudoalteromonas piscicida* S2040”, Granada, Spain (March 2017)**
- EMBL workshop Modelling meets Experiment, poster presentation: “Global occurrence and heterogeneity of the *Roseobacter*-clade species *Ruegeria mobilis*”, Heidelberg, Germany (Dec 2016)

- Meeting of the Danish Microbial Society, two poster presentations: “*Roseobacter* gardening of microalgae: Phylogenetic distribution of roseobactin and their effect on microalgae” and “Impact of tropodithietic acid-producing *Phaeobacter inhibens* on eukaryote-associated microbial communities”, Copenhagen, Denmark (Nov 2016)
- [ASM Microbe, oral presentation: “Under the Sea – *Roseobacter* Gardening of Microalgae”, Boston, MA, USA \(June 2016\)](#)
- General assembly of the FP7 project PharmaSea, poster presentation: “A novel siderophore produced by a bioactive strain of *Pseudoalteromonas piscicida*”, Glasgow, Scotland (Sept 2015)
- General assembly of the FP7 project PharmaSea, oral presentation: “The search for novel bioactives from marine bacteria isolated during a global sampling trip”, Naples, Italy (Sept 2014)
- General assembly of the FP7 project MaCumba, oral presentation: “Detection of cell-to-cell signalling molecules from marine Vibrionaceae”, Cadiz, Spain (Sept 2014)
- ASM2013, General Meeting, poster presentation: “Activation of secondary metabolite pathways in microalgae”, Denver, CO, USA (May 2013)
- SD-CAB student and postdoc symposium, oral presentation: “Activation of secondary metabolite pathways in microalgae”, San Diego, CA, USA (Jan 2013)
- 15th International Conference on the Cell & Molecular Biology of *Chlamydomonas*, poster presentation: “Metabolic engineering of microalgae towards the production of secondary metabolites”, Potsdam, Germany (June 2012)
- SD-CAB Symposium 2012: Food and Fuel for the 21st century, poster presentation: “Metabolic engineering of microalgae towards the production of secondary metabolites”, San Diego, CA, USA (May 2012)
- SD-CAB student and postdoc symposium, oral presentation: “Metabolic engineering of microalgae towards crop protection in biofuel production”, San Diego, CA, USA (March 2012)
- Gordon Research Conference for Marine Microbes, poster presentation: “Chemotaxis of *Marinobacter* sp. HP15 and its role in diatom-bacteria interactions” , Tilton, NH, USA (July 2010)
- [Gordon Research Conference for Marine Natural Products, short talk and poster presentation: “Molecular and biochemical investigations on diatom-bacteria interactions”, Ventura, CA, USA \(March 2010\)](#)
- Annual Conference of the Association for General and Applied Microbiology, poster presentation: “Assessing the genetic accessibility of *Marinobacter* sp. HP15w as a model organism for diatom-bacteria interactions”, Bochum, Germany (March 2009)
- Workshop on Chemical Ecology of Plankton, oral presentation: “Biochemical and genetic investigations on diatom-bacteria interactions”, Juodkrante, Lithuania (July 2008)