

# ANNEX I

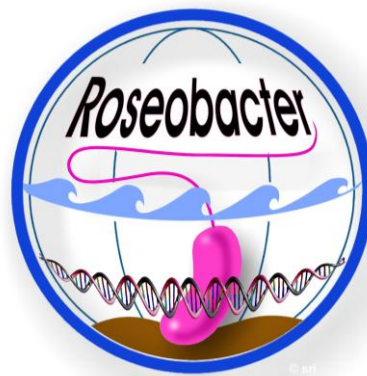
**Transregional Collaborative Research Centre (TRR 51)**

**Ecology, Physiology and Molecular Biology  
of the *Roseobacter* Group:**

**Towards a Systems Biology Understanding of a  
Globally Important Group of Marine Bacteria**

**Final Report**

**2010-2022**



Coordinating University



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## 1. Dissertations completed on topics related to the work of TRR51

The work carried out by the doctoral students during their dissertations is a core element of the research accomplishments of TRR51. They were frequently supported by Master theses and in several cases also by Bachelor theses. In addition to the formal doctoral advisors postdoctoral researchers assisted in supervising the doctoral students. Data from the doctoral theses work typically built the foundation of scientific publications in international peer-reviewed journals. During the entire funding phase of TRR51 **79 dissertations** were completed. Five further dissertations are submitted or close to submission. **39 are from female and 40 from male students.**

Every doctoral student was member of the Integrated Research Training Group and almost all students were further enrolled in the Graduate Schools at their home universities:

University of Oldenburg: OLTECH (Graduate School Science, Medicine and Technology) in the PhD program *Environmental Sciences and Biodiversity*

Technical University of Braunschweig: Grad<sup>TUBS</sup> in the PhD program *Systems Biology*.

University of Göttingen: GAUSS (Georg August University School of Science) in the PhD program *Microbiology and Biochemistry*.

Each doctoral student and her or his work benefitted greatly from the doctoral thesis committee which typically consisted of the primary advisor, another professor or habilitated researcher of TRR51, a postdoctoral scientist of TRR51 and a scientist from outside TRR51.

In the following the name of each doctoral student, year of thesis completion, title, the university at which the degree was awarded, the project in which the thesis was carried out and the name of the supervisor are listed in alphabetical order.

- 1. Bakenhus, Insa (2018)**  
Single-cell and genome based analyses of pelagic bacterioplankton groups with a focus on the *Roseobacter* group.  
University of Oldenburg. A1, Meinhard Simon
- 2. Bartling, Pascal (2019)**  
Swimming motility of Rhodobacteraceae – Phylogenomic analysis and functional characterization of the archetypal flagellar system in *Phaeobacter inhibens* DSM 17395.  
University of Braunschweig. A5, Jörn Petersen
- 3. Becker, Miriam (2021)**  
Light-dependent regulation of photosynthesis genes in *Dinoroseobacter shibae*.  
University of Braunschweig. B5, Dieter Jahn
- 4. Behringer, Maren (2019)**  
Regulatorische Netzwerke für die Adaptation von *Dinoroseobacter shibae* an Eisenmangel.  
University of Braunschweig. B5, Dieter Jahn
- 5. Berger, Martine (2012)**  
The pelagic clusters of the *Roseobacter* group: Global distribution, genome analysis and physiological characterization.  
University of Oldenburg. B2, Thorsten Brinkhoff
- 6. Beyersmann, Paul (2016)**  
Ecological Significance and Regulation of Secondary Metabolite Production in *Phaeobacter* Species.  
University of Oldenburg. B2, Thorsten Brinkhoff
- 7. Bill, Nelli (2020)**  
Special metabolic properties of the marine photoheterotrophic bacterium *Dinoroseobacter shibae* DFL 12<sup>T</sup>.  
University of Braunschweig. C3, Dietmar Schomburg
- 8. Billerbeck, Sara (2016)**  
The pelagic clusters of the *Roseobacter* group: Global distribution, genome analysis and physiological characterization.  
University of Oldenburg. A1, Meinhard Simon
- 9. Bischoff, Vera (2023)**  
New Microviridae (pro)-phages infecting marine Alphaproteobacteria.  
University of Oldenburg, B6, Cristina Moraru/Meinhard Simon.
- 10. Blaženović, Ivana (2016)**  
Metabolomics-based method development for biomarker identification  
University of Braunschweig. INF, Dieter Jahn

- 11. Breider, Sven (2017)**  
Genomic and taxonomic analyses of bacteria affiliated with the *Leisingera* - *Phaeobacter* cluster.  
University of Oldenburg. B2, Thorsten Brinkhoff
- 12. Brock, Nelson Lloyd (2013)**  
The Odor of Marine and Terrestrial Microorganisms – A Study Towards Terpene Biosynthesis and Sulfur Metabolism.  
University of Braunschweig. B3, Jeroen Dickschat
- 13. Bruns, Hilke (2017)**  
Extrazelluläre Sekundärmetabolite aus Meeresbakterien: Untersuchung von *Salinispora pacifica* und diversen Roseobakterien.  
University of Braunschweig. C2, Stefan Schulz
- 14. Buchholz, Ina (2011)**  
Quorum Sensing in *Dinoroseobacter shibae* DFL-12T and its possible role in algae symbiosis.  
University of Braunschweig. B4, Irene Wagner-Döbler
- 15. Burkhardt, Immo (2019)**  
Secondary metabolism of plant associated microbes – a survey from the plant pathogenicity of *Fusarium* spp. to the symbiosis between bacteria and algae.  
University of Braunschweig. B3, Jeroen Dickschat
- 16. Citron, Christian (2014)**  
Labelling Studies on Biosynthetic Pathways to Terpenes in Actinomycetes and Ascomycetes.  
University of Braunschweig. B3, Jeroen Dickschat
- 17. Dlugosch, Leon (2020)**  
Functional biogeography of pelagic and sediment-associated marine bacterial communities.  
University of Oldenburg, A1, Meinhard Simon.
- 18. Dogs, Marco (2016)**  
Ecological relevance of secondary metabolite production by marine surface-associated *Rhodobacteraceae*.  
University of Oldenburg. B2, Thorsten Brinkhoff
- 19. Ebert, Matthias (2017)**  
Regulatory networks of *Dinoroseobacter shibae* DFL 12T for the adaptation to changing oxygen regimes.  
University of Braunschweig. B5, Dieter Jahn

- 20. Fiebig, Anne (2015)**  
Genomic and phenotypic characterization of members of the *Roseobacter* clade (*Rhodobacteraceae*).  
University of Braunschweig. A6, Markus Göker
- 21. Hahnke, Sarah (2011)**  
Physiological characterization and molecular ecological investigation of diverse organisms of the *Roseobacter* clade isolated from the North Sea.  
University of Oldenburg, A1, Meinhard Simon.
- 22. Harig, Tim (2021)**  
Chemometrische Untersuchungen flüchtiger Verbindungen mariner *Salinispora* Bakterien.  
University of Braunschweig. C2, Stefan Schulz
- 23. Hartlich, Juliane (2021)**  
Funktionelle Genomik des bakteriellen Pathogens *Porphyromonas pagonae* und des Dinoflagellaten *Prorocentrum minimum*  
University of Braunschweig. INF, Dieter Jahn
- 24. Hensler, Michael (2015)**  
Metabolic characterisation of the nutritional versatile marine bacterium *Phaeobacter inhibens* DSM 17395 via gas chromatography - mass spectrometry.  
University of Braunschweig. C3, Dietmar Schomburg
- 25. Heyber, Steffi (2021)**  
Lichtabhängige Bakteriochlorophyllbiosynthese des marinen Bakteriums *Dinoroseobacter shibae*.  
University of Braunschweig. C5, Dieter Jahn
- 26. Heyerhoff, Benedikt (2023)**  
Ecological implications of marine viruses on host diversity, metabolism and the marine dissolved organic matter pool.  
University of Oldenburg, A2, Bert Engelen
- 27. Holste, Jonas (2023)**  
Massenspektrometrische Untersuchungen der Sekundämetabolite von Landwirbeltieren und marinen Mikroorganismen.  
University of Braunschweig. C2, Stefan Schulz
- 28. Jacobs, Jenny (2021)**  
Der Eisenstoffwechsel und seine Regulation in dem marinen Bakterium *Dinoroseobacter shibae*.  
University of Braunschweig. B5, Dieter Jahn

- 29. Kalhöfer, Daniela (2011)**  
Genome analysis and comparative genomics of host-associated bacteria of the marine *Roseobacter* clade.  
University of Oldenburg, A1, Meinhard Simon.
- 30. Kanukollu, Saranya (2016)**  
The metabolic potential and the distribution of the *Roseobacter* group in marine sediments.  
University of Oldenburg, A2, Bert Engelen
- 31. Kalvelage, Kristin (2023)**  
Nanomolar responsiveness of amino acid degradation in marine *Phaeobacter inhibens* DSM 17395  
University of Oldenburg. C1, Ralf Rabus
- 32. Kalvelage, Jana (2024)**  
Proteogenomic Insights into Subcellular Structures, Cell Biology and Photosynthesis of the Marine Dinoflagellate *Prorocentrum cordatum* CCMP1329.  
University of Oldenburg. C5, Ralf Rabus
- 33. Kirchhoff, Christian (2018)**  
Physiological response to energy limitation in *Dinoroseobacter shibae*.  
University of Oldenburg, B1, Heribert Cypionka
- 34. Klein, Johannes (2015)**  
Bioinformatics of gene regulatory networks in pathogenic bacteria.  
University of Braunschweig. INF, Dieter Jahn
- 35. Kleist, Sarah (2016)**  
Metabolic adaption processes of the marine bacterium *Dinoroseobacter shibae* DFL12<sup>T</sup> to changing environmental conditions.  
University of Braunschweig. C3, Dietmar Schomburg
- 36. Knepper, Janosch (2019)**  
Isolation and Identification of Natural Products from Bacteria and Amphibia.  
University of Braunschweig. C2, Stefan Schulz
- 37. Kossmehl, Sebastian (2014)**  
Physiologische und subzelluläre Proteomik von *Phaeobacter inhibens* DSM 17395  
University of Oldenburg. C1, Ralf Rabus
- 38. Koteska, Diana (2022)**  
Flüchtige Sekundärmetabolite aus marinen Algen und assoziierten Bakterien.  
University of Braunschweig. C2, Stefan Schulz

- 39. Laaß, Sebastian (2021)**  
Regulatorische Netzwerke des Energiestoffwechsels von *Dinoroseobacter shibae*.  
University of Braunschweig. B5, Dieter Jahn
- 40. Lauterbach, Lukas (2021)**  
Volatiles from Bacteria and Fungi – Novel Microbial Sources and Elucidation of Enzyme Mechanisms in their Biosynthesis.  
University of Bonn. B7, Jeroen Dickschat
- 41. Leinberger, Janina (2022)**  
Adaptations of bacteria from the family *Rhodobacteraceae* to diverse marine habitats.  
University of Oldenburg. B2, Thorsten Brinkhoff
- 42. Lenk, Florian (2020)**  
Distribution and ecological characteristics of members of the Roseobacter group.  
University of Göttingen. Z02, Rolf Daniel
- 43. Ludewig-Klingner, Ann-Kathrin (2017)**  
From malaria to the sparkling of the sea – Organelle and host cell evolution in alveolates (Apicomplexa, dinoflagellates, ciliates).  
University of Braunschweig. A5, Jörn Petersen
- 44. Maczka, Michael (2018)**  
Massenspektrometrische Untersuchungen zur Quantifizierung und Strukturaufklärung bioaktiver Naturstoffe.  
University of Braunschweig. C2, Stefan Schulz
- 45. Mansky, Johannes (2024)**  
Investigation of the interaction between the dinoflagellate *Prorocentrum cordatum* and the Roseobacter *Dinoroseobacter shibae* and study of outer membrane vesicle DNA cargo in bacteria.  
University of Braunschweig. B4, Irene Wagner-Döbler
- 46. Meier-Kolthoff, Jan Peter (2014)**  
Comparison of nucleotide and protein sequences for genome-based classification and identification.  
University of Braunschweig. A6, Markus Göker
- 47. Milici, Mathias (2016)**  
Bacterioplankton community composition and biogeography of the Atlantic Ocean.  
University of Braunschweig. B4, Irene Wagner-Döbler
- 48. Milke, Felix (2022)**

- Biogeography of the Atlantic and Pacific Ocean microbiome.  
University of Oldenburg, A1, Meinhard Simon.
- 49. Neumann, Alexander (2014)**  
Identifizierung von Signalstoffen und Sekundärmetaboliten aus  
Roseobakterien.  
University of Braunschweig. C2, Stefan Schulz
- 50. Noriega-Ortega, Beatriz (2018)**  
Chemodiversity of marine dissolved organic matter and marine bacterial  
exometabolomes.  
University of Oldenburg. A8, Thorsten Dittmar
- 51. Patzelt, Diana (2014)**  
Unraveling the quorum sensing circuit of *Dinoroseobacter shibae*.  
University of Braunschweig. C5, Irene Wagner-Döbler
- 52. Piekarski, Tanja (2014)**  
Etablierung methodischer Grundlagen und initiale Untersuchungen zur  
physiologischen Charakterisierung von Bakterien der *Roseobacter*-Gruppe.  
University of Braunschweig. B5, Dieter Jahn
- 53. Plötzky, Lisa (2021)**  
Die Rolle des Transkriptionsfaktors IscR aus dem marinen  
Modellorganismus *Dinoroseobacter shibae* in der Anpassung an  
Eisenmangelbedingungen.  
University of Braunschweig. B5, Dieter Jahn
- 54. Pohlner, Marion (2019)**  
Contribution of the *Roseobacter* group to the abundance, distribution and  
activity of microbial communities in marine sediments.  
University of Oldenburg, A2, Bert Engelen
- 55. Rabe, Patrick (2015)**  
Mechanistic Studies on Bacterial Terpene Synthases.  
University of Bonn. B7, Jeroen Dickschat
- 56. Reuse, Carsten (2022)**  
Metabolic characterization of *P. minimum* under different environmental  
conditions.  
University of Braunschweig. C3, Karsten Hiller
- 57. Rex, René (2012)**  
Towards a new view on metabolic networks: Automated reconstruction and  
large-scale computational analysis applied to *Dinoroseobacter shibae*.  
University of Braunschweig. C3, Dietmar Schomburg
- 58. Riclea, Ramona (2012)**

Secondary Metabolism of Marine and Soil Microorganisms.  
University of Braunschweig. B3, Jeroen Dickschat

**59. Riedel, Thomas (2012)**

Dokdonia sp. PRO95: A marine flavobacterium with two phylogenetically different rhodopsin genes in its genome.  
University of Braunschweig. B4, Irene Wagner-Döbler

**60. Roesky, Nora, maiden name Buddruhs (2018)**

Vom Genotyp zum Phänotyp – *Phaeobacter inhibens* DSM 17395 unter Berücksichtigung der extrachromosomalen Elemente: Phänotypisches MicroArray und Auswertungsmethoden.  
University of Braunschweig. A6/C3, Markus Göker, Dietmar Schomburg

**61. Roselius, Luisa (2019)**

Vergleichende Genomanalyse und mathematische Modellierung von Pathogenitäts- und Regulationsmechanismen bei Bakterien  
University of Braunschweig. INF, Dieter Jahn

**62. Ruppertsberg, Hanna Sybill (2017)**

Anpassung von *Phaeobacter inhibens* DSM 17395 an unterschiedliche N:P-Verhältnisse  
University of Oldenburg. C1, Ralf Rabus

**63. Sanchez, Selene (2023)**

Analyzing biogeographical patterns of microbial communities from the Atlantic Ocean and the characterization of the microbial community and toxicity from the dinoflagellate *Prorocentrum cordatum*.  
University of Braunschweig. B4, Irene Wagner-Döbler

**64. Schlawis, Christian (2020)**

Infrarotspektroskopie von Naturstoffen.  
University of Braunschweig. C2, Stefan Schulz

**65. Soora, Maya (2015)**

Role of light in the survival of *Dinoroseobacter shibae* during starvation.  
University of Oldenburg, B1, Heribert Cypionka

**66. Srinivas, Sujatha (2023)**

Secondary metabolites in microbial interactions: A study using *Roseobacteraceae* strains and the diatom *Thalassiosira rotula*.  
University of Oldenburg, B2, Thorsten Brinkhoff

**67. Sultana, Sabiha (2025)**

Biotic and chemical interactions between B-vitamin prototrophic and auxotrophic microorganisms in the marine environment.  
University of Oldenburg, A8, Meinhard Simon

- 68. Tebbe, Dennis (2023)**  
Molecular ecology and trace-gas production in intertidal sediments.  
University of Oldenburg, A2, Bert Engelen
- 69. Thole, Sebastian (2012)**  
Comparative and functional genome analysis of two closely related *Phaeobacter gallaeciensis* strains and other host-associated *Roseobacter* clade members.  
University of Oldenburg, B2, Thorsten Brinkhoff
- 70. Tomasch, Jürgen (2011)**  
Experimentelle und bioinformatische Analyse der aeroben anoxygenen Photosynthese in dem photoheterotrophen Meeresbakterium *Dinoroseobacter shibae* DFL12T.  
University of Braunschweig. B4, Irene Wagner-Döbler
- 71. Tran Quoc, Den (2023)**  
Colonization patterns of members of the *Roseobacter* group on pelagic diatoms.  
University of Oldenburg, A1, Meinhard Simon.
- 72. Vollmers, John Felix (2013)**  
Molekularbiologische Charakterisierung und vergleichende Genomik von ausgewählten Vertretern mariner *Roseobacter*-Stämme.  
University of Göttingen. Z02, Rolf Daniel
- 73. Wang, Hui (2014)**  
Cell-cell communication in the marine *Roseobacter* species *Dinoroseobacter shibae*.  
University of Braunschweig. B4, Irene Wagner-Döbler
- 74. Wegmann, Katharina, maiden name Drüppel (2014)**  
Proteomic analyses of amino acid and carbohydrate degradation pathways in *Phaeobacter inhibens* DSM 17395.  
University of Oldenburg. C1, Ralf Rabus
- 75. Weiten, Arne (2022)**  
Regulation und Ansprechempfindlichkeit des Kohlenhydratabbaus und -transports im marinen Bakterium *Phaeobacter inhibens* DSM 17395  
University of Oldenburg. C1, Ralf Rabus
- 76. Wemheuer, Bernd (2014)**  
Diversity and ecology of the 6 clade and other marine microbes as revealed by metagenomic and metatranscriptomic approaches.  
University of Göttingen. Z02, Rolf Daniel
- 77. Wichmann, Heidi (2015)**

Auswirkungen der marinen Naturstoffe Tropodithiätsäure und Dimethylsulphoniopropionat auf neuronale und oligodendrogliale Zellen sowie *Caenorhabditis elegans*.  
University of Oldenburg, B2, Thorsten Brinkhoff

**78. Wienhausen, Gerrit (2018)**

Linking the exometabolome of selected organisms of the *Roseobacter* group to marine dissolved organic matter – a microbiological perspective.  
University of Oldenburg, A8, Meinhard Simon.

**79. Will, Sabine Eva (2018)**

Experimental and theoretical analyses of the metabolic role of the 262-kb plasmid in the context of the endogenously produced antibiotic tropodithietic acid in *Phaeobacter inhibens* DSM 17395.  
University of Braunschweig. C3, Dietmar Schomburg

**80. Wolter, Laura Amanda (2019)**

Adaptations, chemical communication and chemotaxis in *Rhodobacteraceae* associated with surfaces in coastal habitats.  
University of Oldenburg. B2, Thorsten Brinkhoff

**81. Wünsch, Daniel (2018)**

Growth physiology of the marine bacterium *Phaeobacter inhibens* DSM 17395  
University of Oldenburg. C1, Ralf Rabus

**82. Ziesche, Lisa (2019)**

Marine Rhodobacteraceae bacteria as producers of structurally diverse signalling compounds.  
University of Braunschweig. C2, Stefan Schulz

**83. Zucker, Falk (2022)**

New Microviridae (pro)-phages infecting marine Alphaproteobacteria.  
University of Oldenburg, B6, Meinhard Simon/Cristina Moraru.

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## 2. Seminar talks organized by TRR51

### Funding phase 2010-2013

Date	Name	Home institution	Location
13.04.10	Bernhard Schink	Uni Konstanz, Konstanz	GÖ
18.06.10	Torsten Thomas	Univ New South Wales, Sydney, AUS	OL
20.10.10	Susanne Prado	Uni Santiago de Compostela, ES	OL
03.11.10	Hans-P Grossart	IBG Neu Globsov	OL
17.11.10	Daniel Herlemann	IOW Warnemünde	OL
01.12.10	Kai-U Hinrichs	MARUM Bremen	OL
15.12.10	Mirko Lunau	AWI Bremerhaven	OL
12.01.11	Claudia Dziallas	IGB Neu Globsov	OL
25.01.11	Karl-Erich Jaeger	Uni Düsseldorf	GÖ
26.01.11	Martin Allgaier	IGB Neu Globsov	OL
09.02.11	Kornelia Smalla	JKI Braunschweig	OL
10.02.11	Lone Gram	TU Denmark, Lyngby	OL
15.02.11	Annelie Wendeberg	UFZ, Halle	GÖ
10.05.11	Wolfgang R. Hess	Univ Freiburg	GÖ
15.06.11	Andreas Kappler	Uni Tübingen	OL
05.07.11	Uwe Sauer	ETH Zürich, Zürich	GÖ
13.07.11	Jens Kallmeyer	Uni Potsdam	OL
15.09.11	Thomas Schweder	Uni Greifswald	BS
28.09.- 28.10.11	Sisse Porsby	TU Denmark, Lyngby, DK	OL
25.10.11	Michal Sharon	Weizmann Institute, ISR	GÖ
02.11.11	Markus Weinbauer	Lab. d'Océanographie de Villefranche, FR	OL
11.11.11	Michael Pester	Uni Wien, AT	OL
23.11.11	Stuart Wakeham	Skidaway Inst of Oceanogr, Savannah, USA	OL
30.11.11	Hanno Teeling	MPI Bremen	OL
30.11.11	Andreas Teske	Univ N-Carolina, Chapel Hill, USA	OL
23.11.11	Carol Arnosti	Univ N-Carolina, Chapel Hill, USA	OL
06.12.11	Andrew Johnston	Univ East Anglia, UK	GÖ
16.12.11	Karsten Hiller	University Luxembourg	BS
14.12.11	Ivette Salka	IGB Neu Globsov	OL
25.01.12	Lorenz Adrian	UFZ Leipzig	OL
03.07.12	Volker Behrends	Imperial College London	BS
10.07.12	Katharina Riedel	Uni Greifswald	GÖ
11.07.12.	Florin Musat	MPI Bremen	OL
27.08.12	Christoph Sensen	University of Calgary	BS
05.09.12	Sijun Huang	Institute of Oceanology, Guangzhou, China	OL
19.09.12	Feng Chen	Univ Baltimore, Baltimore, USA	OL
29.08.12	Chris Gulvik	Univ Tennessee, Knoxville, USA	OL
23.10.12	Uri Gophna	Tel Aviv Univ	GÖ
31.10.12	Anne Schwedt	MPI Bremen	OL
28.11.12	Martin Könneke	MARUM Bremen	OL
12.12.12	Andreas Schramm	Univ Aarhus, DK	OL
29.12.12	Markus Weinbauer	Lab. d'Océanographie de Villefranche, FR	OL
09.01.13	Richard Hahnke	MPI Bremen	OL

16.01.13	Hans Røy	Univ Aarhus, DK	OL
06.02.13	Marc Mussmann	MPI Bremen	OL
10.04.13	Martin Wahl	GEOMAR, Kiel	OL
12.04.13	Pieter Visscher	Univ Connecticut, USA	OL
08.05.13	Gerhard Kattner	AWI Bremerhaven	OL
15.05.13	Marco Blöthe	BGR Hannover	OL
29.05.13	Bo Thamdrup	Uni South Denmark, DK	OL
25.03.13	Roland Wohlgemuth	Sigma Aldrich Basel	BS
03.07.13	Feng Chen	Univ Baltimore, Baltimore, USA	OL
23.10.13	Marwan Majzoub	Univ New South Wales, Sydney, Australia	OL

### Funding phase 2014-2017

Date	Name	Home institution	Location
30.04.2014	Bernd Wemheuer	Univ, Göttingen	OL
08.05.2014	Mary Ann Moran	Univ. of Georgia	OL
14.05.2014	Marc Mussmann	MPI, Bremen	OL
28.05.2014	Stefan Krause	GEOMAR, Kiel	OL
12.06.2014	Carl-Eric Wegener	MPI, Marburg	OL
09.07.2014	Till Schäberle	Univ. Bonn	OL
23.07.2014	Danny Ionescu	MPI, Bremen	OL
12.11.2014	Greta Reintjes	MPI, Bremen	OL
26.11.2014	Andreas Teske	Univ. N-Carolina, Chapel Hill, USA	OL
10.12.2014	Johannes Holert	Univ. Münster	OL
21.01.2015	Jörn Petersen	DSMZ Braunschweig	OL
04.02.2015	Nicole Aberle-Malzahn	AWI Bremerhaven	OL
15.04.2015	Christian Jogler	DSMZ, Braunschweig	OL
29.04.2015	Joachim Wink	HZI, Braunschweig	OL
13.05.2015	Lorenz Adrian	UFZ Leipzig	OL
27.05.2015	Mathias Middleboe	Univ. Copenhagen, DK	OL
10.06.2015	Florence Schubotz	Univ. Bremen	OL
24.06.2015	Katarina Ettwig	Univ. Nijmegen, NL	OL
08.07.2015	Ryan Paerl	Univ. Copenhagen, DK	OL
14.10.2015	Verena Salmann	ICBM	OL
28.10.2015	Niculina Musat	UFZ, Leipzig	OL
11.11.2015	Michael Koblizek	Institute of Microbiology CAS, Trebon, Czech Republic	BS
11.11.2015	Michaela Salcher	Institute of Hydrobiology, CAS, Budejovice, Czech Republic	OL
25.11.2015	Kate Duncan	Scottish Marine Institute	OL
09.12.2015	Sarahi Garcia	Univ. of Uppsala	OL
13.01.2016	Andreas Teske	Univ. N-Carolina, Chapel Hill, USA	OL
27.01.2016	Amelia Rotaru	Univ. of Aarhus	OL
06.04.2016	Sara Kleindienst	Univ. of Tübingen	OL
20.04.2016	Carol Arnosti	Univ. N-Carolina, USA	OL
18.05.2016	Tim Engelhardt	ICBM Oldenburg	OL
01.06.2016	Nkacheh Atenchong	Hannover Medical School	OL
15.06.2016	Jens Harder	MPI, Bremen	OL
26.06.2016	Erhard Bremer	Univ. Marburg	OL

29.06.2016	Hanna Koch	ICBM, Oldenburg	OL
26.10.2016	Rebecca Case	Univ. of Alberta, Canada	OL
02.11.2016	Florin Musat	HZU, Leipzig	OL
16.11.2016	Stefan Braun	Univ. Aarhus	OL
30.11.2016	Burak Avci	MPI Bremen	OL
14.12.2016	Alexa Garin-Fernandez	AWI Helgoland	OL
11.01.2017	Ulrich Nübel	DSMZ, Braunschweig	OL
25.01.2017	Janin Sameith	BAM, Berlin	OL
05.04.2017	Rainer Meckenstock	Univ. Duisburg-Essen	OL
03.05.2017	Tilman Harder	Univ. Bremen	OL
17.05.2017	Brandi Reese	Texas A&M University, Corpus Christi, USA	OL
31.05.2017	Alexander Steinbüchel	Univ. Münster	OL
14.06.2017	Peter Schönheit	Univ. Kiel	OL
28.06.2017	Cornelia Welte	Radboud Univ. Nijmegen, NL	OL

### Funding phase 2017-2022

Date	Name	Home institution	Location
18.10.2017	Matthias Wietz	ICBM	OL
15.11.2017	Monika Ogerin	Univ. of Madrid	OL
29.11.2017	Peter Schönheit	Univ Kiel	OL
11.12.2017	Irene Wagner-Döbler	HZI, Braunschweig	OL
10.01.2018	Verena Heuer	MARUM, Bremen	OL
24.01.2018	Antje Boetius	AWI, MPI Bremen	OL
04.04.2018	Sina Schorn	MPI Bremen	OL
18.04.2018	François Thomas	Roscoff Marine Station, France	OL
02.05.2018	Matthias Kellermann	ICBM	OL
16.05.2018	Jörg Overmann	DSMZ Braunschweig	OL
30.05.2018	Martin Könneke	MARUM, Bremen	OL
13.06.2018	Christian Voolstra	KAUST, Saudi Arabia	OL
27.06.2018	Henrik Sass	Univ Cardiff, UK	
17.10.2018	Bernhard Fuchs	MPI Bremen	OL
14.11.2018	Karin Holmfeldt	Univ Kalmar, Sweden	OL
28.11.2018	Georg Pohnert	Univ Jena	OL
12.12.2018	Julian Moennichs	Univ Bremen	OL
09.01.2019	Alexander Probst	Univ Essen	OL
23.01.2019	Jan Tebben	AWI, Bremerhaven	OL
29.05.2019	Boyke Bunk	DSMZ Braunschweig	OL
12.06.2019	Alex Friedrich	Univ Groningen	OL
26.06.2019	Barbara Beyer	Univ Vienna	OL
03.07.2019	Shinichi Sunagawa	ETH Zürich	OL
10.07.2019	Hendrik Schäfer	Univ Warwick	OL
16.10.2019	Stefan Dyksma	Hochschule Emden-Leer	OL

13.11.2019	Jacquelein Hollensteiner	Univ Göttingen	OL
27.11.2019	Heiko Liesegang	Univ Göttingen	OL
11.12.2019	Helmut Hillebrand	HIFM, OL	OL
22.01.2020	John Paul Balmoten	Univ North Carolina, Chapel Hill, USA	OL
28.10.2020	Karen Lloyd	Univ Tennessee, USA	OL online
11.11.2020	Lucas Paoli	ETH Zürich	OL online
25.11.2020	Jesse McNichol	Univ Southern California, USA	OL online
09.12.2020	Dini Adyasari	ZMT Bremen	OL online
20.01.2021	Donald Pan	Florida State Uni, USA	OL online
03.02.2021	Federico Baltar	Univ Vienna	OL online
21.04.2021	Heribert Cypionka	ICBM	OL online
05.05.2021	Sabrina Beckmann	Oklahoma stae Univ, USA	OL online
19.05.2021	Lasse Riemann	Univ Copenhagen	OL online
02.06.2021	Thomas Ben Francis	MPI Bremen	OL online
16.06.2021	Scott Gifford	Univ North Carolina Chapel Hill, USA	OL online
30.06.2021	Daniel de Corte	ICBM OL	OL hybrid
17.11.2021	Christian Kost	Univ Osnabrück	OL hybrid
01.12.2021	Beate Kraft	Univ Odense, Denmark	OL hybrid
15.12.2021	Haiwei Luo	Chinese Univ Hong Kong	OL hybrid
12.01.2022	Yanting Liu	ICBM OL	OL hybrid
26.01.2022	Elisabeth Härttig	TUBS	OL hybrid
20.04.2022	Matthias Wietz	AWI Bremerhaven	OL hybrid
04.05.2022	Ivan Berg	Univ Münster	OL hybrid
11.05.2022	Muat Eren	HIFMB OL	OL hybrid
18.05.2022	Gunter Wegener	MARUM Bremen	OL hybrid
01.06.2022	Christian Zerfaß	Univ Jena	OL hybrid
15.06.2022	Taylor Priest	MPI Bremen	OL hybrid
29.06.2022	Ashley Isaac	New York Univ Abu Dhabi	OL hybrid
13.07.2022	Susanne Erdmann	MPI Bremen	OL hybrid

### 3. Conferences and events organized by TRR51

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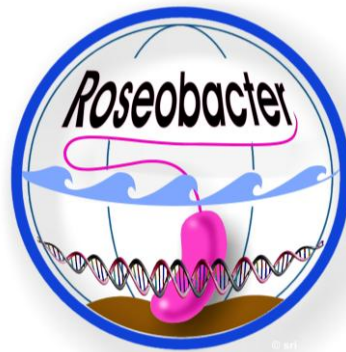
Transregional Collaborative Research Center (TRR 51)

Ecology, Physiology and Molecular Biology of the  
Roseobacter clade:

Towards a Systems Biology Understanding of a Globally  
Important Clade of Marine Bacteria

Kick-off Symposium 13 – 15 June 2010

Hanse Institute for Advanced Studies, Delmenhorst,  
Germany



Funded by



## Program

### Sunday, 13 June

18:00 hours Informal get together of the participants

### Monday, 14 June

09:00-09:25 Welcome and Introduction

Jürgen Rullkoetter, Director of ICBM

Meinhard Simon:

Short overview of TRR 51

### **Session 1: Ecology and Biogeography** (chair: Meinhard Simon)

09:25-10:10 Jed Fuhrman, Joshua Steele:

Roseobacters in the context of the broader microbial community

10:10-10:55 Alison Buchan:

*Roseobacter* biogeography: Using Q-PCR to examine distributions of phylotypes poorly represented in culture

10:55 11:25 Coffee break

10:25-11:30 Reto Weiler, rector of HWK: Welcome address

11:30-12:00 Matthias Labrenz:

Diversity and distribution of *Roseobacter* clade bacteria in the Baltic Sea and East Atlantic Ocean

12:00-12:20 Sarah Hahnke, Helge-Ansgar Giebel, Martin Sperling, Helena Osterholz, Meinhard Simon, Thorsten Brinkhoff:

Physiology and biogeography of phytoplankton-associated roseobacters

12:20-12:40 Helge-Ansgar Giebel, Daniela Kalhoefer, Sonja Voget, Thorsten Brinkhoff, Meinhard Simon:

The *Roseobacter* RCA cluster – its occurrence, diversity and potential significance

12:40-13:00 Judith Lucas, Heribert Cypionka, Bert Engelen:

Exploring the *Roseobacter* clade in marine sediments

13:00-14:20 Lunch break

**Session 2 Photoheterotrophy and stress response**  
**(chair: Heribert Cypionka)**

14:20-15:05 Michal Koblížek, Vladimíra Moulisová, Ekaterina Boldareva, Miroslav Oborník Paul G. Falkowski:

Regressive evolution of photosynthesis in marine roseobacters

15:05-15:35 Gabriele Klug:

The role of small non-coding RNAs in the oxidative stress response of anaerobic photosynthetic bacteria

15:35-16:05 Erhard Bremer:

Ectoines: effective microbial stress protectants and useful nutrients

16:05-16:30 Coffee break

16:30-16:50 Isam Haddad, Dieter Jahn, Richard Münch:

Dynamic chlorophyll measurement in *Dinoroseobacter shibae*

16:50-17:10 Jürgen Tomasch, Regina Gohl , Boyke Bunk, Richard Münch, Irene Wagner-Döbler:

Transcriptional response of the photoheterotrophic marine bacterium *Dinoroseobacter shibae* to light exposure

17:10-17:30 Ekaterina Boldareva, Michal Koblížek:

How did photosynthetic bacteria of Rhodobacterales adapt to the aerobic environment?

**Session 3**

**Proteomics, Metabolomics and Fluxomics with Model Organisms**  
**(chair: Dieter Jahn)**

17:30-17:50 Hajo Zech, Lars Wöhlbrand, Sebastian Thole, Kerstin Schreiber, Stefan Schulz, Dietmar Schomburg, Ralf Rabus:

Towards systems biology with *Phaeobacter gallaeciensis*, a member of the *Roseobacter*-clade

17:50-18:10 Kerstin Schreiber, René Rex, Dietmar Schomburg:

Metabolome analysis and modelling of the metabolism of *Dinoroseobacter shibae* and *Phaeobacter gallaeciensis*

18:10-18:30 Christoph Bolten, Ann-Kathrin Bartsch, Judith Becker, Christoph Wittmann:

Metabolic network analysis of the *Roseobacter* clade: Pathways and pathway fluxes in *Dinoroseobacter shibae* and *Phaeobacter gallaeciensis*

19:00 Symposium Banquet

## Tuesday, 15 June

### Session 4 Interactions of roseobacters with other organisms (chair: Irene Wagner-Döbler)

09:00-09:45 Torsten Thomas

Climate change, marine diseases and Roseobacters - the bleaching disease of the marine macro-alga *Delisea pulchra*

09:45-10:30 Feng Cheng:

Phage and phage like structures associated with roseobacters: case studies based on four marine roseobacters

10:30-10:50 Ina Buchholz, Regina Gohl, Irene Wagner-Döbler:

The production of autoinducer signals of *D. shibae* DFL-12<sup>T</sup> during cocultivation with its algal host

10:50-11:20 Coffee break

### Session 5 Phylogenomics (chair: Jed Fuhrman)

11:20-11:40 Carmen Scheuner, Markus Göker, Hans-Peter Klenk:

En route to a genome-based phylogeny of the *Roseobacter* clade?

11:40-12:00 Sonja Voget, John Vollmers, Thorsten Brinkhoff, Meinhard Simon, Rolf Daniel:

Poles apart: genome characteristics of *Octadecabacter arcticus* and *antarcticus* and first insights to Candidatus *Planktomarina temperata*

12:00-12:20 Jörn Petersen:

The intriguing abundance of plasmids in the *Roseobacter* clade - A novel approach for their classification

12:20-14:00 Lunch break

**Session 6 Genetics and physiology of organic sulfur compounds  
(chair Stefan Schulz)**

14:00-14:45 Andrew Johnston:

How marine bacteria make dimethyl sulfide – a lesson in genetic, biochemical and functional diversity

14:45-15:05 Nelson L Brock, Jeroen S Dickschat:

Pathways and substrate specificity of DMSP catabolism in marine bacteria of the *Roseobacter* clade

15:05-15:25 Martine Berger, Heiko Liesegang, Meinhard Simon, Thorsten Brinkhoff:

Enzyme with homology to archaeal indolepyruvate oxidoreductase (IOR) is involved in tropodithietic acid (TDA) production and phenylalanine metabolism of *Phaeobacter gallaeciensis*

15:25-16:00 Coffee break

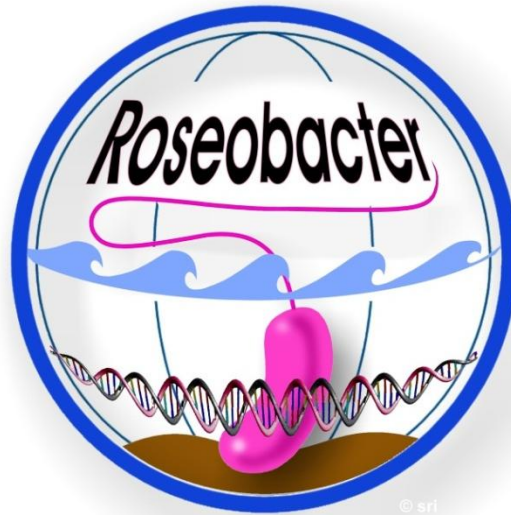
16:00-17:00 Final Discussion and Conclusion

**17:00 End of the Symposium**

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



## 1. Status Seminar

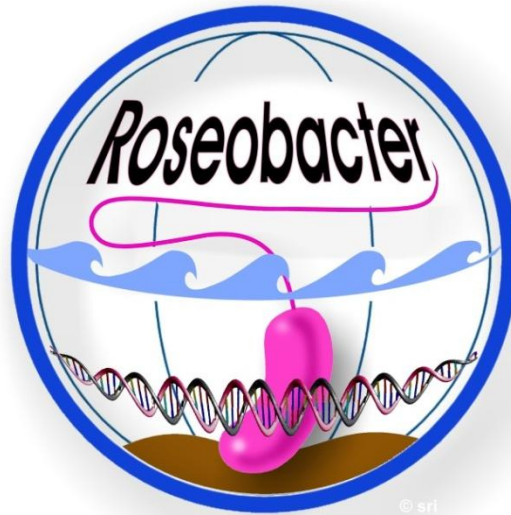
- Date:** 21 October 2010  
**Time:** 11 a.m. – 4 p.m.  
**Venue:** Helmholtz Zentrum für Infektionsforschung (HZI),  
Braunschweig;  
Forum  
**Organiser:** M. Simon (ICBM, Oldenburg),  
I. Wagner-Döbler (HZI, Braunschweig)  
**Purpose:** Status and future plans of project area A  
Discussion of Plenary assembly (Vollversammlung)  
**Contact:** M. Simon ([simon@icbm.de](mailto:simon@icbm.de)),  
B. Junge ([birte.junge@uni-oldenburg.de](mailto:birte.junge@uni-oldenburg.de))  
(ICBM, Oldenburg)

## Program

Time	Subject	Speaker/Chair
11:00-11:15	<b>Welcome and Introduction</b>	M. Simon, I. Wagner-Döbler
11:15-15:45 (30 min each)  (Lunch and coffee break included)	<p>Project area A: Ecology &amp; Evolution</p> <p>A1 Ökologische Signifikanz, Biogeographie und Physiologie der Roseobacter-Gruppe in pelagischen Systemen</p> <p>A2 Das metabolische Potential und die Verbreitung der Roseobacter-Gruppe in marinen Sedimenten</p> <p>A3 Bewertung und Erschließung des metabolischen Potentials und molekulare Charakterisierung unkultivierter Mitglieder der Roseobacter-Gruppe</p> <p>A5 Evolution und Bedeutung von Plasmiden in der Roseobacter-Gruppe</p> <p>A6 Phylogenomik und funktionale Genomik der Roseobacter-Gruppe</p> <p>- Fahrt mit Schiff Heincke: Zusammenfassung der Ergebnisse</p> <p>- Planung der zukünftigen Fahrten</p>	
15:45-16:15	Plenary assembly of TRR 51	M. Simon
16:15-16:30	Conclusions of seminar	M. Simon
16:30	End of seminar	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:  
Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



## **2<sup>nd</sup> Status Seminar**

### ***Final Agenda***

**Date:** 10 February 2011  
**Time:** 11:00 am – 4:30 pm  
**Venue:** Carl von Ossietzky University of Oldenburg  
Campus Haarentor  
Ammerländer Heerstraße 114-118  
26129 Oldenburg  
Bibliothekssaal  
**Organiser:** M. Simon (ICBM, Oldenburg)

**Purpose:** - Status and future plans of project area B  
- Discussion of Plenary assembly (Vollversammlung)  
**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
B. Junge ([birte.junge@uni-oldenburg.de](mailto:birte.junge@uni-oldenburg.de)) (ICBM,  
Oldenburg)

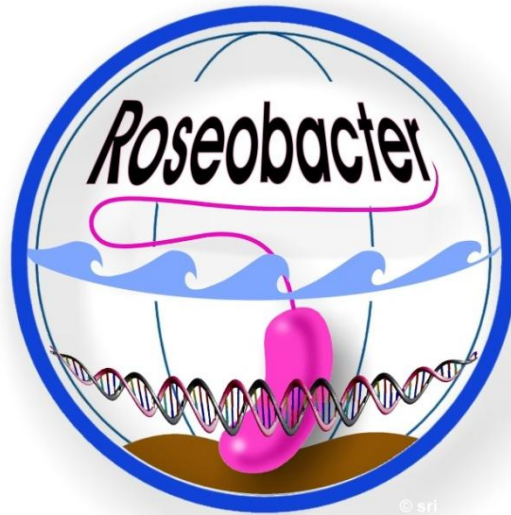
## Programme

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
11:00-11:15	<b>Welcome and Introduction</b>	M. Simon
11:15-12:00	<b>Lone Gram</b>	
	<b>Presentation and Discussion of Project area B</b>	
12:00-12:30	<b>B1</b> Physiological response to energy limitation in the <i>Roseobacter</i> clade	
12:30-13:00	<b>B2</b> Ecological significance of secondary metabolite production by members of the <i>Roseobacter</i> clade	
13:00-13:45	<b>Lunch with ART exhibition</b>	
13:45-14:15	<b>B3</b> Biosynthetic pathways to secondary metabolites of the <i>Roseobacter</i> clade	
14:15-14:45	<b>B4</b> Cell-cell communication of bacteria of the <i>Roseobacter</i> clade with other bacteria and algae	
14:45-15:15	<b>B5</b> Regulatory networks of the <i>Dinoroseobacter shibae</i> energy metabolism	
15:15-15:30	<b>Coffee break</b>	
15:30-16:15	<b>Plenary assembly of TRR 51</b>	M. Simon
	- Others:	
	Report of Research Training Group	B. Junge
16:15-16:30	<b>Conclusions of seminar</b>	M. Simon

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



### **3<sup>rd</sup> Status Seminar**

#### ***Final Agenda***

**Date:** 16-17 May 2011  
**Start:** 15:00  
**Venue:** Hanse Institute for Advanced Study  
Lemkuhlenbusch 4  
27753 Delmenhorst  
**Organiser:** M. Simon (ICBM, Oldenburg)

**Purpose:** - Status and future plans of project area C  
- Discussion of Plenary assembly

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
B. Junge ([birte.junge@uni-oldenburg.de](mailto:birte.junge@uni-oldenburg.de)) (ICBM,  
Oldenburg)

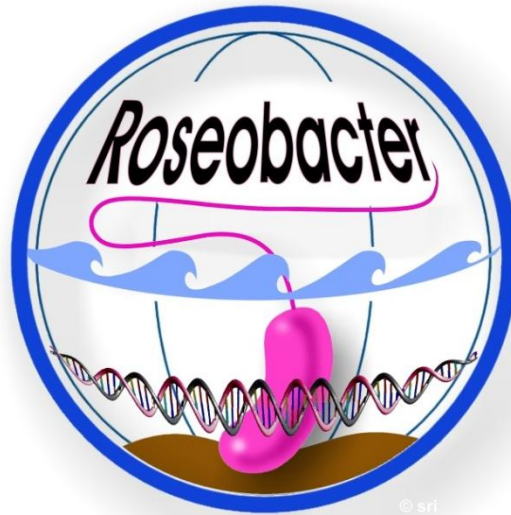
## Programme

<b>16 May 2011</b> Monday	<b>Time</b>	<b>Subject</b>	<b>Speaker/Chair</b>
	15:00-15:15	<b>Welcome and Introduction</b>	M. Simon
	15:15-16:15	Introduction in design of website (PhD students)	R. Münch
	16:15-18:00	Informal get together of all participants and/or small group meetings	
	18:00-19:00	<b>Dinner</b>	
	19:00 hours	...cont. informal get together	
<b>17 May 2011</b> Tuesday	<b>Time</b>	<b>Subject</b>	<b>Speaker/Chair</b>
	08:30-08:45	<b>Introduction</b>	M. Simon
	<b>Presentation and Discussion of Project area C</b>		
	08:45-09:15	<b>C1</b> Adaptation of metabolic and cellular networks to changing nutrient conditions in <i>Phaeobacter gallaeciensis</i> and <i>Dinoroseobacter shibae</i>	K. Drüppel, S. Koßmehl, H. Zech
	09:15-09:45	<b>C2</b> Metabolic profiling and extracellular signalling compounds of <i>Dinoroseobacter shibae</i> and other members of the <i>Roseobacter</i> clade	A. Neumann
	09:45-10:30	<b>C3</b> Metabolome analysis and modelling of the metabolism of <i>Dinoroseobacter shibae</i> and <i>Phaeobacter gallaeciensis</i>	N. Bill, M. Hensler, R. Rex
	10:30-11:00	<b>Coffee break</b>	
	11:00-11:30	<b>C4</b> Metabolic network analysis of the <i>Roseobacter</i> clade: Pathways and pathway fluxes in <i>Dinoroseobacter shibae</i> , <i>Phaeobacter gallaeciensis</i> and other members	A. Bartsch, A. Klingner
	11:30-12:00	<b>C5</b> Systems biology of <i>Dinoroseobacter shibae</i> 's environmental adaptation	H. Wang
	12:00-14:00	<b>Lunch and time for informal meetings</b>	
	14:00-15:00	<b>Ad-hoc progress reports from Project areas A and B</b>	D. Jahn
	15:00-16:00	<b>Plenary assembly of TRR 51</b> - Overview on upcoming activities in 2011 - Others - Report of Research Training Group	M. Simon T. Piekarski
	16:00	<b>Conclusions of seminar</b>	M. Simon

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



**4<sup>th</sup> Status Seminar**

***Final Agenda***

**Date:** 15 September 2011  
**Time:** 10:45 h – 17:30 h  
**Venue:** Helmholtz Center for Infection Research  
Forum  
Inhoffenstr 7  
38124 Braunschweig  
**Organiser:** M. Simon (ICBM, Oldenburg)

**Topic:** - Genomics of the *Roseobacter* clade  
- Plenary assembly (Vollversammlung)

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
B. Junge ([birte.junge@uni-oldenburg.de](mailto:birte.junge@uni-oldenburg.de)) (ICBM,  
Oldenburg)

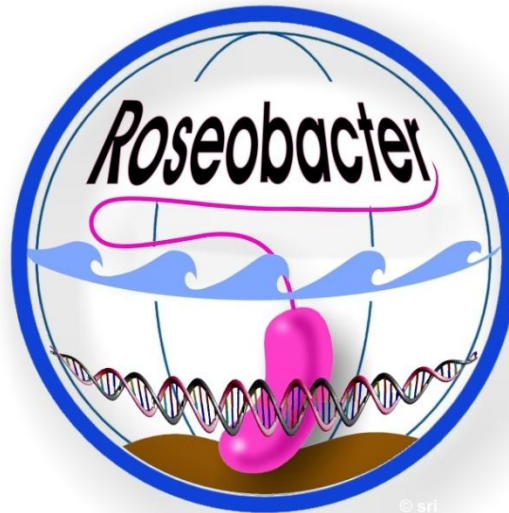
## Program

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
10:45-11:00	<b>Welcome and Introduction</b>	M. Simon
11:00-11:30	Genome analysis of <i>Roseobacter litoralis</i>	Daniela Kalhöfer
11:30-12:00	Genome analysis of <i>Octadecabacter arcticus</i> and <i>O. antarcticus</i>	John Vollmers
12:00-12:30	Genome analysis of <i>Phaeobacter gallaeciensis</i> strains DSM 1795 and 2.10	Thorsten Brinkhoff
<hr/>		
12:30-13:30	<b>Lunch</b>	
<hr/>		
13:30-14:15	<b>Lecture by Thomas Schweder</b>	Thomas Schweder, Institute for Biotechnology, University of Greifswald
14:15-14:45	Genome analysis of <i>Planktomarina temperata</i> (RCA23)	Sonja Voget
14:45-15:05	Status report of genome sequencing in project A6	Anne Fiebig Lea Vaas
<hr/>		
15:05-15:30	<b>Coffee break</b>	
<hr/>		
15:30-16:00	Plasmids	Jörn Petersen
<hr/>		
16:00-16:30	<b>Plenary assembly</b>	M. Simon
	Business and financial affairs	
	Report of Research Training Group	B. Junge
16:30-17:30 and beyond	<b>Open for small discussion groups</b>	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

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## **5<sup>th</sup> Status Seminar**

### ***Final Agenda***

**Date:** 6 February 2012  
**Time:** 10:45 h – 17:30 h  
**Venue:** Helmholtz Center for Infection Research  
Forum  
Inhoffenstr 7  
38124 Braunschweig  
**Organiser:** M. Simon (ICBM, Oldenburg)

**Topic:** - Genomics of the *Roseobacter* clade  
- Plenary assembly (Vollversammlung)

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),

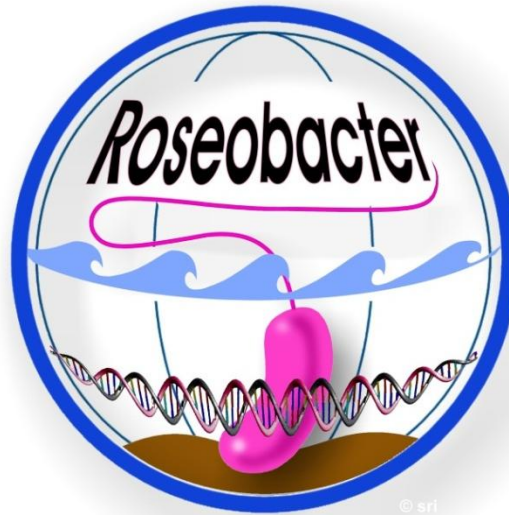
## Program

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
10:45-11:00	<b>Welcome and Introduction</b>	M. Simon
11:00-11:30	A3: Metagenomics of North Sea bacterioplankton	Bernd Wemheuer
11:30-12:00	A7: Population structure of <i>Dinoroseobacter shibae</i> and <i>Phaeobacter gallaeciensis</i> - implications for the ecology and evolution of the <i>Roseobacter</i> clade – Outline of the project	Heike Freese, Jörg Overmann
12:00-12:30	B3: Progress report	Jeroen Dickschat Nelson Brock
<hr/>		
12:30-13:30	<b>Lunch</b>	
<hr/>		
13:30-14:15	Chemical ecology and natural products of marine invertebrates – previous work and outline of a project proposal	Peter Schupp, ICBM
14:15-14:45	C4: Fluxomics of selected marine bacteria and first results of a mesocosm experiment on metafluxomics	Arne Klingner
14:45-15:15	Polarstern cruise from Cape Town to the German Antarctic Neumayer base, 3 <sup>rd</sup> Dec. 2011 – 5 <sup>th</sup> Jan. 2012 – report and first results	Helge Giebel, John Vollmers
<hr/>		
15:15-15:45	<b>Coffee break</b>	
<hr/>		
15:45-16:15	<b>Plenary assembly</b> Business and financial affairs Report of Research Training Group	Meinhard Simon and others
16:15-17:30 and beyond	<b>Open for small discussion groups</b>	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



**6<sup>th</sup> Status Seminar**

***Final Agenda***

- Date:** 5 June 2012  
**Time:** 10:45 h – 17:30 h  
**Venue:** Helmholtz Center for Infection Research  
Forum  
Inhoffenstr 7  
38124 Braunschweig  
**Organiser:** M. Simon, F. Esser (ICBM, Oldenburg)
- Topic:** - Physiology, Genetics and Systems Biology of the  
*Roseobacter* clade  
- Plenary assembly (Vollversammlung)
- Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),

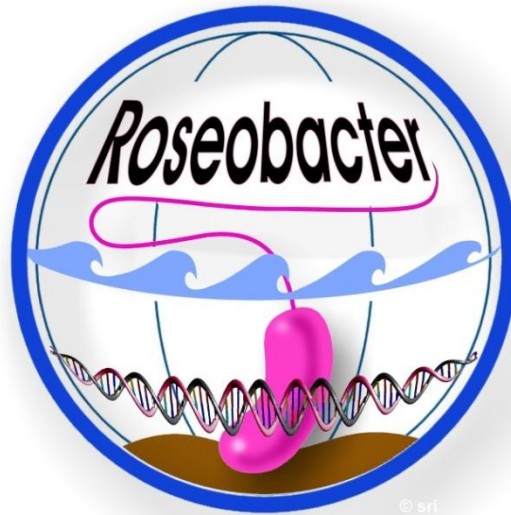
## Program

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
10:45-11:00	<b>Welcome and Introduction</b>	M. Simon
11:00-11:30	B1: Physiological adaptation of <i>D. shibae</i> during long term starvation	Maya Soora
11:30-12:00	C3: Predicted metabolic fluxes in <i>Dinoroseobacter shibae</i> depending on light/dark and aerobic/anaerobic conditions	René Rex
12:00-12:30	B4: Quorum sensing controls virulence related traits and population heterogeneity in <i>Dinoroseobacter shibae</i>	Diana Patzelt
12:30-13:30	<b>Lunch</b>	
13:30-14:30	Polarstern cruise from Punta Arenas to the Southern Ocean and across the Atlantic back to Bremerhaven, 14 Mar – 15 May 2012 – report and first results	Meinhard Simon et al.
14:30-15:00	B5/C5:	
15:00-15:30	C1: Physiology and Proteomics of Roseobacters	Lars Wöhlbrand, Kathleen Trautwein
15:30-16:00	<b>Coffee break</b>	
16:00-16:30	C2: Detection of signalling molecules and other metabolites	Alexander Neumann
16:30-17:00	B2: Analyses of quorum sensing regulated transcription in <i>Phaeobacter gallaeciensis</i> DSM 17935 and of specific epibacterial communities of the Roseobacter-Clade	Paul Beyersmann, Marco Gogs
17:00-17:30	<b>Plenary assembly</b> Business and financial affairs Report of Research Training Group	Meinhard Simon, Ferdinand Esser
	<b>A6: Genomik</b>	Markus Göker

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## **7<sup>th</sup> Status Seminar**

### ***Final Agenda***

**Date:** 15-16 October 2012

**Time:** Start 11:00

**Venue:** Hanse Institute for Advanced Studies  
Lehmkuhlenbusch 4  
27753 Delmenhorst

**Organiser:** Meinhard Simon (ICBM, Oldenburg)

**Purpose:** - Status report and plans of TRR 51 for the second phase

- Discussion of Plenary assembly
- Informal get together >

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de)) (ICBM,  
Oldenburg)

## Programme

**15 October 2012 Monday**

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
11:00-11:15	<b>Welcome and Introduction</b>	M. Simon
11:15-11:45	<b>A1</b> Progress report and future perspectives	M. Simon et al.
11:45-12:15	<b>A2</b> Progress report and future perspectives	B. Engelen et al.
12:15-12:45	<b>A3</b> Progress report and future perspectives	R. Daniel et al.
12:45-14:15	<b>Lunch</b>	
14:15-14:45	<b>A5</b> Progress report and future perspectives	J. Petersen et al
14:45-15:15	<b>A6</b> Progress report and future perspectives	H.P. Klenk et al.
15:15-15:45	<b>A7</b> Progress report and future perspectives	J. Overmann et al.
15:45-16:15	<b>Coffee Break</b>	
16:15-16:45	<b>C1</b> Progress report and future perspectives	R. Rabus et al.
16:45-17:15	<b>C2</b> Progress report and future perspectives	S. Schulz et al.
17:15-17:45	<b>C3</b> Progress report and future perspectives	D. Schomburg et al.
17:45-18:15	<b>C4</b> Progress report and future perspectives	C. Wittmann et al.
18:15-18:45	<b>Dinner</b>	
20:15-22:00	Small discussion groups and informal get together	

**16 October 2012 Tuesday**

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
09:00-09:45	<b>Roseophages</b>	F. Chen
09:45-10:15	<b>B1</b> Progress report and future perspectives	H. Cypionka
10:15-10:45	<b>B2</b> Progress report and future perspectives	T. Brinkhoff
10:45-11:15	<b>Coffee Break</b>	
11:15-11:45	<b>B3</b> Progress report and future perspectives	J. Dickschat
11:45-12:15	<b>B4</b> Progress report and future perspectives	I. Wagner-Döbler
12:15-12:45	<b>B5</b> Progress report and future perspectives	D. Jahn
12:45-14:15	<b>Lunch</b>	
14:15-14:30	Report of the Integrated Research Training Group	F. Esser, T. Piekarski

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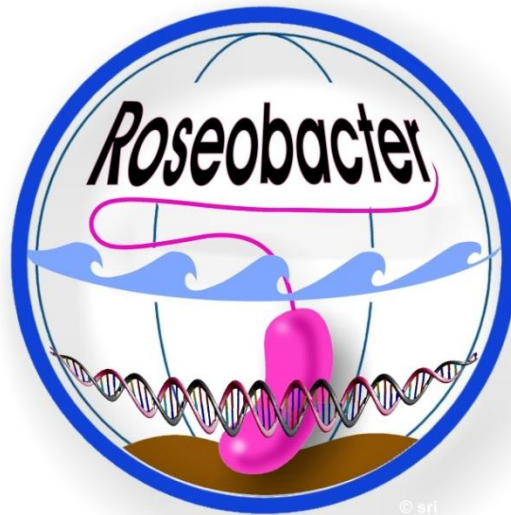
14:30-15:00	Ideas for new projects	T. Dittmar, P. Schupp, J. Petersen
<hr/>		
15:00-15:30	<b>Coffee Break</b>	
15:30-16:30	<b>General discussion on status quo, future plans and writing the report and renewal application</b>	M. Simon D. Jahn
16:30	<b>Concluding remarks</b>	M. Simon

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Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**  
([www.roseobacter.de](http://www.roseobacter.de))



**International Symposium 24 – 26 June 2013**

“Research highlights and reports of the first funding period”

***Final Agenda***

**Date:** 24 -26 June 2013

**Venue:** Hanse Institute for Advanced Study ([www.h-w-k.de](http://www.h-w-k.de))  
Lehmkuhlenbusch 4  
27753 Delmenhorst

**Organiser:** Meinhard Simon (ICBM, Oldenburg)

**Purpose:**

- Status report of TRR 51 of the funding period 2010-2013
- Report on current topics regarding the *Roseobacter* clade
- Informal get together >

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de)) (ICBM,  
Oldenburg)

## Programme

### 24 June 2013 Monday

<b>Time</b>	<b>Subject</b>	<b>Speaker/Chair</b>
17:00-17:30	Arrival and Informal get together	
18:00-18:40	<i>Phaeobacter</i> biofilms: natural occurrence and c-di-GMP-regulation of swim-stick lifestyle	Lone Gram, Technical University of Denmark, Lyngby
18:40-19:00	Turnover of the second messenger c-di-GMP in <i>Dinoroseobacter shibae</i>	Nicole Frankenberg Univ Bochum
19:00-20:00	Dinner	
20:00-22:00	Informal get together	

### 25 June 2013 Tuesday

<b>Time</b>	<b>Subject</b>	<b>Speaker/Chair</b>
08:45-09:00	Welcome and Introduction	Meinhard Simon
	Session 1: Ecology & Evolution	
09:00-09:40	Gene transfer agents - Bacteria capture phages and put them to work	Andrew Lang, University of New Foundland, St. John's, Canada
09:40-10:20	Global distribution of pelagic clusters of the <i>Roseobacter</i> clade.  Benefits of aerobic anoxygenic photosynthesis for growth of <i>Cand. Planktomarina temperata</i> of the <i>Roseobacter</i> clade affiliated (RCA) cluster	Sara Billerbeck  Helge A Giebel
10:20-10:40	Spatial distribution and diversity of the <i>Roseobacter</i> clade in temperate and permanently cold marine sediments	Saranya. Kanukollu
10:40-11:20	Coffee Break	
11:20-12:00	The genus <i>Octadecabacter</i> : A comparative genome analysis  Diversity and ecology of the <i>Roseobacter</i> clade and other marine microbes in the North Sea as revealed by metagenomic and metatranscriptomic approaches	John Vollmers  Bernd Wemheuer
12:00-12:20	The plasmid wealth of <i>Marinovum algicola</i> opens new perspectives on multipartite genomes	Oliver Frank
12:20-13:00	A6	A. Fiebig / C. Scheuner

13:00-14:30	Lunch break	
14:30-15:00	Population structure and divergence in the <i>Roseobacter</i> clade - implications for the ecology and evolution	Heike Freese
Session 2: Genetics & Physiology		
15:00-15:20	Light enhances survival of <i>Dinoroseobacter shibae</i> during long-term starvation	Maja Soora
15:20-15:40	Phototrophic capacity of marine <i>Roseobacter</i> species	Michal Koblizek
15:40-16:20	Coffee Break	
16:20-17:00	The antibiotic tropodithietic acid can replace acylated homoserine lactone as global gene regulator in <i>Phaeobacter gallaeciensis</i> DSM 17395	Paul Beyersmann
	Specific epibacterial communities on marine macroalgae: distribution patterns of the <i>Roseobacter</i> clade	Marco Dogs
17:00-17:20	Towards microbial control in aquaculture - <i>Phaeobacter</i> strains as fish larvae probiotics	Paul D'Alvise, Technical University of Denmark, Lyngby
17:20-18:00	Labeled compounds and protecting groups for the study of sulfur metabolism in the <i>Roseobacter</i> clade	Nelson Brock
	Synthetic approaches to tropodithietic acid and analogues	Patrick Rabe
18:00-18:20	Methylamine metabolism in the <i>Roseobacter</i> clade	Yin Chen, Univ of Warwick
18:20-18:40	Genetic, genomic and functional diversity in different <i>Roseobacter</i> species - from metal uptake to DMSP catabolism	Emily Fowler, Univ East Anglia
18:40-20:00	Dinner	
20:00-22:00	Informal get together	

### 26 June 2013 Wednesday

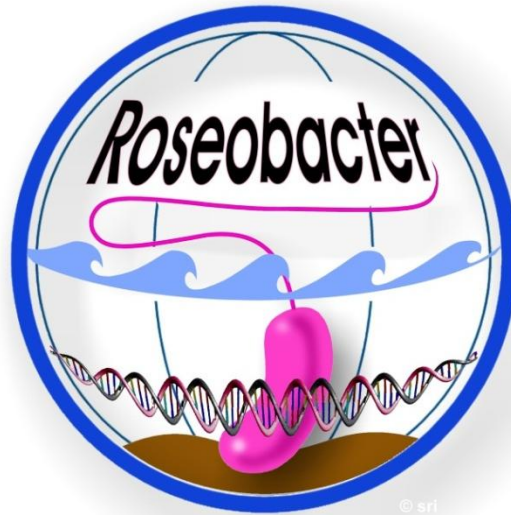
<b>Time</b>	<b>Subject</b>	<b>Speaker/Chair</b>
09:00-09:40	Catabolism of plant-derived aromatic compounds in <i>Sagittula stellata</i> : an illustration of the metabolic versatility of roseobacters	Alison Buchan, University of Tennessee, Knoxville, USA
Session 3: Systems Biology		
10:00-10:40	Control of morphological differentiation and autoinducer biosynthesis are linked in <i>Dinoroseobacter shibae</i>	Hui Wang  Diana Patzelt

	What are you telling me? <i>Dinoroseobacter shibae</i> 's response to external autoinducers	
10:40-11:20	Coffee Break	
11:20-12:00	Regulatory networks of the <i>Dinoroseobacter shibae</i> energy metabolism	Jenny Jacobs / Sebastian Laaß
12:00-12:40	Pathways and substrate-specific regulation of amino acid degradation in <i>Phaeobacter inhibens</i> DSM 17395 The cell envelope proteome of <i>Phaeobacter inhibens</i> DSM 17394	Katharina Drüppel Sebastian Koßmehl
12:40-13:20	Acylhomoserine lactones and other compounds from <i>Roseobacter</i> clade organisms Volatile compounds from <i>Roseobacter</i> clade organisms	Hilke Bruns Stefan Schulz
13:20-14:20	Lunch break	
14:20-15:00	Metabolome analysis of <i>Dinoroseobacter shibae</i> and <i>Phaeobacter inhibens</i> DSM 17395	Nelli Bill Michael Hensler
15:00-15:20	Functional contribution of central metabolic pathways to carbon dioxide assimilation in the marine bacterium <i>Dinoroseobacter shibae</i>	Annekathrin Bartsch
15:20-16:00	Coffee Break	
16:00-16:20	Tools for single cell analysis of gene expression in <i>Dinoroseobacter shibae</i>	Jürgen Tomasch
16:20-16:40	Information infrastructure, database and bioinformatics software development	Richard Münch
16:50	Concluding remarks	Meinhard Simon
17:15	<b>End of the Symposium</b>	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

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## **8<sup>th</sup> Status Seminar**

### ***Final Agenda***

**Date:** 8.-9. May 2014

**Time:** Start 11:00

**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organisers:** Ferdinand Esser, Meinhard Simon (ICBM, Oldenburg)

**Purpose:** Kick off meeting for the second funding period

Progress report of the last year

Presentation of projects of the second funding period

Meeting of new PhD students and other coworkers

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))

## Programme

**8 May 2014 Thursday**

<b>Time</b>	<b>Subject</b>	<b>Speaker</b>
11:00-11:15	Welcome and Introduction	M. Simon
11:15-12:15	Cryptic Elemental Cycling Between Ocean Microbes	M. A. Moran
12:15-12:45	Adaptation of <i>Roseobacter</i> clade <i>Planktomarina temperata</i> RCA23 to marine pelagic environments revealed by genomic and metatranscriptomic analyses (A3, A1)	S. Voget
12:45-14:15	Lunch	
14:15-14:45	Highly productive and active bacterioplankton communities in the South Shetland Islands region of the Southern Ocean in austral fall (A1, A3)	M. Simon
14:45-15:15	Growth response of bacterioplankton communities from the Southern and Atlantic Oceans to polymeric carbohydrates	M. Wietz
15:15-15:45	Regulation of genome evolution in the ocean: quorum sensin molecules induce type IV secretion system-depender interspecies conjugation in Roseobacters (C5)	D. Patzel
15:45-16:30	Coffee Break	
16:30-17:00	Co-cultivation suggests that pathogenicity of <i>Dinoroseobacter shibae</i> towards <i>Prorocentrum minimum</i> is controlled by quorum sensing and CtrA-phosphorelay? (B4)	H. Wang
17:00-17:30	Regulatory networks of <i>Dinoroseobacter shibae</i> for the adaptation to low iron and oxygen tension (B5)	E. Härtig
17:30-18:00	Carbohydrate catabolism in <i>Phaeobacter inhibens</i> (C1, C3)	K. Wiegmann, M. Hensler.
18:00-18:30	Open discussion	
18:45-20:00	<b>Dinner (Cafeteria Alter Landtag)</b>	
20:15-22:00	Small discussion groups and informal get together	

## 9 May 2014 Friday

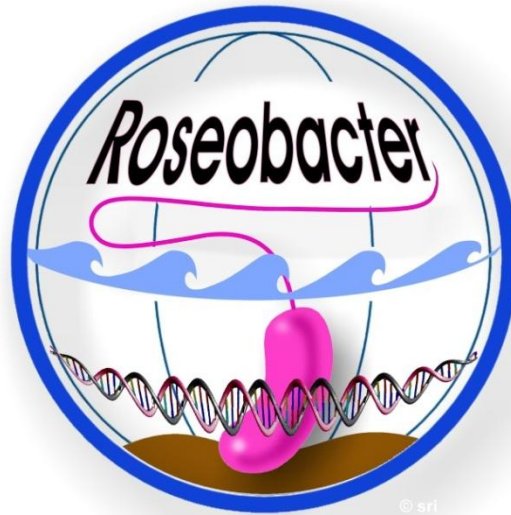
<b>Time</b>	<b>Subject</b>	<b>Speaker</b>
08:30-08:45	<b>arriving</b>	
08:45-09:00	<b>A1</b> Ecological significance, biogeography and physiology of the <i>Roseobacter</i> clade in pelagic systems	H.A. Giebel, I. Bakenhus
09:00-09:15	<b>A2</b> The metabolic potential and the distribution of the <i>Roseobacter</i> clade in marine sediments	B. Engelen
09:15-09:30	<b>Z02/A3</b> Assessment and exploitation of the metabolic potential and molecular characterization of uncultivated members of the <i>Roseobacter</i> clade	R. Daniel et. al.
09:30-09:45	<b>A5</b> Extrachromosomal, extraordinary and essential: The mobilome of the <i>Roseobacter</i> clade	O. Frank
09:45-10:00	<b>A6</b> Phylogenomics and functional genomics of the <i>Roseobacter</i> clade	H.P. Klenk et al.
10:00-10:15	<b>A7</b> Population structure and divergence in the <i>Roseobacter</i> clade - implications for the ecology and evolution	J. Overmann
10:15-10:45	<b>Coffee Break</b>	
10:45-11:00	<b>A8</b> Linking the exometabolome of selected pelagic organisms of the <i>Roseobacter</i> clade to marine dissolved organic matter	B. E. Noriega Ortega, G. Wienhausen
11:00-11:15	<b>B1</b> Physiological response to energy limitation in the <i>Roseobacter</i> clade	H. Cypionka et. al.
11:15-11:30	<b>B2</b> Genetics, regulation and ecological significance of secondary metabolite production of <i>Roseobacter</i> clade bacteria	M. Berger, L. Wolter
11:30-11:45	<b>B3</b> Synthetic and biosynthetic studies towards bioactive secondary metabolites of the <i>Roseobacter</i> clade	P. Rabe, I. Burkhardt
11:45-12:00	<b>B4</b> Beyond the photosynthesis gene cluster – The complex transcriptome of <i>D. shibae</i> revealed by strand specific RNA sequencing	J. Tomasch
12:00-12:15	<b>B5</b> Common regulatory networks for the adaptation of <i>Dinoroseobacter shibae</i> to low iron and oxygen tension	E. Härtig, et. al.
12:15-13:45	<b>Lunch</b>	
13:45-14:00	<b>C1</b> Growth control by nutrient limitation and plasmid-determinants in <i>Phaeobacter inhibens</i> DSM 17395 and metaproteomics	R. Rabus et. al.

14:00-14:15	<b>C2</b> Chemistry of secondary metabolite mediated interactions between bacteria of the <i>Roseobacter</i> clade and other organisms	S. Schulz, H. Bruns, L. Ziesche, M. Maczka
14:15-14:30	<b>C3</b> Metabolome analysis and modelling of the metabolism of <i>Dinoroseobacter shibae</i> and <i>Phaeobacter inhibens</i> DSM 17395	M. Hensler, S. Kleist
14:30-14:45	<b>C5</b> Single cell analysis of population heterogeneity in <i>Dinoroseobacter shibae</i>	D. Patzelt, I. Wagner-Döbler
14:45-15:15	<b>Coffee Break</b>	
15:15-15:30	<b>C5 / INF</b> Information infrastructure, database & bioinformatics tool development	S. Heyber
15:30-15:45	<b>C6</b> Adaption of <i>Dinoroseobacter shibae</i> to different kinds of oxidative stress	S. Engelmann
15:30-15:45	Report of the Integrated Research Training Group	F. Esser, Ch. Lange
15:45-16:00	<b>General assembly and discussion on status quo, future plans</b>	M. Simon
16:00	<b>Concluding remarks</b>	M. Simon

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



**9<sup>th</sup> Status Seminar**  
***Final Agenda***

**Date:** 20th November 2014

**Time:** Start 11:00

**Venue:** Helmholtz-Center for Infection Research  
Inhoffenstr. 7  
38124 Braunschweig

Forum (Building X)

**Organizer:** Irene Wagner-Döbler (HZI Braunschweig)

**Purpose:** Strengthen interactions, develop ideas and strategies,  
support students, show novel results.

**Contact:** Irene Wagner-Döbler  
**[Irene.Wagner-Doebler@helmholtz-hzi.de](mailto:Irene.Wagner-Doebler@helmholtz-hzi.de)**

## Program

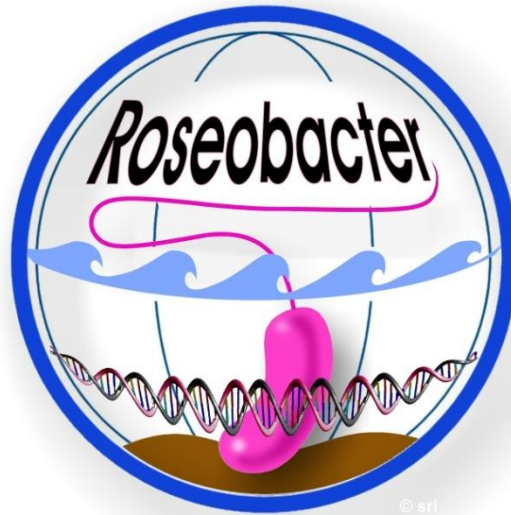
<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
11:00-11:05	Welcome and Introduction	M. Simon
11:05-11:15	Short information about the program	I. Wagner-Döbler
11:15-12:00	Roseobacter phylogenomics	M. Göker
12:00-13:00	Highlight-Presentations (see list)	D. Patzelt
13:00-14:00	Lunch (Fingerfood) in the Foyer; Posters (see list)	
	<b>Working groups</b>	
	1 Transcriptomics (Forum)	J. Tomasch
	2 Construction of knock-outs (W1.43)	M. Ebert
14:00-15:30	5 Siderophores (W0.52)	
	6 Systems biology Phaeobacter / Plasmids (X0.13a)	D. Schomburg, R. Rabus
	8 Phylogenomics (GZ1.122)	M. Göker
15:30-16:00	Coffee Break	
16:00-16:30	Report on working groups	
16:30-17:00	Open discussion	M. Simon

Short Talks and Posters Statusseminar 20.11.2014				
	Presenter	Title	talk	post
1	Jenny Jacobs	Hemin uptake system of <i>D. shibae</i>	ok	ok
2	Gerrit Wienhausen and Beatriz Noriega	Substrate and growth phase dependent exometabolome composition of <i>Phaeobacter inhibens</i>	ok	ok
3	Steffi Heyber	Influence of light on the bacteriochlorophyll synthesis	ok	ok
4	Hilke Bruns	Antialgicidal activities and new N-acylated amino acids	ok	ok
5	Hui Wang	Culture supernatants of <i>D. shibae</i> kill <i>Prorocentrum minimum</i>	ok	ok
6	Bernd Wemheuer	Tax4Fun: predicting functional profiles from metagenomic 16S rRNA data	ok	ok
7	Heike Freese	Intraspecific genome evolution of <i>Phaeobacter</i>	ok	ok
8	Jörn Petersen	4,000 Transposon mutants from <i>Phaeobacter inhibens</i> DSM 17395 in three minutes	ok	
9	Saranya Kanukollu and Marion Pohlner	Identification of metabolically active microbial communities in sediments by two independent RNA-based <i>in vivo</i> labeling techniques	ok	ok
10	Jörn Petersen	The sixth element: The 102-kb plasmid of <i>D. shibae</i> modulates chromosomal gene expression	ok	
11	Meinhard Simon	Sonne is rising!	ok	
	Saranya Kanukollu	Specific distribution of <i>Roseobacter</i> populations from the water column and down to the sediments of a coastal sea		ok
	Vicky Peters	Plasmid mutants and SNPs		ok

Transregional Collaborative Research Centre (TRR 51)

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## **10<sup>th</sup> Status Seminar**

### ***Final Agenda***

**Date:** 7.-8. May 2015  
**Time:** Start 11:00  
**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organisers:** Ferdinand Esser, Meinhard Simon (ICBM, Oldenburg)

**Purpose:** Progress report of the last year

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))

## Programme

### 7 May 2015 Thursday

<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
11:00-11:15	Welcome and Introduction	M. Simon
11:15-11:45	Phylogenetic and physiological diversity of epiphytic <i>Rhodobacteraceae</i> bacteria on the marine brown alga <i>Fucus spiralis</i> (B2)	Marco Dogs, Thorsten Brinkhoff
11:45-12:15	Secondary metabolites of Roseobacter clade bacteria and their biological activity (C2)	Lisa Ziesche, Stefan Schulz
12:15-12:45	Newly identified osmoprotectants in <i>Dinoroseobacter shibae</i> (C3)	Sarah Kleist
12:45-14:15	Lunch	
14:15-15:15	Short presentations of poster talks	see attached list
15:15-16:15	Poster session	
16:15-16:45	Coffee Break	
	Discussion groups	
16:45-18:15	<ol style="list-style-type: none"> <li>1. 6th plasmid and anaerobic metabolism of <i>D. shibae</i></li> <li>2. Secondary metabolites</li> <li>3. Phylogenomics of Rhodobacteraceae</li> </ol>	Jürgen Tomasch Martine Berger Markus Göker and others
18:30-20:00	<b>Dinner (Cafeteria Alter Landtag)</b>	
20:15-22:00	Small discussion groups and informal get together	

### 8 May 2015 Friday

<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
08:45-09:00	<b>arriving</b>	
09:00-09:30	Present state of the transposon mutant library (A5)	Pascal Bartling, Jörn Petersen
09:30-10:00	Growth control by plasmids in <i>Phaeobacter inhibens</i> DSM 17395 (C1, C3)	Kathleen Trautwein, Sabine Will
10:00-10:30	Ecology and genomics of the pelagic <i>Roseobacter</i> clade subcluster CHAB-I-5 (A1)	Sara Billerbeck
10:30-11:00	<b>Coffee Break</b>	

11:00-12:30	<b>Discussion groups</b>	
12:30-13:45	<b>Lunch</b>	
13:45-14:30	<b>Discussion groups</b>	
14:30-15:00	<b>Coffee Break</b>	
15:00-15:15	Report of the Integrated Research Training Group	F. Esser
15:15-15:45	General assembly and discussion on status quo, future plans and concluding remarks	M. Simon
15:45	End	

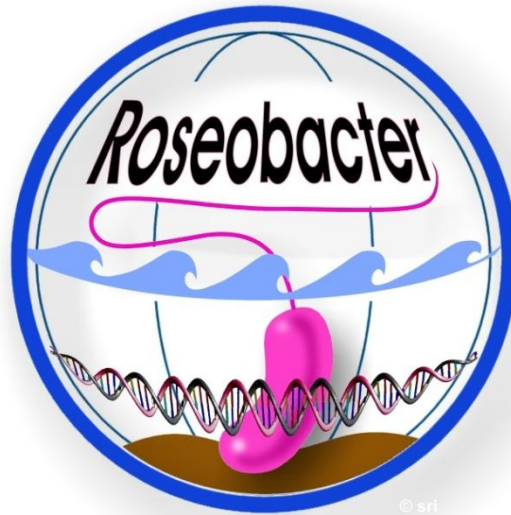
### Poster presentations

TP	Autor	Poster
A1	Insa Bakenhus	Assessment of the major phylogenetic groups in the Southern and Atlantic Oceans by pyrosequencing and FISH
A2	Marion Pohlner	Defining the unknown roseobacters in marine sediments
A3	Florian Lenk	Amplicon Search: A new tool for in silico amplicon detection in metagenomic sequencing data
A5	Silke Pradella et al.	Ocean's twelve: Flagellar and biofilm chromids in the multipartite genome of <i>Marinovum algicola</i> DG898
A7	Heike Freese	Mobile genetic elements in <i>Phaeobacter</i> spp.
A8	Gerrit Wienhausen, Beatriz Noriega-Ortega et al.	Linking the exometabolome to the transcriptome of <i>Phaeobacter inhibens</i>
B1	Christian Kirchhoff	Energetically depleted <i>Dinoroseobacter shibae</i> maintains strong membrane potential
B2	Martine Berger Sven Breider	Acquisition and utilization of iron by <i>Phaeobacter inhibens</i> DSM17395 Isolation of <i>Phaeobacter</i> strains from German harbours
B3	Ersin Celik	Conversion of the sulfoquinovose catabolite 2,3-dihydroxypropane-1-sulfonate by <i>Phaeobacter inhibens</i>
B4	Jürgen Tomasch	Single cell analysis of gene expression and PHB content in <i>Dinoroseobacter shibae</i>
B5	Maren Behringer Matthias Ebert	Iron-dependent gene regulation in <i>D. shibae</i> and functional analysis of the RirA regulator Oxygen-dependent gene regulation in <i>D. shibae</i> and functional analysis of the DnrF regulator
C6	Nicole Beier, Martin Kucklick, Susanne Engemann	Adaptation of <i>Dinoroseobacter shibae</i> to oxidative stress

Transregional Collaborative Research Centre (TRR 51)

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**11<sup>th</sup> Status Seminar**  
***Final Agenda***

**Date:** 9th November 2015

**Time:** Start 11:00

**Venue:** Helmholtz-Center for Infection Research  
Inhoffenstr. 7  
38124 Braunschweig

Forum

**Organizer:** Meinhard Simon, Ferdinand Esser (ICBM, Oldenburg)  
Irene Wagner-Döbler (HZI Braunschweig)

**Purpose:** Status report in the middle of this funding period.  
Look at the achievements of the last two years, current work  
and plans for the next two years.

**Contact:** Ferdinand Esser (ferdinand.esser@uni-oldenburg.de)

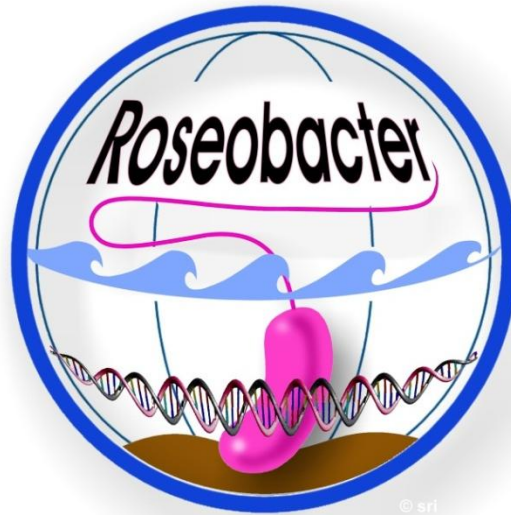
## Program

<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
11:00-11:10	Welcome and Introduction	M. Simon
11:10-11:40	Lipid substitution in Roseobacters and other marine bacteria as a response to phosphorus limitation	M. Koblizek
11:40-12:00	Adaptation of <i>Rhodobacteraceae</i> to marine and non-marine habitats	Meinhard Simon et al.
12:00-12:20	Barriers of dispersion shape bacterioplankton communities in the deep Atlantic Ocean	Mathis Milici B4
12:20-12:40	Regulation of anaerobic respiratory pathways in <i>Dinoroseobacter shibae</i>	Matthias Ebert B5
12:40-13:00	<i>Dinoroseobacter shibae</i> - A genetic nightmare?	Jörn Petersen A5
13:00-13:30	Lunch (Fingerfood) in the Foyer	
13:30-15:00	<b>Poster session: Achievements since 2014 and planned work/publications until 2017</b>	
15:00-15:30	Coffee Break	
15:30-15:50	CO <sub>2</sub> fixation pathways in <i>Dinoroseobacter shibae</i>	Nelli Bill C3
15:50-16:10	Chemistry of DMSP Degrading Enzymes from the <i>Roseobacter</i> Clade	Immo Burkhardt B3
16:10-16:50	Sonne cruise across the Pacific 1 May – 4 June 2016: Report on the present state of planned work	M. Simon
16:50-17:00	Plenary assembly	M. Simon

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**



## **12<sup>th</sup> Status Seminar**

### ***Final Agenda***

**Date:** 23.-24. June 2016

**Time:** Start 11:00

**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organisers:** Ferdinand Esser, Meinhard Simon (ICBM, Oldenburg)

**Purpose:** Progress report and perspectives for the next application period

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))

## Programme:

### Progress report and perspectives for the next application period

**23 June 2016 - Thursday**

<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
11:00-11:10	Welcome and Introduction	Meinhard Simon
11:10-11:30	Physiological response to energy limitation in the <i>Roseobacter</i> clade (B1)	Heribert Cypionka
11:30-11:50	Genetics, regulation and ecological significance of secondary metabolite production of <i>Roseobacter</i> clade bacteria (B2)	Thorsten Brinkhoff
11:50-12:10	Synthetic and biosynthetic studies towards bioactive secondary metabolites of the <i>Roseobacter</i> clade (B3)	Jeroen Dickschat, Stefan Schulz
12:10-12:30	Cell-cell communication of bacteria of the <i>Roseobacter</i> clade with other bacteria and algae (B4)	Irene Wagner-Döbler, Jürgen Tomasch
12:30-13:30	Lunch	
13:30-13:50	Common regulatory networks for the adaptation to low iron and oxygen tension (B5)	Elisabeth Härtig, Dieter Jahn
13:50-14:10	Ecological significance, biogeography and physiology of the <i>Roseobacter</i> clade in pelagic systems (A1)	Meinhard Simon
14:10-14:30	The metabolic potential and the distribution of the <i>Roseobacter</i> clade in marine sediments (A2)	Bert Engelen
14:30-14:50	Assessment and exploitation of the metabolic potential and molecular characterization of uncultivated members of the <i>Roseobacter</i> clade (Z02/A3)	Rolf Daniel
14:50-15:10	Extrachromosomal, extraordinary and essential – the mobilome of the <i>Roseobacter</i> clade (A5)	Jörn Petersen
15:10-15:30	Roseophages - first results and research outlook	Cristina Moraru
15:30-15:45	Swim or die trying - The archetypal flagellar system of <i>Phaeobacter inhibens</i> DSM17395 (A5)	Pascal Bartling Jörn Petersen
15:45-16:30	Coffee Break	
16:30-18:00	Discussion groups 1. Future plans 1 2. Future plans 2 3. Future plans 3	Jörn Petersen Meinhard Simon Markus Göker
18:30-20:00	<b>Dinner (Cafeteria Alter Landtag)</b>	
20:15-22:00	Small discussion groups and informal get together Poster Session	

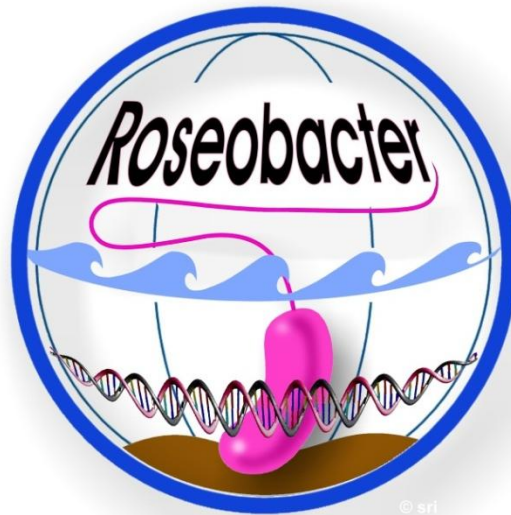
## 24 June 2016- Friday

<b>Time</b>	<b>Subject</b>	<b>Speaker</b>
08:45-09:00	<b>arriving</b>	
09:00-09:50	The ubiquitous stress protectants ectoine and hydroxyectoine: how to make them – how to break them	Erhard Bremer
09:50-10:10	Phylogenomics and functional genomics of the <i>Roseobacter</i> clade (A6)	Markus Göker
10:10-10:30	Population structure and divergence in the <i>Roseobacter</i> clade - implications for the ecology and evolution (A7)	Jörg Overmann
10:30-11:00	<b>Coffee Break</b>	
11:00-11:20	Linking the exometabolome of selected pelagic organisms of the <i>Roseobacter</i> clade to marine dissolved organic matter (A8)	Jutta Niggemann Meinhard Simon
11:20-11:40	Growth control by nutrient limitation and plasmid-determinants in <i>Phaeobacter inhibens</i> DSM 17395 and metaproteomics (C1)	Ralf Rabus
11:40-12:00	Chemistry of secondary metabolite mediated interactions between bacteria of the <i>Roseobacter</i> clade and other organisms (C2)	Stefan Schulz
12:00-12:20	Metabolome analysis and modelling of the metabolism of <i>Dinoroseobacter shibae</i> and <i>Phaeobacter inhibens</i> DSM 17395 (C3)	Dietmar Schomburg
12:20-13:30	<b>Lunch</b>	
13:30-13:50	Systems biology of <i>Dinoroseobacter shibae</i> 's environmental adaptation (C5)	Steffi Heyber
13:50-14:10	Adaptation of <i>Dinoroseobacter shibae</i> to different kinds of oxidative stress (C6)	Susanne Engelmann
14:10-14:50	Report on the Sonne cruise across the Pacific	Meinhard Simon
14:50-15:15	<b>Coffee Break</b>	
15:15-15:30	Report of the Integrated Research Training Group	Ferdinand Esser
15:30-15:45	Report of the home page of TRR 51	Elisabeth Härtig
15:45-16:15	General assembly and discussion on status quo, future plans and concluding remarks	M. Simon
16:15	End	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**  
([www.roseobacter.de](http://www.roseobacter.de))



**Kick Off Symposium Phase III  
6 – 7 June 2018**

***Final Agenda***

**Date:** 6-7 June 2018

**Time:** Start 10:00

**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organisers:** Ferdinand Esser, Meinhard Simon (ICBM, Oldenburg)

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))

## Programme

6 June 2013 Wednesday

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
10:00-10:30	Arrival and Informal get together	
10:30-10:45	Welcome and Introduction	Meinhard Simon
10:45-11:30	Bacterial effects on algal life, death, and geology	Einat Segev Weizman Institute, Rehovot, Israel
11:30-12:00	Horizontal operon transfer, plasmids and the evolution of photosynthesis in <i>Rhodobacteraceae</i>	Jörn Petersen
12:00-12:20	Growth stoichiometry and energetics of <i>Phaeobacter inhibens</i> DSM 17395	Daniel Wünsch
12:20-12:40	Distinct relationships between fluorescence in situ hybridization- and rDNA and rRNA-based tag sequencing data of bacterioplankton lineages	Insa Bakenhus, Meinhard Simon
12:40-14:15	Lunch break	
14:15-15:00	Marine phototroph-heterotroph interactions propelled by cross-feeding	Joseph Christie-Oleza, University of Warwick, UK
15:00-15:20	Does the chemodiversity of bacterial exometabolomes sustain the chemodiversity of marine dissolved organic matter?	Jutta Niggemann
15:20-15:40	Impact of vitamin B12 and a biosynthetic precursor on bacterioplankton growth and community composition in oceanic systems	Gerrit Wienhausen
15:40-16:00	Impact of loss of quorum sensing and tropodithietic acid production on <i>Phaeobacter inhibens</i> exometabolome	Sujatha Srinivas
16:00-16:30	Coffee Break	
16:30-18:00	Discussion  Current state on genome sequencing of <i>Thalassiosira rotula</i> and <i>Prorocentrum minimum</i>  Planning and current state of experiments on algal-bacterial interactions  Possibilities for other discussion groups	Meinhard Simon Dieter Jahn
18:30-20:00	Dinner	
20:00-22:00	Informal get together  Discussion groups	

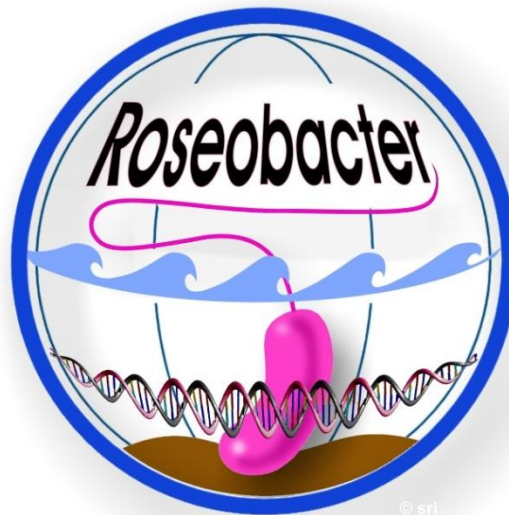
## 7 June 2018 Thursday

<i>Time</i>	<i>Subject</i>	<i>Speaker/Chair</i>
09:00-09:45	Host-microbe systems in the ocean	Rebecca Case, University of Alberta, Edmonton, Canada
09:45-10:05	Status quo of metaproteomics analyses	Lars Wöhlbrand
10:05-10:30	Roseophages - new developments	Cristina Moraru
10:30-11:00	Coffee Break	
11:00-12:00	General discussion on current and future work and plenary assembly of TRR 51	Meinhard Simon
12:00-13:30	Lunch break	
13:30-14:00	Cruises SO248 and SO254 with RV Sonne in the Pacific: current state of data processing and results	Meinhard Simon
14:00-14:15	Composition of bacterial and archaeal communities along the Pacific transects of cruises SO248 and SO254	Rolf Daniel
14:15-14:30	Discussion on cruises SO248 and SO254	Meinhard Simon
14:30-15:00	Coffee Break	
15:00-16:30	Discussion group on viruses Possibilities for other discussion groups	Cristina Moraru
16:30	Concluding remarks	Meinhard Simon
16:45	<b>End of the Symposium</b>	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* Group:**

**Towards a Systems Biology Understanding of a  
Globally Important Group of Marine Bacteria**



**13<sup>th</sup> Status Seminar**

***Final Agenda***

**Date:** 30. November 2018

**Time:** Start 11:00

**Venue:** BRICS Braunschweig Integrated Centre of Systems Biology  
Rebenring 56  
38106 Braunschweig

**Organisers:** Ferdinand Esser, Meinhard Simon (ICBM, Oldenburg)  
Christina Nitzsche, Elisabeth Härtig (TU BS; BRICS),

**Purpose:** Progress report and perspectives for the upcoming years

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),

F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))

C. Nitzsche ([c.nitzsche@tu-bs.de](mailto:c.nitzsche@tu-bs.de))

## Programme:

### Progress report and perspectives for the upcoming years

#### 30 November 2018 - Friday

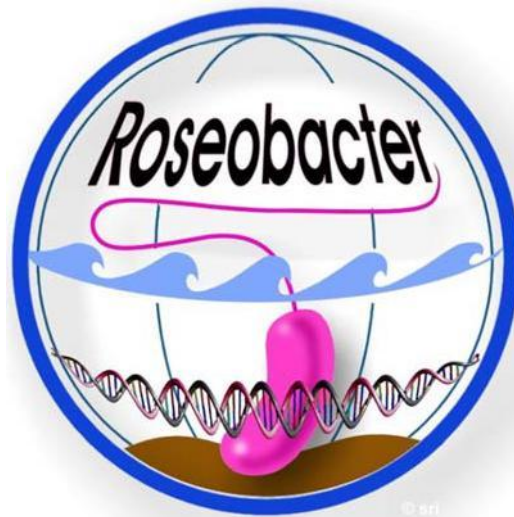
Time	Subject	Speaker
11:00-11:10	Welcome and Introduction	Meinhard Simon
11:10-11:30	First World Swimming Championships of Roseobacters	Jörn Petersen (A5)
11:30-11:50	The Atlantic Ocean Metagenome	Leon Dlugosch (A1)
11:50-12:10	Outer Membrane Vesicles of <i>Dinoroseobacter shibae</i> and <i>Prorocentrum minimum</i>	Johannes Mansky et al (B4)
12:10-12:50	Algal Sequencing projects: <i>Prorocentrum minimum</i> and <i>Thalassiosira rotula</i> status quo and perspectives Plenary discussion	Irene Wagner-Döbler, Meinhard Simon et al.
12:50-13:45	Lunch	
13:45-15:30	Poster presentation of current work of each project and discussion in smaller groups on current and future projects and cooperation	
15:30-16:00	Coffee Break	
16:00-16:45	Discussion groups on topics to be determined	
16:45-17:00	Outlook to the Roseobacter symposium 2019 and future work	Meinhard Simon and organizing committee
17:00	End	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**

[www.roseobacter.de](http://www.roseobacter.de)



**14<sup>th</sup> Status Seminar  
13 – 14 June 2019**

***Final Agenda***

**Date:** 13 - 14 June 2019

**Time:** Start 11:00

**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organisers:** Ferdinand Esser, Meinhard Simon (ICBM, Oldenburg)

**Contact:** M. Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))



## Programme

**13 June 2019 Thursday**

Time	Subject	Speaker/Chair
10:30-11:00	Arrival and informal get together	
11:00-11:10	Welcome and Introduction	Meinhard Simon
11:10-11:35	Genetic Globetrotter - A marine plasmid hitch-hiking vast phylogenetic and geographic distances	Jörn Petersen
11:35-12:00	Diverse secondary metabolite production of marine host-associated <i>Paracoccus</i> spp.	Janina Leinberger
12:00-12:25	Sequencing and assembly of the <i>Prorocentrum minimum</i> genome	Irene Wagner-Döbler / Boyke Bunk
12:30-14:00	Lunch break	
14:00-16:00	Poster session and individual discussions	all
16:00-16:30	Coffee Break	
16:30-18:00	Discussion in breakout groups:	all
	- Group I: Systemsbiology <i>Prorocentrum</i>	I. Wagner-Döbler
	- Group II: <i>Thalassiosira rotula</i>	M. Simon
	- Group III: Roseophages	B. Engelen
	- Group IV: Special features of the <i>Paracoccus</i> group	T. Brinkhoff
18:00-19:30	Dinner	
19:30-22:00	Informal get together	

## 14 June 2019 Friday

<b>Time</b>	<b>Subject</b>	<b>Speaker/Chair</b>
09:00-09:10	Arrival and informal get together	
09:10-09:30	The Atlantic Ocean microbiome	Leon Dlugosch
09:30-09:50	Under the sea: Depth profile of the Pacific Ocean microbiome	Jaqueline Hollensteiner
09:50-10:10	Metaproteomic analyses of Pacific Ocean deep sea sediments	Lars Wöhlbrand
10:10-10:30	Biogeography of <i>Rhodobacteraceae</i> in worldwide distributed sediments	Marion Pohlner
10:30-11:00	Coffee Break	
11:00-11:15	Rapport of breakout group I	Rapporteur group I
11:15-11:30	Rapport of breakout group II	Rapporteur group II
11:30-11:45	Rapport of breakout group III	Rapporteur group III
11:45-12:00	Rapport of breakout group IV	Rapporteur group IV
12:00-13:30	Lunch break	
13:30-14:00	Ideas for various synthesis papers	all
14:00-14:30	Status of conference "Marine Microbiota"	Meinhard Simon
14:30-15:00	Concluding remarks	Meinhard Simon
15:00	<b>End of the Symposium</b>	



28 – 30 August 2019

**28th of August, Wednesday**

<b>Time</b>	<b>Subject</b>	<b>Speaker</b>
14:00	<i>Arrival, registration and poster set up</i>	
16:00	Welcome address and Introduction to the Symposium	Meinhard Simon
<b>Session I: Function and Diversity (a)</b>		
16:15	Marine microbial community patterns and interactions	Jed Fuhrman
17:00	From the ocean to molecular mechanisms and back – what Roseobacters have told us	Irene Wagner Döbler
17:30	<i>Informal get-together</i>	

## 29th of August, Thursday

<b>Session I: Function and Diversity (b)</b>		
09:00	Microbial Ecology and Proteogenomics of Marine Polysaccharide Utilization by <i>Bacteroidetes</i>	Rudi Amann
09:30	Aquatic fungal dark matter: A key for foodweb functioning in a spatio-temporal context	Hans-Peter Grossart
09:45	A pipeline for targeted metagenomics of environmental bacteria	Anissa Grieb
10:00	Quorum Sensing regulates "swim-or-stick" lifestyle in phytoplankton-associated bacteria	Cong Fei
09:45	Roseobacteria dominate interactions between a cosmopolitan diatom and its microbiome	Ahmed Shibl
10:30	<i>Coffee Break</i>	
11:00	Biogeography of Rhodobacteraceae in worldwide distributed sediments	Marion Pohlner
11:15	Elucidation of aminolipids biosynthesis in marine bacteria and their role in lipid remodelling	Yin Chen
11:30	Transfer or no transfer? Diversity and evolution of extrachromosomal replicons in surface-associated marine bacteria	Heike Freese
11:45	Poster Pitches by Lukas Birmes, Ashley Isaac, Charlotte Gruender, Falk Zucker and Emese Szabo	
12:15	<i>Lunch break</i>	
<b>Session II: Chemistry and Physiology (a)</b>		
13:15	Cryptic Natural Products in Bacterial Monocultures and Microbial Symbioses	Mohammad R. Seyedsayamdost
13:45	Abundance and dynamics of laminarin - a key molecule in the marine carbon cycle	Stefan Becker
14:00	Metabolism of the Osmostress protectants Ectoine and Hydroxyectoine in <i>Ruegeria pomeroyi</i> ? Regulation and Mechanisms	Lucas Hermann
14:14	Clustered core- and pan-genome content on Rhodobacteraceae chromosomes	Karel Kopejtko
14:30	Reprogramming of marine Rhodobacteraceae by a conjugative killer plasmid	Jörn Petersen
14:45	<i>Coffee Break</i>	
15:15	Poster Session	
17:15	End of Poster Session	
19:00	<i>Symposium dinner at the "Alte Fleiwa"</i>	

## 30th of August, Friday

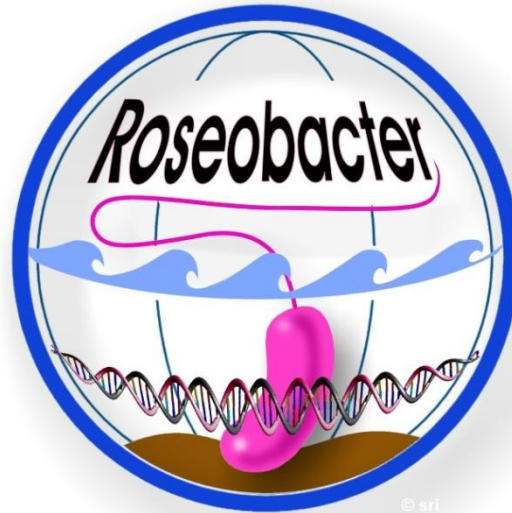
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<b>Session II: Chemistry and Physiology (b)</b>		
09:00	The Role of Algal-Bacterial Interactions in Global Biogeochemical Cycles	Einat Segev
09:30	Molecular basis of the Beta-hydroxyaspartate cycle and its role in marine glycolate metabolism	Lennart Schada von Borzyskowski
09:45	Marine glycans? Did we miss them out with traditional methods?	Hagen Buck-Wiese
10:15	<b>Coffee Break</b>	
10:45	Photoheterotrophic activity and growth of the aerobic anoxygenic phototrophs belonging to Roseobacter group	Michal Koblizek
11:00	You can count on me! - Using PAINT-FISH to enumerate ribosomes in E. coli as a proxy for cellular activity	Jan D. Brüwer
11:15	The chemical odor space of Salinispora bacteria	Stefan Schulz
11:30	<b>Lunch break</b>	
<b>Session III: Viruses and Systems Biology</b>		
12:30	Diverse and novel podoviruses infecting abundant marine Roseobacter - the RCA lineage	Yanlin Zhao
13:00	Phages are a mortality factor of bacterial key groups during marine spring phytoplankton blooms	Nina Heinzmann
13:15	The viral shunt impacts microbial community structures and dissolved organic matter composition in deep-sea sediments	Mara Heinrichs
13:30	Cobaviruses – a new globally distributed phage group infecting Rhodobacteraceae in marine ecosystems	Cristina Moraru
13:45	Cyclic-di-GMP-mediated Regulation of Gene Transfer in Rhodobacter capsulatus	Andrew Lang
14:15	<b>Wrap-up and farewell</b>	Meinhard Simon
14:45	<b>End of Symposium</b>	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* Group:**

**Towards a Systems Biology Understanding of a  
Globally Important Group of Marine Bacteria**



## **15<sup>th</sup> Status Seminar**

### ***Final Agenda***

**Date:** 10<sup>th</sup>, 12<sup>th</sup> and 23<sup>rd</sup> February 2021  
**Time:** 13:00-16:00 / 14:00-16:00 (23<sup>rd</sup> Feb)  
**Online link:** <https://meeting.uol.de/b/mei-1x2-c35-5i3>

**Organiser:** Meinhard Simon (ICBM, Oldenburg)

**Purpose:** Progress report and perspectives for the closing year

**Contact:** Meinhard Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),

**Programme:  
Progress report**

**10<sup>th</sup> February 2021 - Wednesday**

Time	Subject	Speaker
13:00-13:10	Welcome and Introduction	Meinhard Simon
13:10-14:30	Chair: Irene-Wagner-Döbler	
13:10-13:30	Project A1	Meinhard Simon et al.
13:30-13:50	Project A8	Jutta Niggemann et al
13:50-14:10	Project A2	Bert Engelen et al
14:10-14:30	Project Z02	Rolf Daniel et al
14:30-14:40	Break	
14:40-16:00	Chair: Bert Engelen	
14:40-15:00	Project A5	Jörn Petersen / Silke Pradella et al
15:00-15:15	Project A6	Markus Göker et al
15:15-15:35	Project A7	Jörg Overmann & Heike Freese
15:35-15:55	Project B2	Thorsten Brinkhoff et al.
15:55-16:00	Final remarks and wrap up	
16:00	End	

**12<sup>th</sup> February 2021 - Friday**

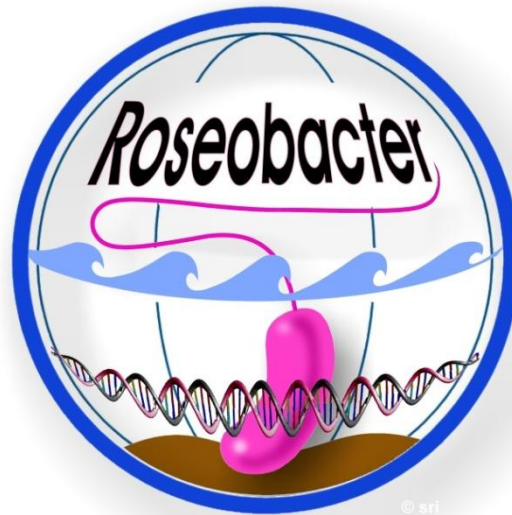
Time	Subject	Speaker
13:00-14:20	Chair: Jörg Overmann	
13:00-13:20	Project B4	Irene Wagner-Döbler et al.
13:20-13:40	Project B5	Dieter Jahn et al.
13:40-14:00	Project B6	Cristina Moraru et al
14:00-14:20	Project B7	Jeroen Dickschat et al
14:20-14:30	Break	
14:30-16:00	Chair: Jutta Niggemann	
14:30-14:50	Project C1	Ralf Rabus et al
14:50-15:05	Project C2	Stefan Schulz et al
15:05-15:20	Project C3	Karsten Hiller et al.
15:20-15:40	Project C5	Ralf Rabus & Irene Wagner-Döbler et al
15:40-15:55	Project C7	Bernd Blasius et al
15:55-16:00	Final remarks and wrap up	
16:00	End	

## 23<sup>rd</sup> February 2021 - Tuesday

Time	Subject	Speaker
14:00-16:00	Chair: Meinhard Simon	
14:00-14:10	INF	Dieter Jahn et al
14:10-14:20	MGK	Ferdinand Esser
14:20-15:20	Algal Sequencing projects: Prorocentrum minimum and Thalassiosira rotula	I. Wagner-Döbler, D. Jahn, B. Bunk, M. Simon, et al.
15:20-16:00	Final discussion and perspectives to wrap up the CRC – Plenary Discussion	Meinhard Simon
16:00	End	

**Ecology, Physiology and Molecular Biology of the *Roseobacter* Group:**

**Towards a Systems Biology Understanding of a  
Globally Important Group of Marine Bacteria**



**16<sup>th</sup> Status Seminar**

***Final Agenda***

**Date:** 18<sup>th</sup> May 2021

**Time:** 14:00-17:00

**Online link:** <https://meeting.uol.de/b/mei-1x2-c35-5i3>

**Organiser:** Meinhard Simon (ICBM, Oldenburg)

**Purpose:** Progress report on algal bacterial interactions and perspectives for the remaining funding time

**Contact:** Meinhard Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),

**Programme:  
Progress report**

**18<sup>th</sup> May 2021 - Tuesday**

Time	Subject	Speaker
14:00-14:10	Welcome and Introduction	Meinhard Simon
14:10-15:15	Prorocentrum minimum interactions with bacteria	Johannes Mansky
	Transcriptomics	Daniele de Corte, Jutta Niggemann
	Metabolomics	Irene Wagner-Döbler
	Update on genome assembly	Zhi-Luo Deng
15:15-15:25	Break	
15:25-15:55	Interactions of <i>T. rotula</i> and bacteria	Tran Quoc Den
15:55-16:25	Growth characteristics of <i>T. rotula</i>	Sara Billerbeck
16:25-17:00	Outlook to the remaining funding period	Meinhard Simon
17:00	End	

Transregional Collaborative Research Centre (TRR 51)

Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:

Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria

**Integrated Research Training Group  
of the CRC Roseobacter**



## **Final SFB Roseobacter PhD Symposium 2022**

### *Preliminary Agenda*

**Date:** Wednesday **27.04.2022**

**Time:** Start 11:00 – 20:00

**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organisers:** Ferdinand Esser, Thorsten Dittmar, Elisabeth Härtig and  
Meinhard Simon

**Purpose:** Final meeting of all SFB PhDs, networking event with former SFB  
members (PhDs) from all three SFB funding periods I: 2010-2013  
/ II: 2014-2017 / III: 2018-2021(22)

**Contact:** F. Esser ([ferdinand.esser@uni-oldenburg.de](mailto:ferdinand.esser@uni-oldenburg.de))  
T. Dittmar ([thorsten.dittmar@uni-oldenburg.de](mailto:thorsten.dittmar@uni-oldenburg.de))

**Programme:**  
**Wednesday 27. April 2022**

**Progress report of SFB PhDs: "How did your specific findings contribute to the SFB Roseobacter?" and meet SFB Alumni**

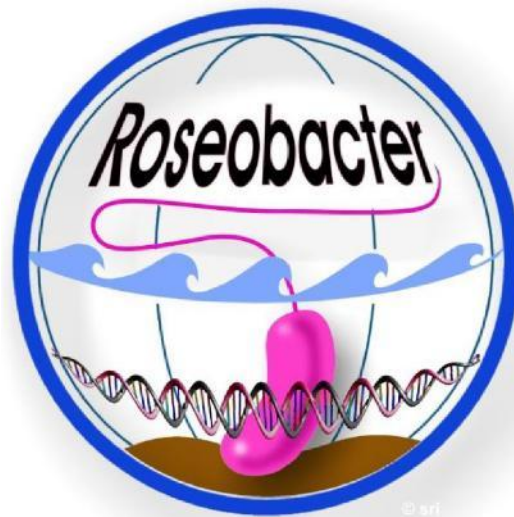
<i>Time</i>	<i>Subject</i>	<i>Speaker</i>
10:20-11:00	Arriving, get together, coffee and tea, light breakfast	
11:00-11:10	Welcome and Introduction	Elisabeth Härtig Ferdinand Esser
11:10-11:40	SFB Roseobacter from the beginning (SFB funding periods I: 2010-2013 / II: 2014-2017 / III: 2018-2021(22))	Meinhard Simon
11:40-12:00	Lytic bacteriophages infecting marine Rhodobacteraceae	Vera Bischoff
12:00-12:20	Comaraderie among Cyanobacteria	Pia Marter
12:20-12:40	Nanomolar responsiveness of marine <i>Phaeobacter inhibens</i> DSM 17395 toward amino acids	Kristin Kalvelage
12:40-13:00	Talk title	Johannes Mansky
13:00-14:00	Lunch	
14:00-14:20	Talk title	Lukas Birnes
14:20-14:50	Talk title	Carsten Reuse
14:50-15:10	Talk title	Felix Milke
15:10-15:30	Proteomics of <i>Procoentrum minimum</i>	Jana Kalvelage
15:30-15:50	From Roseobacter to Archaea and beyond	Marion Pohlner
15:50-16:20	Coffee Break / Poster Session	
16:20-16:40	Interactions of diatom <i>Thalassiosira rotula</i> and bacteria: Colonization patterns	Đặng Trần Quốc
16:40-17:00	Talk title	Alina Rommerskirch
17:00-17:20	Insight into the actual working field	Miriam Becker
17:20-17:40	Main findings within the SFB and insight into the actual working field (academic or non-academic career path)	Gerrit Wienhausen
17:40-18:00	"Vitamin B12 and organic substrate cross-feeding between B12 prototrophic bacteria and <i>Thalassiosira pseudonana</i> "	Sabiha Sultana
18:00-18:15	Closing	Thorsten Dittmar
18:30-20:00	Dinner @ Ols Brauhaus (Stau 34, Oldenburg)	
20:00-22:00	informal get together	

Transregional Collaborative Research Centre (TRR 51)

**Ecology, Physiology and Molecular Biology of the *Roseobacter* clade:**

**Towards a Systems Biology Understanding of a  
Globally Important Clade of Marine Bacteria**

[www.roseobacter.de](http://www.roseobacter.de)



**17<sup>th</sup> Status Seminar  
8 June 2022**

***Final Agenda***

**Date:** 8<sup>th</sup> June 2022  
**Time:** Start 9:00  
**Venue:** BRICS  
Technische Universität Braunschweig  
Rebenring 56,  
38106 Braunschweig

## 7. June 2022 Tuesday

18:30 Dinner at Parco

## 8. June 2022 Wednesday

Time	Subject	Speaker/Chair
09:00-09:10	Arrival and informal get together	
09:10-09:15	Welcome and Introduction	Dieter Jahn
09:15-09:30	Ecological mechanisms for establishing biogeographic patterns of microbial communities in the Pacific and new insights into how roseobacters and other bacteria share vitamin B12 with other microbes	Meinhard Simon
09:30-09:45	Organosulfur cycling in salt marsh sediments	Dennis Tebbe
09:45-10:00	Distribution, evolution and compatibility of RepABC-type plasmids in Rhodobacterales	Lukas Birnes
10:00-10:15	Metagenomic insights into marine mat-forming cyanosphere - Evolution of Coleofasciculus and the wealth of associated heterotrophs	Pia Marter
10:15-10:30	Summing up: Bioinformatic methods developed in project A6	Jan Meier-Kolthoff
10:30-10:50	Coffee Break	
10:50-11:05	Extrachromosomal location and horizontal transfer of ribosomal genes in Sulfitobacter	Heike Freese
11:05-11:20	Distinguishing molecular imprints from local processes vs. simple mixing in deep ocean dissolved organic matter composition	Sarah Bercovici
11:20-11:35	Latitudinal and depth gradients along the Pacific Ocean: Bacterial and archaeal core communities	Jacqueline Hollensteiner
11:35-11:50	Chemical and biological aspects of NAMEs produced by Roseobacter Group members	Janina Leinberger
11:50-12:05	Transcriptome analysis of a <i>P. minimum</i> and <i>D. shibae</i> coculture	Johannes Mansky
12:05-14:00	Lunch Poster Session	break
14:00-14:15	Role of ClpXP protease in regulation of photosynthesis genes: identification and verification of ClpXP substrates of <i>Dinoroseobacter shibae</i>	Alina Rommerskirch
14:15-14:30	Lytic bacteriophages infecting marine Rhodobacteraceae	Vera Bischoff

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14:30-14:45	DMSOP Lyases	Anuj Chhalodia
14:45-15:00	The nucleus of <i>P. minimum</i>	Jana Kalvelage/Lars Wöhlbrand
15:00-15:20	Coffee Break	
15:20-15:35	Algal volatiles and more	Stefan Schulz
15:35-15:50	Metabolic characterization of <i>P. minimum</i> under different conditions	Carsten Reuse
15:50-16:05	Emergent Diversity and Persistent Turnover in Evolving Microbial Cross-Feeding Networks	Leonhard Lücken
16:05	Conclusion	Meinhard Simon
17:00	<b>End of the Symposium</b>	

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# Closing Symposium

## Ecology, Physiology and Molecular Biology of the *Roseobacter* group:

### Towards a Systems Biology Understanding of a Globally Important Group of Marine Bacteria



#### *Final program*

**Venue:** Alter Landtag zu Oldenburg,  
Theodor-Tantzen-Platz 8,  
26122 Oldenburg

**Organising committee:**

Meinhard Simon, Katinka Hoppe, Leon Dlugosch, Irene Wagner-Döbler

**Contact:** Meinhard Simon ([m.simon@icbm.de](mailto:m.simon@icbm.de)),  
Katinka Hoppe ([katinka.hoppe@uol.de](mailto:katinka.hoppe@uol.de))



## Program

### 4 September 2022, Sunday

#### Arrival

18:00 – informal get together at a restaurant in Oldenburg

### 5 September 2022, Monday

<b>Time</b>	<b>Subject</b>	<b>Speaker</b>
9:00-9:15	<b>Welcome and Introduction</b>	Meinhard Simon
9:15-9:45	A holistic perspective on marine microbial systems	Jed Fuhrman, USC Los Angeles
<b>Ecology and Evolution</b>		
9:45-10:15	Ecological significance, biogeography and physiology of the <i>Roseobacter</i> group in pelagic systems	Meinhard Simon et al.
10:15-10:45	Distribution, metabolic capacities and phage-host interactions of the <i>Roseobacter</i> group in marine sediments	Marion Pohlner et al.
10:45-11:15	Coffee break	
11:15-11:45	Assessment and exploitation of the metabolic potential and molecular characterization of uncultivated members of the <i>Roseobacter</i> group	Rolf Daniel et al.
11:45-12:15	Extrachromosomal, extraordinary and essential: The biology of roseobacters from a plasmid point of view	Jörn Petersen, Silke Pradella et al
12:15-12:45	Adaptation of the <i>Roseobacter</i> group to the diatom phycosphere	Shady Amin, NYU Abu Dhabi
12:45-14:00	Lunch break	
14:00-14:30	Phylogenomics and functional genomics of the <i>Roseobacter</i> group	Markus Göker et al.
14:30-15:00	Population structure and divergence in the <i>Roseobacter</i> group – implications for ecology and evolution	Heike Freese, Jörg Overmann
15:00-15:30	Marine microbiology and data science approaches	A. Murat Eren HIFMB Oldenburg
15:30-16:00	Coffee break	
16:00-16:30	Linking the exometabolome of pelagic organisms of the <i>Roseobacter</i> group to marine dissolved organic matter	Jutta Niggemann, Meinhard Simon, Thorsten Dittmar et al

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### Genetics and Physiology

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16:30-17:00	Function and significance of secondary metabolites of <i>Roseobacter</i> spp. for interactive relationships	Thorsten Brinkhoff et al.
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17:00-19:00	Poster session	
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19:00	Symposium dinner	
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### 6 September 2022 Tuesday

Time	Subject	Speaker
9:00-9:30	Adaptive mechanisms that provide competitive advantages to marine bacteria during microalgal blooms	Thomas Schweder, Univ of Greifswald
9:30-10:00	Sulfur Metabolism in Marine Bacteria	Jeroen Dickschat
10:00-10:30	The genome of <i>Prorocentrum cordatum</i>	Irene Wagner-Döbler et al.
10:30-11:00	Coffee break	
11:00-11:30	Regulatory networks for the adaptation of <i>Dinoroseobacter shibae</i> to changes in oxygen, iron and light	Dieter Jahn, Elisabeth Härtig et al.
11:30-12:00	Dual phototrophy in <i>Sphingomonas glacialis</i> AAP5 isolated from an alpine lake	Michal Koblizek, CAS, Trebon
12:00-12:30	Bacteriophages of the <i>Roseobacter</i> group	Cristina Moraru et al.
12:30-14:00	Lunch break	
<b>Systems Biology</b>		
14:00-14:30	Metabolic capacities and adaptability of <i>Phaeobacter inhibens</i> DSM 17395	Ralf Rabus et al.
14:30-15:00	Secondary metabolite mediated interactions between bacteria of the <i>Roseobacter</i> group and other organisms	Stefan Schulz et al.
15:00-15:30	Talking with molecules: Marine bacteria and microalgae	Mo Seyedsayamdost, Princeton University
15:30-16:00	Coffee break	
16:00-16:30	Metabolic characterization of <i>Prorocentrum cordatum</i>	Karsten Hiller et al.
16:30-17:00	The phyco-microbiome of <i>Prorocentrum cordatum</i> – friend or foe?	Irene Wagner-Döbler, Ralf Rabus et al.
17:00-17:30	Influence of <i>Phaeobacter</i> spp. on marine algal health and microbiome assembly	Suhelen Egan, UNSW, Sydney
17:30-18:00	Modelling of physiological bioenergetics and global biogeography of the <i>Roseobacter</i> group	Bernd Blasius et al.
18:00-18:30	Temporal and spatial signaling in phytoplankton / bacteria interactions	Georg Pohnert, University of Jena
18:30-19:00	Closing remarks	

## List of posters

A1

**Tran Quoc Den, Thomas R. Neu, Sabiha Sultana, Helge-A. Giebel, Meinhard Simon, Sara Billerbeck:**

Distinct glycoconjugate cell surface structures make the pelagic diatom *Thalassiosira rotula* an attractive habitat for bacteria

Leon Dlugosch, Anja Poehlein, Bernd Wemheuer, Birgit Pfeiffer, Thomas H. Badewien, Rolf Daniel, Meinhard Simon:

Significance of gene variants for the functional biogeography of the near-surface Atlantic Ocean microbiome.

Felix Milke, Irene Wagner-Döbler, Gerrit Wienhausen, Meinhard Simon:

Selection, drift and community interactions shape microbial biogeographic patterns in the Pacific Ocean.

A2

**Dennis Alexander Tebbe, Charlotte Gruender, Martin Könneke, Bert Engelen, Hendrik Schäfer:**

DMS from DMSO reduction fuels methanogenesis in salt marsh sediments

A5

Lukas Birmes, Henner Brinkmann, Heike Freese, Jörn Petersen:

The astonishing wealth of RepABC-type plasmids in *Rhodobacterales*

Pia Marter, Sixing Huang, Heike M. Freese, Henner Brinkmann Jörn Petersen:

Metagenomic insights into the marine mat-forming cyanosphere – *Coleofasciculus* and associated heterotrophic bacteria.

A6

Jan Meier-Kolthoff and Markus Göker

Overall research highlights from project A6: Phylogenomics & functional genomics of the Roseobacter clade

A8

Sabiha Sultana, Stefan Bruns, Heinz Wilkes, Meinhard Simon, Gerrit Wienhausen:

Vitamin B<sub>12</sub> is not shared by all marine prototrophic bacteria with their environment

B2

Martine Berger, Kathrin Schäfer, Jan Tebben, Jan Meier-Kolthoff, Tilmann Harder, Markus Göker, Thorsten Brinkhoff:

**Bacterial siderophore biosynthesis cluster traveling across genomes and environments**

B7

Anuj Chhalodia and Jeroen S. Dickschat:  
Sulfur Metabolism in Marine Bacteria

C1

A. Weiten et al.

Nanomolar responsiveness of marine *Phaeobacter inhibens* DSM 17395 toward carbohydrates and amino acids.

C5

Kalvelage et al.

The enigmatic nucleus of the marine dinoflagellate *Prorocentrum cordatum*

### **Others**

Jürgen Tomasch :

**Clustered gene orientation bias on *Gemmatimonadota* chromosomes**

#### 4. Complete list of publications of TRR51

1. Arahal DR, Busse H-J, Bull CT, Christensen H, Chuvochina M, Dedysh SN, Fournier P-E, Konstantinidis KT, Parker CT, Rosselló-Móra R, Ventosa A, **Göker M** (2023) Judicial Opinion 128. *Internat J System Evol Microbiol* 73: 5797 (<https://doi:10.1099/ijsem0.005797>). [A6]
2. Aßhauer KP, **Wemheuer B**, **Daniel R**, Meinicke P (2015) Tax4Fun: predicting functional profiles from metagenomic 16S rRNA data. *Bioinformatics* 31: 2882-2884 (<https://doi.org/10.1093/bioinformatics/btv287>). [Z02]
3. **Bakenhus I**, **Dlugosch L**, **Billerbeck S**, **Giebel HA**, **Milke F**, **Simon M** (2017) Composition of total and cell-proliferating bacterioplankton community in early summer in the North Sea – roseobacters are the most active component. *Frontiers in Microbiology* 8:1771. (<https://doi:0.3389/fmicb.2017.01771>) [A1]
4. **Bakenhus I**, **Dlugosch L**, **Giebel HA**, **Beardsley C**, **Simon M**, **Wietz M** (2018) Distinct biogeographic patterns of bacterioplankton composition and single-cell activity between the subtropics and Antarctica. *Environ Microbiol* 20/8, Special Issue: 3100-3108 (<https://doi.org/10.1111/1462-2920.14383>). [A1]
5. **Bakenhus I**, **Voget S**, **Poehlein A**, **Brinkhoff T**, **Daniel R**, **Simon M** (2018) Genome sequence of *Planktotalea frisia* type strain (SH6-1T), a representative of the *Roseobacter* group isolated from the North Sea during a phytoplankton bloom. *Stand Gen Sci* 13: 7, (<https://doi.org/10.1186/s40793-018-0311-5>) [A1, Z02]
6. **Bakenhus I**, **Wemheuer B**, **Akyol P**, **Giebel HA**, **Dlugosch L**, **Daniel R**, **Simon M** (2019) Distinct relationships between fluorescence *in situ* hybridization- and rRNA gene- and amplicon-based sequencing data of bacterioplankton lineages. *System Appl Microbiol* 42/5: article 126000 (<https://doi.org/10.1016/j.syapm.2019.06.005>). [A1, Z02]
7. **Balmonte JP**, **Simon M**, **Giebel HA**, **Arnosti C** (2021) A sea change in microbial enzymes: Heterogeneous latitudinal and depth-related gradients in bulk water and particle-associated enzymatic activities from 30°S to 59°N in the Pacific Ocean. *Limnol Oceanogr* 66: 3489-3507 (<https://doi.org/10.1002/lno.11894>). [A1]
8. **Balmonte JP**, **Giebel HA**, **Arnosti C**, **Simon M**, **Wietz M** (2024) Distinct bacterial succession and functional response to algalinate in the South, Equatorial, and North Pacific Ocean. *Environ Microbiol* 26:e16594 (<https://DOI:10.1111/1462-2920.16594>) [A1]
9. **Bartling P**, **Brinkmann H**, **Bunk B**, **Overmann J**, **Göker M**, **Petersen J** (2017) The composite 259-kb plasmid of *Martelevella mediterranea* DSM 17316<sup>T</sup> – a natural replicon with functional RepABC modules from *Rhodobacteraceae* and *Rhizobiaceae*. *Frontiers in Microbiology* 8: 1787. (<https://doi:10.3389/fmicb.2017.01787>). [A5, A6, A7]
10. **Bartling P**, **Vollmers J**, **Petersen J** (2018). The first world swimming championships of roseobacters - Phylogenomic insights into an exceptional motility phenotype. *Syst. Appl. Microbiol.* 41: 544-55 (<https://doi.org/10.1016/j.syapm.2018.08.012>). [A5]
11. **Bartsch, A.**, **Bunk, B.**, **Haddad, I.**, **Klein, J.**, **Münch, R.**, **Johl, T.**, **Kärst, U.**, **Jänsch, L.**, **Jahn, D.** & **Retter, I** (2012) GeneReporter - Sequence based document retrieval and annotation *Bioinformatics*, **27:** 1034-1035 (<https://doi.org/10.1093/bioinformatics/btr047>). [A7, INF]
12. **Behringer, M.**, **Plötzky, L.**, **Baabe, D.**, **Zaretzke, M.-K.**, **Schweyen, P.**, **Bröring, M.**, **Jahn, D.**, & **Härtig, E.** (2020) *RirA* of *Dinoroseobacter shibae* senses iron via a [3Fe-4S]<sub>1+</sub> cluster coordinated by three cysteine residues. *Biochem J* 477: 191–212 (<https://doi.org/10.1042/BCJ20180734>). [B5]
13. **Beier, N**, **Kucklick, M**, **Fuchs, S.**, **Mustafayeva, S.**, **Behringer, M.**, **Härtig, E.**, **Jahn, D.**, & **Engelmann, S.** (2021) Adaptation of *Dinoroseobacter shibae* to oxidative stress and

- the specific role of RirA, PLOS ONE, 16, e0248865 (<https://doi.org/10.1371/journal.pone.0248865>). [C6, B5]
14. **Bercovici SK, Dittmar T, Niggemann J** (2022) The detection of bacterial exometabolites in marine dissolved organic matter through ultrahigh-resolution mass spectrometry. *Limnol Oceanogr: Methods* 20: 350-360 (<https://doi.org/10.1002/lom3.10491>). [A8]
  15. **Bercovici SK, Wiemers M, Dittmar T, Niggemann J** (2023) Disentangling Biological Transformations and Photodegradation Processes from Marine Dissolved Organic Matter Composition in the Global Ocean. *Environ Sci Technol* 57: 20975-21484 (<https://doi.org/10.1021/acs.est.3c05929>) [A8]
  16. **Bercovici SK, Dittmar T, Niggemann J** (2023) Processes in the surface ocean regulate dissolved organic matter distributions in the deep. *Global Biogeochemical Cycles* 37: e2023GB007740. (<https://doi.org/10.1029/2023GB007740>) [A8]
  17. **Bergen, N., P. Krämer J. Romberg, A. Wichels, G. Gerlach, T. Brinkhoff.** 2022. Shell disease syndrome is associated with reduced and shifted epibacterial diversity on the carapace of the crustacean *Cancer pagurus*. *Microbiology Spectrum* 10: e0341922. (<https://doi:10.1128/spectrum.03419-22>). [B2]
  18. **Berger M, Brock N, Liesegang H, Dogs M, Preuth I, Simon M, Dickschat J, Brinkhoff T** (2012) Genetic analysis of the upper phenylacetate catabolic pathway in the production of tropodithietic acid by *Phaeobacter gallaeciensis*. *Appl Environ Microbiol* 78(10): 3539-3551. (<https://DOI:10.1128/AEM.07657-11>). [A1, B2, B7]
  19. **Berger M, Neumann A, Schulz S, Simon M, Brinkhoff T** (2011) Tropodithietic acid production in *Phaeobacter gallaeciensis* is regulated by N-acyl homoserine lactone-mediated quorum sensing. *J Bacteriol* 193: 6576–6585 (<https://doi:10.1128/JB.05818-11>). [A1, B2, C2]
  20. **Beyersmann PG, Chertkov O, Petersen J, Fiebig A, Chen A, Pati A, Ivanova NN, Lapidus A, Goodwin LA, Chain P, Detter JC, Rohde M, Gronow S, Kyrpides NC, Woyke T, Simon M, Göker M, Klenk H-P, Brinkhoff T** (2013) Genome sequence of *Phaeobacter caeruleus* type strain (DSM 24564), a surface-associated member of the marine *Roseobacter* clade. *Standards in Genomic Sciences* 8: 403-419 (<https://doi:10.4056/sigs.3927626>). [A1, A5, A6, B2]
  21. **Beyersmann PG, Tomasch J, Son K, Stocker R, Göker M, Wagner-Döbler I, Simon M, Brinkhoff T** (2017) Dual function of tropodithietic acid as antibiotic and signaling molecule in quorum sensing. *Scientific Reports*, 7: 730 (<https://doi:10.1038/s41598-017-00784-7>). [A1, A6, B2, B4]
  22. **Billerbeck S, Wemheuer B, Voget S, Poehlein A, Giebel HA, Brinkhoff T, Gram L, Jeffrey WH, Daniel R, Simon M** (2016) Biogeography and environmental genomics of the *Roseobacter* group affiliated pelagic CHAB-I-5 lineage. *Nature Microbiol.* 1: Article no. 16063 (<https://DOI:10.1038/NMICROBIOL.2016.63>). [A1, B2, Z02]
  23. **Billerbeck S, Orchard J, Tindall BJ, Giebel, HA, Brinkhoff, T, Simon M** (2015) Description of *Octadecabacter temperatus* sp. nov., isolated from the southern North Sea, emended description of the genus *Octadecabacter* and reclassification of *Octadecabacter jejudonensis* (Park & Yoon, 2014) as *Pseudooctadecabacter jejudonensis* gen. nov., comb. nov. *Int. J. Syst. Evol. Microbiol.* 65: 1967-1974 (<https://DOI:10.1038/NMICROBIOL.2016.63>). [A1, B2]
  24. **Birmes L, Freese HM & Petersen J** (2021) RepC<sub>sol</sub>i: a novel promiscuous plasmid type of Rhodobacteraceae mediates horizontal transfer of antibiotic resistances in the ocean. *Environ Microbiol.* 23: 5395-5411 ((<https://doi.org/10.1111/1462-2920.15380>)). [A5, A8]
  25. **Bischoff V, Bunk B, Meier-Kolthoff J, Spröer C, Poehlein A, Dogs M, Nguyen M, Petersen J, Daniel R, Overmann J, Göker M, Simon M, Brinkhoff T, Moraru C**

- (2019) Cobaviruses – a new globally distributed phage group infecting Rhodobacteraceae in marine ecosystems. *ISME J*: 13, 1404–1421 (<https://doi.org/10.1038/s41396-019-0362-7>). [A1, A5, A6, A7, B2, B6, Z02]
26. **Blaženović, I.**, Kind, T., Torbašinović, H., Obrenović, S., Mehta, S.S., Tsugawa, H., Wermuth, T., Schauer, N., Jahn, M., Biedendieck, R., **Jahn, D.**, Fiehn, O. (2017) Comprehensive comparison of in silico MS/MS fragmentation tools of the CASMI contest: database boosting is needed to achieve 93% accuracy. *J. Cheminform.*, **9**: **32** (<https://link.springer.com/article/10.1186/s13321-017-0219-x>). [INF]
  27. **Blaženović, I.**, Kind, T., Sa, M., Ji, J., Vaniya, A., Wancewicz, B., Roberts, B., Torbasinovic, H., Lee, T., Mehta, S., Showalter, M., Song, H., Kwok, J., **Jahn, D.**, Kim, J. & Fiehn, O. (2019) Structure annotation of all mass spectra in untargeted metabolomics. *Anal. Chem.*, **91**: 2155-2162 (<https://doi.org/10.1021/acs.analchem.8b04698>). [INF]
  28. **Breider S, Freese HM, Spröer C, Simon M, Overmann J, Brinkhoff T** (2017) *Phaeobacter porticola* sp. nov., an antibiotic producing bacterium isolated from a harbor in the southern North Sea. *Int J Syst Evol Microbiol* **67**, 2153-2159 (<https://doi.org/10.1099/ijsem.0.001879>). [A1, A8, B2]
  29. **Breider S, Scheuner C, Schumann P, Fiebig A, Petersen J, Pradella S, Klenk H-P, Brinkhoff T, Göker M** (2014) Genome-scale data suggest reclassifications in the *Leisingera-Phaeobacter* cluster including proposals for *Sedimentitalea* gen. nov. and *Pseudophaeobacter* gen. nov. *Frontiers in Microbiology* **5**: 416 (<https://doi.org/10.3389/fmicb.2014.00416>). [A1, A5, A6, B2]
  30. **Breider S, Teshima H, Petersen J, Fiebig A, Chertkov O, Dalingault H, Chen A, Pati A, Goodwin LA, Chain P, Detter JC, Ivanova NN, Lapidus A, Rohde M, Tindall BJ, Kyrpides NC, Woyke T, Simon M, Göker M, Klenk HP, Brinkhoff T** (2014) Complete genome sequence of *Leisingera nanhaiensis* strain DSM 24252<sup>T</sup> isolated from marine sediment. *Standards in Genomic Sciences* **9**: 687-703 (<https://doi.org/10.4056/sigs.3828824>). [A1, A5, A6, B2]
  31. **Breider S, Sehar S, Berger, M, Thomas T, Brinkhoff, T, Egan S** (2019) Genome sequence of *Epibacterium ulvae* strain DSM 24752<sup>T</sup>, an indigoidine-producing, macroalga-associated member of the marine Roseobacter group. *Environ. Microbiome.* **14**: Article Number: UNSP **4** (<https://link.springer.com/article/10.1186/s40793-019-0343-5>). [B2]
  32. **Brinkmann H, Göker M, Koblížek M, Wagner-Döbler I, Petersen J** (2018) Horizontal operon transfer, plasmids and the evolution of photosynthesis in *Rhodobacteraceae*. *The ISME Journal* **12**: 1994-2010 (<https://doi.org/10.1038/s41396-018-0150-9>). [A5, A6, B4]
  33. **Brock NL, Citron CA, Zell C, Berger M, Wagner-Döbler I, Petersen J, Brinkhoff T, Simon M, Dickschat J** (2013) Isotopically labeled sulfur compounds and synthetic selenium and tellurium analogues to study sulfur metabolism in marine bacteria. *Beilstein J Org Chem* **9**: 942-950 (<https://doi.org/10.3762/bjoc.9.108>). [A5, B2, B4, B7]
  34. **Brock NL, Nikolay, A, Dickschat, JS** (2014) Biosynthesis of the Antibiotic Tropodithietic Acid by the Marine Bacterium *Phaeobacter inhibens*, *ChemComm* **50**, 5487-5489 (<https://doi.org/10.1039/C4CC01924E>). [B7]
  35. **Brock NL, Menke, M, Klapschinski, TA, Dickschat JS** (2014) Marine Bacteria from the Roseobacter Clade Produce Sulfur Volatiles via Amino Acid and Dimethylsulfoniopropionate Catabolism, *Org. Biomol. Chem.* **2014**, **12**, 4318-4323 (<https://doi.org/10.1039/C4OB00719K>) [B7]
  36. **Broy S, Chen C, Hoffmann T, Brock, NL, Nau-Wagner G, Jebbar M, Smits SHJ, Dickschat, JS, Bremer E** (2015) Abiotic Stress Protection by Ecologically Abundant DMSP and its Natural and Synthetic Derivatives: Insights from *Bacillus subtilis*, *Environ. Microbiol.*, **17**, 2362-2378 (<https://doi.org/10.1111/1462-2920.12698>). [B7]

37. **Bruns H**, Crüsemann M, Letzel A-C, Alanjary M, McInerney JO, Jensen PR, **Schulz S**, Moore BS, Ziemert N (2018) Function-related replacement of bacterial siderophore pathways. *ISME J* 12: 320-329 (<https://doi.org/10.1038/ismej.2017.137>). [C2]
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166 (59%) publications with  $\geq 2$  projects

95 (34%) publications with  $\geq 2$  locations

#### Publications without peer review

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Group photo at the kick-off symposium at the Hanse Institute of Advanced Study in Delmenhorst, 13-15 June 2010



Group photo at the closing symposium at the Alte Landtag in Oldenburg, 4-6 September 2022