

CURRICULUM VITAE NICOLE DUBILIER

Address

Max-Planck-Institute for Marine Microbiology (MPI-MM)
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Academic Training

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|------|-----------------------|--|--------|
| 1985 | University of Hamburg | Zoology, Biochemistry, Microbiology | Diplom |
| 1992 | University of Hamburg | Marine Biology | PhD |

Dissertation Title: Adaptations of the Marine Oligochaete *Tubificoides benedii* to Sulfide-rich Sediments: Results from Ecophysiological and Morphological Studies.

Current Position

Director of the Max Planck Institute for Marine Microbiology (MPI-MM)
Head of the Symbiosis Department at the MPI-MM (W3 position)
Professor for Microbial Symbiosis at the University of Bremen, Germany

Academic Positions

Since 2013 Director of the Symbiosis Department at the MPI-MM (W3 position)
Since 2012 Professor at the University of Bremen, Germany
2007 - 2013 Head of the Symbiosis Group at the MPI-MM (W2 position)
2002 - 2006 Coordinator of the International Max Planck Research School of Marine Microbiology
2004 - 2005 Invited Visiting Professor at the University of Pierre and Marie Curie, Paris, France (2 months)
2001 - 2006 Research Associate in the Department of Molecular Ecology at the MPI-MM
1998 - 2001 Postdoctoral Fellow at the MPI-MM in the DFG Project: "Evolution of symbioses between chemoautotrophic bacteria and gutless marine worms"
1997 Parental leave
1995 - 1996 Research Assistant at the University of Hamburg in the BMBF project: "Hydrothermal fluid development and material balance in the North Fiji Basin"
1993 - 1995 Postdoctoral Fellow in the laboratory of Dr. Colleen Cavanaugh, Harvard University, MA, USA in the NSF project "Biogeography of chemoautotrophic symbioses in marine oligochaetes"
1990 - 1993 Research Assistant at the University of Hamburg in the EU project 0044: Sulphide- and methane-based ecosystems.

Major Research Interests

Symbioses between invertebrates and bacteria
Biodiversity, ecology and evolution of marine symbioses
Marine molecular ecology

Recent Awards and Honors (selected examples)

Plymouth Marine Science Medal Lecture, 2019
President Elect of the International Society of Microbial Ecology, 2018
Elected member of EMBO (European Molecular Biology Organization), 2018
Elected member of Leopoldina, German National Academy of Sciences, 2015
Elected member of the European Academy of Microbiology, 2015
Leibniz Prize of the German Research Foundation (DFG), 2014 (highest German research prize)
European Research Council (ERC) Advanced Grant, 2013
Investigator Award of the Gordon and Betty Moore Foundation Marine Microbiology Initiative, 2013
Elected Fellow of the American Academy of Microbiology, elected in 2013
Incoming President of the International Society of Microbial Ecology (Term begins 2019)
Chair (2016-2017) and Vice-Chair (2014-2015) of the American Society of Microbiology General Meetings / ASM Microbe
Chair of first Gordon Research Conference Animal-Microbe Symbioses, June 2015
Opening Keynote Speaker, 2014 Keystone Symposium 'Mechanisms and Consequences of Invertebrate – Microbe Interactions'
Opening Keynote Speaker, 2013 BAGECO (12th Symposium on Bacterial Genetics and Ecology)
Divisional Lecturer (Division I), 2013 American Society of Microbiology General Meeting
Opening Plenary Lecturer, 2010 American Society of Microbiology General Meeting
Awarded membership in AcademiaNet, 2010

Committees and Board Memberships (selected examples)

Board of Governors of GEOMAR, Helmholtz Centre of Ocean Research, Kiel (since 2018)
Board of Haus der Wissenschaft, Bremen (since 2017)
Advisory Committee of the Hamburg Ministry for Science and Research Council for MINT subjects (2016 - 2018)
Board member of MARUM, University of Bremen (since 2007)
Steering Committee of the Symposium of Aquatic Microbial Ecology (SAME) (since 2012)
American Society of Microbiology General Meeting / ASM Microbe Planning Committee (2010-2016)
Steering Committee of International Cooperation in Ridge-Crest Studies (InterRidge) (since 2005)
Chair of the Biology Working Group in InterRidge (2005 – 2007)
Steering Committee of Census of Marine Life Project ChEss (Biogeography of Deep-Water Chemosynthetic Ecosystems) (2006-2010)
Member of the SCOR (Scientific Committee on Oceanic Research) / InterRidge Working Group 135: Hydrothermal Energy Transfer and its Impact on the Ocean Carbon Cycle (since 2008)
Steering Committee of European Census of Marine Life Regional Group (2006 - 2008)
Councilor of the International Symbiosis Society (2003-2009)

Community Service (selected examples)

Panel member European Research Council Starting Grants (2018, 3.5 weeks)
Selection Committee Alexander von Humboldt Professorships (since 2018, 4 days/year)

- Max Planck Society Presidential Committee "Equal Opportunities" (since 2016, 1-2 days/year)
- Max Planck Society Presidential Committee "Junior Scientists" (2014-2017, 8 days/year)
- Max Planck Society selection committee for Max Planck Research Group Leaders (since 2015, 5 days/year)
- Max Planck Society selection committee for Max Planck Lise Meitner Group Leaders (since 2018, 2 days/year)
- Max Planck Society selection committee for Max Planck Directors and Research Group Leaders (since 2014, 7-9 days/year)
- Mentor in Robert Bosch Foundation FastTrack program, University of Bremen "plan m Mentoring in Science", University of Kiel Via:Mento_Ocean, University of Greifswald KarriereWegeMentoring (since 2015, 2 days/year)
- Evaluation Committee of Royal Netherlands Institute for Sea Research (NIOZ) (2017, 5 days)
- Search Committees for junior research group leaders / professors at national and international universities and institutes (2 days/year)

Awards / Stipends

- 2019 Plymouth Marine Science Medal Lecture, 2019
- 2014 Leibniz Prize of the German Research Foundation (DFG)
- 2013 European Research Council (ERC) Advanced Grant Award
- 2013 Investigator Award of the Gordon and Betty Moore Foundation Marine Microbiology Initiative
- Since 2010 Awards for Teaching in the MSc Lecture Series of MarMic (International Max Planck Research School for Marine Microbiology)
- 2009 Gordon Research Conference (GRC) "Hall of Fame" for performance as Chair of the GRC for Applied and Environmental Microbiology in July 2009 (conference ranked in top 10% of all GRC meetings in 2009)
- 1998 Best talk award at the European Marine Biological Symposium, Wilhelmshaven, Germany. "Bacterial symbioses in gutless marine oligochaetes from sulfide-rich, coral reef sediments".
- 1989: Annual research bursar of the Marine Biological Association of the U.K., in the laboratory of Dr. Paul Dando; Research: Calvin-Benson cycle enzyme activities in ectosymbionts of the marine oligochaete *Tubificoides benedii*.
- 1987: NASA Planetary Biology Intern in Laboratory of Dr. Steve Goodwin; Dept. of Microbiology; University of Massachusetts, Amherst; Research: Sulfate-reducing bacteria in an acid bog.
- 1986: 2 year Ph.D. scholarship from the University of Hamburg

Awards for students and postdocs while members of my lab

- 2019 PhD student Benedikt Geier: Best Student Presentation Award at the 35th International Society for Chemical Ecology Annual Meeting
- 2019 PhD student Merle Ücker: Best Talk Prize at the 24th Graduate Meeting on Evolutionary Biology of the German Zoological Society
- 2018 PhD student Benedikt Geier: Mass Spectrometry Imaging award at OurCon VI for best manuscript (<https://www.imabiotech.com/mass-spectrometry-imaging-awards/>)
- 2018 Postdoc Emilia Sogin: Tom Brock Award for best postdoctoral presentation at the 17th International Society for Microbial Ecology Symposium
- 2018 PhD student Maximilian Franke: Best Poster Prize at the 2nd Max Planck PhD Conference for Environmental Microbiology (It MaTer(s))

- 2015 MSc student Miguel Angel Gonzalez: Prize for best thesis defense of class in (International MSc in Marine Biodiversity and Conservation)
- 2014 PhD student Adrien Assié: Poster prize at the Young Researchers in Life Sciences Conference, May 2014 in Paris
- 2014 Postdoc Manuel Kleiner: Friedrich Hirzebruch Prize of the Studienstiftung des deutschen Volkes (German National Academic Foundation)
- 2013 Postdoc Jillian Petersen: Lindeman Award from the American Society for Limnology and Oceanography
- 2011 Postdoc Jillian Petersen: Wolf Vishniac Award for Young Investigators from the International Society for Environmental Biogeochemistry
- 2011 PhD student Dennis Fink: First prize in regional FameLab competition
- 2011 PhD student Dennis Fink: First prize in PodCampus competition 2011
- 2009 PhD student Dennis Fink: Best Student Poster Award at the 4th International Symposium on Chemosynthesis-based Ecosystems
- 2009 PhD student Manuel Kleiner: Poster Award at the Gordon Research Conference for Applied and Environmental Microbiology
- 2007 PhD student Jillian Struck Petersen: Best Student Poster Award at the InterRidge Theoretical Institute for Biogeochemical Interactions at Deep-Sea Vents
- 2007 PhD student Jillian Struck Petersen: Poster Award at the Gordon Research Conference for Applied and Environmental Microbiology
- 2006 PhD student Anna Blazejak: Poster Award at the International Society for Microbial Ecology Meeting
- 2005 PhD student Frank Zielinski: Outstanding Student Paper Award at the American Geophysical Union Fall Meeting
- 2001 PhD student Caroline Muelders: Poster Award at the International Society for Microbial Ecology Meeting

Invited and Plenary Lectures (selected examples since 2010)

- 06/19 Invited discussion leader at the Gordon Research Conference 'Animal-Microbe Symbiosis', USA
- 02/19 Invited speaker at the CMI International Microbiome Meeting, UCSC, San Diego, USA
- 02/19 Plenary speaker at the Microbes in Norwich Meeting, Norwich UK
- 01/19 Opening Keynote Speaker at the 7th Swiss Microbial Ecology Meeting, Lausanne, Switzerland
- 08/18 Invited Convener/speaker at the 17th International Society for Microbial Ecology Symposium, Leipzig, Germany
- 06/18 Keynote speaker at the Gordon Research Seminar Marine Microbes, Lucca, Italy
- 12/17 Invited speaker at the Memorial Symposium for the 33rd International Prize of Biology (Field: Marine Biology), Tokyo, Japan (as 1 of only 10 invited international researchers, shortlisted for prize)
- 11/17 Invited speaker at the Company of Biologists workshop "Symbiosis in the microbial world", West Sussex, UK
- 08/17 Keynote Speaker at the European Society of Evolutionary Biology, Groningen, Holland
- 07/17 Invited Speaker at the Gordon Research Conference 'Animal-Microbe Symbiosis', USA

- 06/07 Invited Speaker at EMBO / EMBL Symposium 'New Approaches and Concepts in Microbiology', Heidelberg
- 04/17 Distinguished Lecturer in Life Sciences, University of Pennsylvania, Huck Institute
- 03/17 Invited speaker at the Institute of Biology Paris-Seine International Symposium 'Symbiosis in evolution, biology and human health', Paris
- 09/16 Plenary speaker at the German Society for Zoology meeting, Kiel
- 08/16 Invited speaker at the International Society of Microbial Ecology (ISME) meeting, Montreal
- 10/15 Invited Kane Lecturer at the Kewalo Marine Laboratory, Pacific Biosciences Research Center, University of Hawaii
- 07/15 Invited speaker at the Gordon Research Conference Applied and Environmental Microbiology, USA
- 06/15 Plenary speaker at the FEMS 6th Congress of European Microbiologists, Holland
- 11/14 Invited speaker at the Danish Microbiology Society, Denmark
- 10/14 Invited speaker at the Agouron Sulfur Cycle Symposium, USA
- 03/14 Invited speaker at the DOE Joint Genome Institute User Meeting, USA
- 02/14 Opening Keynote Speaker at the Keystone Symposium 'Mechanisms and Consequences of Invertebrate-Microbe Interactions, USA
- 06/13 Opening plenary speaker at BAGECO 12 (Bacterial Genetics and Ecology), Slovenia
- 05/13 Divisional Lecturer (Division I) at the American Society of Microbiology General Meeting, USA
- 08/12 Plenary speaker at the International Society for Microbial Ecology (ISME) meeting, Denmark
- 06/12 Invited speaker at the Gordon Research Conference for Marine Microbes, Italy
- 04/12 Invited speaker at Frontiers in the Life Sciences at Cornell University, USA (as 1 of 8 invited female scientists from the life sciences, chosen for their research excellence and achievements)
- 04/12 Invited speaker at the EMBO Meeting on Microbial Sulfur Metabolism, Holland
- 03/12 Invited speaker at the Max Planck Symposium Biodiversity, Berlin, Germany
- 08/11 Invited speaker at the 12th Symposium on Aquatic Microbial Ecology, Germany
- 05/11 Opening plenary lecturer at the 2011 American Society of Microbiology General Meeting, USA
- 12/10 Invited speaker at the Memorial Symposium for the 26th International Prize of Biology (Field: Symbiosis), Tokyo, Japan (as 1 of only 10 invited international researchers, shortlisted for prize)
- 11/10 Invited speaker at the symposium "Symbiotic Interactions", University of Vienna, Austria
- 08/10 Invited speaker at the Gordon Research Conference on Molecular Basis Of Microbial One-Carbon Metabolism, USA
- 03/10 Invitational seminar at Harvard Medical School, USA

Field experience

- 2016 RV Meteor with ROV Quest (M126). Hydrothermal vents on the Mid-Atlantic Ridge between 13° - 15° N (5 weeks). Chief scientist.
- 2014 RV Nautilus with ROV Hercules. Gulf of Mexico (5 days). Principle Investigator (PI): Symbioses in mussels from cold seeps.

- 2011 RV Sonne with ROV Quest (SO216). Manus Basin, West Pacific (5 weeks). PI: Hydrothermal vent symbioses
- 2010 RV Meteor with ROV Quest (M82/3). Northern Mid-Atlantic Ridge (37°N, Menez Gwen hydrothermal vent) (5 weeks). Chief scientist
- 2009 RV Maria S. Merian with ROV Kiel 6000 (MSM10/3). Northern Mid-Atlantic Ridge (15° N, Logatchev hydrothermal vent) (5 weeks). Chief scientist.
- 2008 R/V L'Atalante with ROV Kiel 6000 (replacement of cruise MSM06/2). Hydrothermal vents on the southern Mid-Atlantic Ridge (4-11°S) (5 weeks). PI: Hydrothermal vent symbioses.
- 2006 R/V Meteor with ROV Quest (M68/1). Hydrothermal vents on the southern Mid-Atlantic Ridge (4-11° S) (5 weeks). PI: Hydrothermal vent symbioses.
- 2005 R/V Meteor with ROV Quest (M64/2). Northern Mid-Atlantic Ridge (15° N, Logatchev hydrothermal vent) (5 weeks). PI: Hydrothermal vent symbioses.
- 2002 Institute for Marine Sciences (HYDRA) on Elba, Italy. PI: Ecology of oligochaete symbioses.
- 1999 Caribbean Marine Research Center on Lee Stocking Island, The Bahamas. PI: Collection of gutless oligochaetes.
- 1994 Lizard Island und Heron Island Research Station, Australia. PI: Collection of gutless oligochaetes.
- 1993 Field station of the Smithsonian Institute on Carrie Bow Cay, Belize. PI: Collection of gutless oligochaetes.
- 1992 Bermuda Natural History Museum, Bermuda. PI: Collection of gutless oligochaetes.
- 1988 R/V Challenger. Continental shelf in the Gulf of Biscaya. Symbioses in tube worms.

Conference Organisation

- 2017 Co-Chair (with Margaret McFall-Ngai) of the CIFAR / GBMF funded workshop "Symbiotic Interactions in the Oceans", Hawaii, USA
- since 2016 Local organizing committee of the International Society of Microbial Ecology (ISME) 2018 meeting in Leipzig, Germany
- since 2016 Scientific committee of the 6th International Symposium on Chemosynthesis-Based Ecosystems (Woods Hole, USA)
- since 2014 Chair (2016-2017) and Vice-Chair (2014-2015) of the American Society of Microbiology General Meetings / ASM Microbe
- 2015 Chair of the Gordon Research Conference (GRC) for Animal – Microbe Symbioses (newly established GRC, proposal by ND accepted by GRC Organization in 2014)
- since 2013 Organizing committee of the Symposium for Aquatic Microbial Ecology (SAME)
- 2011 Convener of 2 sessions ('Evolution of Diversity: From Genes to Populations' and 'Symbiosis') at the 2011 General Meeting of the American Society of Microbiology, New Orleans, USA
- 2009 Chair of the Gordon Research Conference (GRC) for Applied and Environmental Microbiology, MA, USA (ranked in top 10% of all GRCs in 2009)
- 2007 Vice chair of the Gordon Research Conference for Applied and Environmental Microbiology, MA, USA.
- 2005 Organizing committee of the "Third International Symposium on Hydrothermal Vent and Seep Biology". La Jolla, California, USA.

- 2003 Organizer of the session "Symbiosis and Syntrophy in Extreme Environments" at the 2003 Aquatic Sciences Meeting "Extreme Environments on Earth and Beyond" of the American Society of Limnology and Oceanography. Salt Lake City, USA.

Funding for Research and Cruises

- 2019-2025 MARUM Cluster of Excellence "The Ocean Floor – Earth's Uncharted Interface" (funded by the German Research Foundation). 3 PhD students, consumables, travel, etc.
- 2016-2019 DFG (Germany Research Foundation) Collaborative Research Center "Origin and Function of Metaorganisms". 1 PhD student
- 2014-2021 Leibniz Prize of the German Research Foundation (2.5 M for 7 years)
- 2014-2019 European Research Council Advanced Grant (2.5 M€ for 5 years)
- 2013-2018 Gordon and Betty Moore Foundation Marine Microbial Initiative Investigator Award (~ US\$ 2M for 5 years)
- 2012-2018 MARUM Cluster of Excellence "The Ocean in the Earth System" (funded by the German Research Foundation): Geosphere – Biosphere Interactions. 1 Postdoc, 1 PhD student, consumables, travel, etc.
- 2012-2014 EU Marie Curie Intra-European Fellowship for Dr. Harald Gruber. Title: Evolution and ecophysiology of *Cand. Riegeria galateiae* - the thiotrophic alphaproteobacterial symbiont in *Paracatenula galateia* flatworms. 1 Postdoc, consumables, travel, etc.
- 2011 Community Sequencing Program of the DOE Joint Genome Institute (USA) "Understanding novel pathways for energy and carbon use in bacterial symbionts of gutless marine worms" for the sequencing of 20 symbiont genomes from gutless marine oligochaetes.
- 2010-2014 EU Marie Curie Initial Training Network Symbiomics: Molecular ecology and evolution of bacterial symbionts. Coordinator. 14 PhD and 1 Postdoc position for all partners, consumables, travel, management, etc.
- 2010 Research cruise with the RV Meteor to the Menez Gwen hydrothermal vent field on the Mid-Atlantic Ridge, with ROV Quest (Marum)
- 2010 Research cruise with the RV Poseidon to the Menez Gwen hydrothermal vent field on the Mid-Atlantic Ridge, with ROV Cherokee and AUV Bremen (Marum)
- 2007-2012 MARUM Cluster of Excellence "The Ocean in the Earth System" (funded by the German Research Foundation): Geosphere – Biosphere Interactions. 1 Postdoc, consumables, travel, etc.
- 2003-2009 RIDGE Priority Program of the German Research Foundation: Geobiological coupling between hydrothermal vent fluids and symbiotic primary producers at spreading axes. 1 PhD student, 1 technician, consumables, travel, etc.
- 2009 Research cruise with the RV Merian to the Logatchev hydrothermal vent field on the Mid-Atlantic Ridge with ROV and AUV (SPP 1144 cruise).
- 2009 Genoscope, France: Metagenomic analysis of mussel symbionts.
- 2005-2009 EU Marie Curie Early Stage Training in Marine Microbiology (MarMic). 1 PhD student, consumables, travel, etc.
- 2004-2008 EU Marie Curie Research Training Network MOMARNET: Monitoring deep sea floor hydrothermal environments on the Mid-Atlantic Ridge. 1 PhD student, consumables, travel, etc.

- 2004-2006 EU Marie Curie Intra-European Fellowship for Dr. Florence Pradillon. Title: Larvae In Situ Tracking: detection and identification of early-life-stages of marine organisms using in situ hybridisation with oligonucleotide probes. 1 Postdoc, consumables, travel, etc.
- 2005 Community Sequencing Program of the DOE Joint Genome Institute (USA): Metagenomic analysis of bacterial symbionts in a gutless marine oligochaete.

Outreach and media activities (selected examples)

- ASM 'Women in Microbiology' book,
<https://www.asmscience.org/content/book/10.1128/9781555819545.chap7>
- Radio Deutschlandfunk, April 2019, Zwischentöne, 1.5 hour interview,
https://www.deutschlandfunk.de/musik-und-fragen-zur-person-die-meeresbiologin-nicole.1782.de.html?dram:article_id=442972
- Elbphilharmonie 'Music & Science' talk, with Hamburg Philharmonic State Orchestra, February 2018 (<https://www.elbphilharmonie.de/en/whats-on/hamburg-philharmonic-state-orchestra-musik-und-wissenschaft-music-science/9188>)
- TV 3SAT 'Scobel', studio guest, February 2018
(<http://www.3sat.de/page/?source=/scobel/sendungen/196136/index.html>)
- TV ARD 'W wie Wissen', April 2017 (<http://www.daserste.de/information/wissen-kultur/w-wie-wissen/supermuschel-100.html>)
- Video blog from research expedition with RV Meteor with ROV Quest (M126). Hydrothermal vents on the Mid-Atlantic Ridge between 13° - 15° N (5 weeks). Chief scientist.
(http://www.mpi-bremen.de/en/Research_cruise_visits_deep-sea_hot_vents_6.html)
- Invited talk and round table discussion at Max Planck Society Länderforum in Bremen, October 2016
- Comment piece for Nature: Dubilier N, McFall-Ngai M, Zhao L. 2015. Create a global microbiome effort. Nature 526: 631-634
- TheScientist, Profile of research career, 2015 (<http://www.the-scientist.com/?articles.view/articleNo/43337/title/Sold-on-Symbiosis/>)
- 6th Science Slam Bremen, guest speaker, October 2015.
(<https://www.youtube.com/watch?v=ppW4CzvRFGA>)
- TV ARD alpha 'Campus Talks', July 2015 (<http://www.br.de/fernsehen/ard-alpha/sendungen/campus-talks/campus-talks-dubilier-102.html>)
- TV ARD 'Planet Wissen' one hour live interview, 2015 (<http://www.planet-wissen.de/sendungen/pwsegeheimnisvolletiefsee100.html>)
- Invited lecture at Rotary Club Hamburg, April 2015
- Plenary speaker Darwin Day, University of Kiel (for ca. 1200 high school children), November 2015
- Invited lecture at Rector's Circle of the University of Bremen, November 2015
- Invited lecture at Caesarium, Bonn, November 2015
- Essay for the German Research Foundation Magazine 'Forschung', 2014
(http://www.dfg.de/sites/flipbook/forschung/for_14_02/#/24/)
- Acceptance speech for Leibniz Prize, 2014 (invited by DFG to give an acceptance speech on behalf of all prize winners):
http://www.dfg.de/download/pdf/geoerderte_projekte/preistraeger/gwl-preis/2014/dankesrede_dubilier.pdf
- Invited lecture in the Dresden "Wissenschaft im Rathaus" lecture series for the general public, December 2014
- Invited lecture at the Carl Friedrich von Siemens Stiftung, November 2014

Interview AcademiaNet, 2014 (<http://www.spektrum.de/alias/interview/wir-leben-in-goldenen-zeiten-fuer-die-marine-mikrobiologie/1253408>)

IdeenExpo Hannover, 2013. Research demonstrations and live interview with Ranga Yogeshwar in his show "Wissen LIVE"

American Academy of Microbiology Interview 2013 (<http://academy.asm.org/index.php/news-views/interviews-with-fellows/675-nicole-dubilier>)

Featured scientist in undergraduate textbook 'Microbiology: An Evolving Science' (Slonczewski J and Foster JW, Publisher: W. W. Norton).

Guest blog in Scientific American 2012 (<http://blogs.scientificamerican.com/guest-blog/2012/04/18/empirically-dancing-your-way-to-the-top-how-nicole-dubilier-does-it/>)

ARTE TV documentary film "Leben am Limit – Geheimnisse der Tiefsee" on deep-sea research and cruises, Premiere: Sept 2, 2011

TWIM (This Week in Microbiology) interview, May 2011 (<http://www.virology.ws/2011/06/03/twim-8-live-in-nola/>)

World Congress of Science and Factual Producers, Dec. 2010, Dresden. Featured scientist in Session 'The Pitch'

Text and video blog of research cruise with the RV Meteor in Hamburger Abendblatt (<http://wissenschafts-blog.abendblatt.de/>)

Max Planck Forum in Berlin, Expeditionen – das grosse Abenteuer: "Heisse Quellen in der Tiefsee: Oasen des Lebens", Dec. 2009

GLOBE (Global Learning and Observations to Benefit the Environment) featured scientist for the 2009 FLEXE (From Local to Extreme Environments) forum

Editorial Board

Applied and Environmental Microbiology (2010 – 2014)

npj Biofilms and Microbiomes (since 2016)

Environmental Microbiology (since 2011)

FEMS Microbial Ecology (since 2014)

Marine Genomics (2012 - 2017)

mBio (since 2013)

Molecular Ecology (Invited editor of special issue on symbiosis in 2014)

Scientific memberships

AcademiaNet (elected in 2010)

American Academy of Microbiology (elected Fellow in 2013)

American Society of Microbiology

European Academy of Microbiology (elected Fellow in 2015)

German Association for General and Applied Microbiology (VAAM)

Leopoldina, German National Academy of Sciences (elected in 2015)

Reviewer Activity (selected examples)

Institutes and funding agencies: European Research Council (ERC), German Research Foundation (DFG), National Science Foundation (USA), FWF Austrian Science Fund, CNRS (France), French National Research Agency (ANR), Smithsonian Institute (USA)

Journals: Nature, Nature Microbiology, Nature Reviews Microbiology, Proceedings of the National Academy of Science, PLoS Biology, Current Biology, Microbiology, ISME Journal,

Applied and Environmental Microbiology, Environmental Microbiology, Systematic and Applied Microbiology, FEMS Microbiology Reviews, FEMS Microbiology Ecology, Aquatic Microbial Ecology, Marine Ecology Progress Series, Marine Biology, Marine Ecology, Marine Environmental Research, Palaeogeography Paleoclimatology Palaeoecology, American Zoology, Invertebrate Zoology

International Collaborators (selected)

Monika Bright (University of Vienna, Austria): Symbiont transmission

Sebastien Duperron (CNRS, University of Pierre and Marie Curie, Paris): Wood fall symbioses (DiWood)

Christer Erséus (University of Göteborg, Schweden): Gutless oligochaetes

Charles Fisher (Penn State University, USA): Vent and seep ecosystems

Peter Girguis (Harvard University, USA): In situ analysis of dissolved gases

Steven Hallam (University of British Columbia, Canada): Comparative genomics

Julie Huber (MBL, USA): Microbial ecology of hydrothermal vents

Stephane Hourdez (Biological Station Roscoff, France): Ecology of vent symbioses

Margaret McFall-Ngai (University of Hawaii): Placazoan symbioses

Jörg A. Ott (University of Vienna, Austria): Nematode symbioses

Tanja Woyke (Joint Genome Institute): Metagenomics

Teaching Experience (brief version, selected examples)

International Max Planck Research School (IMPRS) of Marine Microbiology / University of Bremen

Speaker of the IMPRS since 2019

Lecture series at MSc level: "Symbioses", "Marine Viruses" yearly since 2003

Practical course at MSc level: "Marine Symbioses" yearly since 2003

Seminar at PhD level: "Scientific Writing and Speaking" every 2 years since 2003

Coordinator of the IMPRS from 2003 – 2007. Responsible for developing concept and curriculum for the school, writing proposals for funding, successful in receiving funding from the Max Planck Society (2.5 M€) and the EU (Marie Curie Research Training Network, 1.3 M€), recruitment of students and staff, establishment of the MSc and PhD programs.

University of Bremen, Department of Geosciences

Lecture series at BSc level: "Geobiology" (SS 2011)

Lecture series at MSc level: "Astrobiology" (SS 2011)

European Campus of Excellence Summer School Host-Microbe Symbioses, Gulbenkian Institute Portugal, August 2015 (1 week)

Woods Hole MBL Microbial Diversity Summer Course

Guest lecturer in 2009, 2011, 2016, 2019

EU Symbiomics Training Workshop "Ecology of Marine Symbioses", Elba, Italy (10 d, 2012 and 2014)

EU Marie Curie Research Training Network course "Hydrothermal environments at mid-ocean ridges: biodiversity and geological / geophysical context", Azores, Portugal (2 d, 2005)

University of Hamburg

Lecture (Hauptstudium): "Marine Benthic Habitats" (2000)

Seminar (Hauptstudium): "Molecular Biology of Symbioses" (1997)

Practical course (Grundstudium): "Basic Zoology" (1995, 1996)

MSc Students

- Patric Bourceau (2019) "Combining mass spectrometry, Chemoinformatics and bioinformatics to elucidate the metabolism of unusual phosphorous compounds in host symbiont systems". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Caroline Zeidler (2019) "Bioplastic-eating animals: Polyhydroxyalkanoate-degrading enzymes in a chemosymbiotic worm". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Alaina Weinheimer (2018) "Investigating the virome associated with the symbiosis between deep-sea *Bathymodiolus* mussels and their chemosynthetic microbial partners". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Tina Enders (2017) "Role of carbon monoxide in the biogeochemistry of *Posidonia oceanica* seagrass peat". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Maximilian Franke (2017) "Symbiont colonization in early developmental stages of the deep-sea mussel *Bathymodiolus puteoserpentis*". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Moritz Janda (2017) "Mass spectrometry imaging based metabolomics of host-microbe interactions in marine invertebrates". University of Bremen.
- Anna Mankowski (2017) "Comparative and functional genomics of deltaproteobacterial symbionts of gutless oligochaetes". University of Bremen.
- Pierre Methou (2016) "Expression of *Olavius algarvensis* respiratory pigments revealed through mRNA whole-mount in situ hybridization". Master Sciences de l'Univers, Environnement, Ecologie Spécialité : EcoPhysiologie et EcoToxicologie.
- Merle Ücker (2017) "Understanding microbial symbioses in bathymodiolin hybrid host species using metagenomics". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Dolma Michellod (2016) "Metabolic analyses of symbioses between chemoautotrophic bacteria and marine invertebrates". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Miriam Brandt (2015) "Characterization and comparative study of the chemosynthetic symbiosis in gutless marine oligochaetes from Belize and Bermuda". University of Bremen.
- Miguel Angel Gonzalez Porras (2015) "Probing the complexity of a deep-sea symbiosis: Establishing geneFISH as a technique to image symbiont strain-specific differences in metabolic potential". International MSc in Marine Biodiversity and Conservation. MSc program of consortium of 6 European universities.
- Benedikt Geier (2015) "A correlative approach for combining multimodal imaging techniques in a 3D scenario". External student from the LMU Munich.
- Anna Kemper (2015) "Symbiont metabolic potential and host symbiont interactions in the lucinid chemosynthetic symbiosis from Elba, Italy. International Max Planck Research School for Marine Microbiology, University of Bremen.
- Rahel Yemanaberhan (2015) "Carbon incorporation and transfer in marine symbiotic worms". International Max Planck Research School for Marine Microbiology, University of Bremen.

- Rebecca Ansorge (2014) "Strain diversity and genome evolution in chemoautotrophic symbionts of *Bathymodiolus* mussels". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Oliver Jäckle (2014) "Experimental molecular and biochemical characterization of the *Paracatenula* symbiosis". International Max Planck Research School for Marine Microbiology, University of Bremen
- Kwee Boon Brandon Seah (2013) "Bacterial ectosymbionts of the ciliate *Kentrophoros*". International Max Planck Research School for Marine Microbiology. University of Bremen
- Miriam Sadowski (2013) "Molecular characterization of ectosymbiotic bacteria from nematodes in a shallow water system". International Max Planck Research School for Marine Microbiology. University of Bremen
- Laura Gallego Valle (2012) "Microdiversity in host-associated and free-living symbionts of *Bathymodiolus* mussels from Mid-Atlantic Ridge". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Lizbeth Sayavedra Camacho (2012) "Comparative genomics of symbiotic and free-living chemoautotrophic bacteria". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Juliane Wippler (2011) "Analysis of mobile DNA in endosymbionts of the gutless marine oligochaete worm *Olavius algarvensis*". International Max Planck Research School for Marine Microbiology. University of Bremen.
- Judith Zimmermann (2010) "Molecular characterization of a vestimentiferan tubeworm and its endosymbiotic bacteria from a hydrothermal vent in the Mediterranean Sea". University of Bremen.
- Dennis Fink (2008) "Distribution, abundance and productivity of endosymbionts in the deep-sea mussel *Bathymodiolus*". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Karina Röse (2008) "Symbiosis between bacteria and bathymodioline mussels at hydrothermal vent and cold seep sites". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Luciana Raggi (2007) "Molecular studies of two different bacterial symbioses in invertebrates: diversity and biogeography". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Jillian Petersen-Struck (2006) "Molecular studies of deep-sea invertebrate symbioses: characterisation, geobiological coupling, and biogeography". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Nancy Brewig (2006) "Molecular biological characterization of the symbionts from the gutless marine oligochaete *Inanidrilus exumae*". University of Hamburg.
- Amelia Rotaru (2005) "Genomic analysis of the endosymbiotic communities of a gutless marine worm (*Olavius algarvensis*)". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Mirjam Perner (2003) "Biogeochemical and microbiological characterisation of marine sediments in Elba - a contribution to an ecosystematic analysis of oligochaetes with bacterial symbionts". University of Hamburg.
- Christina Zaluski (2003) "Molecular biological characterisation of bacterial symbionts in the marine gutless oligochaete *Inandrilus leukodermatus*". University of Hamburg.
- Claudia Bergin (2002) "Characterisation of stable carbon isotopes in tissues and RNA of mussels with endosymbiotic bacteria". University of Bremen.

- Anna Blazejak (2001) "Molecular characterisation of bacteria associated with marine oligochaetes (Annelida)". Technical University Berlin.
- Steffen Kolb (1999) "Abundances and vertical distribution of sulfate-reducing and chemolithotrophic sulfur-oxidizing bacteria in sandy Wadden Sea sediments". University of Bremen.
- Caroline Rühland (1999) "Molecular characterization of bacteria associated with marine oligochaetes (Annelida)". University of Hamburg.
- Arnd Prilip (1999) "Characterisation of ectosymbionts of marine nematodes from the genus *Leptonemella* and free-living sulfur-oxidizing bacteria with microbiological and molecular methods". University of Bremen.

PhD Students

- Rebecca Ansoerge (2019) "Strain diversity and evolution in endosymbionts of *Bathymodiolus* mussels". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Kwee Boon Brandon Seah (2017) "The bacterial ectosymbionts of the ciliate *Kentrophoros*". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Adrien Assié (2016) "Deep Se(a)quencing: A study of deep-sea ectosymbioses using next-generation sequencing. International Max Planck Research School for Marine Microbiology, University of Bremen.
- Lizbeth Sayavedra (2016) "Host-symbiont interactions and metabolism of chemosynthetic symbiosis in deep-sea *Bathymodiolus* mussels". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Mario Schimak (2016) "Transmission of bacterial symbionts in the gutless oligochaete *Olavius algarvensis*." International Max Planck Research School for Marine Microbiology, University of Bremen.
- Judith Zimmermann (2015) "Diversity, specificity and evolutionary history of marine invertebrate symbioses and functions of the sulfur-oxidizing symbionts". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Manuel Kleiner (2012) "Metabolism and evolutionary ecology of chemosynthetic symbionts from marine invertebrates". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Cecilia Wentrup (2012) "Acquisition and Activity of Bacterial Symbionts in Marine Invertebrates". Fachbereich Biologie/Chemie, University of Bremen
- Dennis Fink (2011) "Dynamics of Symbiont Abundance in Bathymodiolin Deep-Sea Symbioses". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Caroline Verna (2010) "Phylogeny and Diversity of Symbionts from Whale Fall Invertebrates". International Max Planck Research School for Marine Microbiology, University of Bremen and University of Pierre and Marie Curie, Paris
- Caroline Rühland (2010) "Characterization of Bacterial Ecto- and Endosymbionts of Oligochaete Worms from Marine Sediments: Phylogeny and Metabolic Potential". Fachbereich Biologie/Chemie, University of Bremen
- Luciana Raggi (2010) "Bacterial – Invertebrate Symbioses: From an Asphalt Cold Seep to Shallow Waters". International Max Planck Research School for Marine Microbiology, University of Bremen.

- Jillian Petersen-Struck (2009) "Biogeography of bacterial symbionts from hydrothermal vent shrimp and mussels". International Max Planck Research School for Marine Microbiology, University of Bremen.
- Claudia Bergin (2009) "Molecular physiology of bacterial symbionts in gutless marine oligochaetes". Fachbereich Biologie/Chemie, University of Bremen.
- Frank Zielinski (2008) "Geobiological coupling of hydrothermal vent fluids with endosymbiotic primary producers of *Bathymodiolus* mussels from hydrothermal vents on the Mid-Atlantic Ridge". Fachbereich Biologie/Chemie, University of Bremen.
- Niculina Musat (2006) "Molecular characterization of symbiotic associations between chemoautotrophic sulfur-oxidizing microorganisms and nematodes in shallow marine sediments". Fachbereich Biologie/Chemie, University of Bremen.
- Sébastien Duperron (2005) "Bacterial symbioses in mytilid bivalves associated with cold seeps and hydrothermal vents: diversity, nutritional role, and influence of the environment". University of Paris 6, France. Joint PhD with Myriam Sibuet (IFREMER, France)
- Anna Blazejak (2005) "Phylogenetic and functional characterization of symbiotic bacteria in gutless marine worms (Annelida, Oligochaeta)". Fachbereich Biologie/Chemie, University of Bremen.

Postdoctoral Fellows

- Yui Sato (since 2017) Speciation in gutless marine oligochaetes and their symbiotic bacteria
- Emilia Sogin (since 2016) Metabolomic analyses of the gutless oligochaete symbiosis
- Alexander Gruhl (since 2015) Ultrastructural analyses of symbiont transmission in gutless oligochaetes
- Nikolaus Leisch (since 2015) Ultrastructural imaging of *Bathymodiolus* symbioses
- Manuel Liebeke (postdoc 2013 - 2018, since 2018 Research Group Leader) Metabolomics and mass spectrometry imaging of bacterial symbionts
- Harald Gruber-Vodicka (since 2012) Evolution and ecophysiology of symbioses in marine flatworms, EU Marie Curie Intra-European Fellowship from 2012-2014
- Maxim Rubin Blum (2014-2017) Ecology and physiology of *Bathymodiolus* symbioses
- Anne-Christine Kreutzmann (2014-2017) Physiology of chemosynthetic symbionts
- Chakkiath Paul Antony (2013-2016) Comparative genomics and physiology of symbiotic methane oxidizers, Humboldt Postdoctoral Fellowship
- Manuel Kleiner (2013-2014) Proteogenomics of gutless oligochaete symbionts
- Jillian Petersen (2009-2015) Metagenomic analyses of marine symbionts
- Florence Pradillon (2004-2006) Larvae in situ tracking: detection and identification of early-life-stages of marine organisms using in situ hybridisation with oligonucleotide probes, EU Marie Curie Intra-European Fellowship
- Annelie Pernthaler (2004-2005) In situ identification of functional genes in symbiotic bacteria

Student Defense Committees (international only, selected)

- Aarhus University, Denmark: Marie B. Lund (PhD 2009)
- University of Pierre and Marie Curie, Paris, France: Anne-Laure Sauvadet (PhD 2010),
Caroline Schmidt (PhD 2008), Sébastien Halary (PhD 2009), Mathieu Pernice (PhD 2006)
- University of Vienna, Austria: Harald Gruber (PhD 2012), Bettina Pflugfelder (PhD 2007)

List of publications (**key papers in bold**)

<https://scholar.google.com/citations?user=vAXs9hwAAAAJ&hl=en&oi=ao>

Students and postdocs that contributed to papers while in my lab are highlighted with an asterisk (*)

To support the careers of young researchers that have trained in my lab, I give them senior authorship where warranted (shown below with two asterisks (**)) after their name). I also promote the careers of postdocs in my lab by allowing them, where warranted, to publish papers without me, despite having provided the funding for the research and contributed intellectually with ideas and suggestions, e.g. Harald Gruber-Vodicka and Manuel Liebeke (see publication list of my department here: <https://www.mpi-bremen.de/en/Publications-16.html>).

Ansorge R*, Romano S, Sayavedra L*, Gonzalez-Porras MA*, Kupczok A, Tegetmeyer HE, Dubilier N, Petersen JM 2019. Functional diversity enables multiple symbiont strains to coexist in deep-sea mussels. Nature Microbiology, Oct. 14th, 2019. doi: 10.1038/s41564-019-0572-9.**

Assié A*, Leisch N*, Meier DV, Gruber-Vodicka H*, Tegetmeyer HE, Meyerdierks A, Kleiner M, Hinzke T, Joye S, Saxton M, **Dubilier N**, Petersen JM**. 2019. Horizontal acquisition of a patchwork Calvin cycle by symbiotic and free-living Campylobacterota (formerly Epsilonproteobacteria). ISME Journal. Online Early: September 27, 2019. doi: 10.1038/s41396-019-0508-7

Gruber-Vodicka H*, Leisch N*, Kleiner M, Hinzke T, Liebeke M*, McFall-Ngai M, Hadfield M, Dubilier N. 2019. Two intracellular and cell-type specific bacterial symbionts in the placozoan *Trichoplax* H2. Nature Microbiology. June 10th, 2019. doi: 10.1038/s41564-019-0475-9

Romero Picazo D, Dagan T, Ansorge R*, Petersen JM, **Dubilier N.** & Kupczok, A. 2019. Horizontally transmitted symbiont populations in deep-sea mussels are genetically isolated. The ISME Journal. Online Early: August 8, 2019. doi: 10.1038/s41396-019-0475-z

Rubin-Blum M*, Antony CP*, Sayavedra L*, Martinez-Perez C, Birgel D, Peckmann J, Wu YC, Cardenas P, MacDonald I, Marcon Y, Sahling H, Hentschel U, **Dubilier N.** 2019. Fueled by methane: deep-sea sponges from asphalt seeps gain their nutrition from methane-oxidizing symbionts. ISME Journal **13**: 1209-1225. doi:10.1038/s41396-019-0346-7

Rubin-Blum M*, **Dubilier N**, Kleiner M. 2019. Genetic evidence for two carbon fixation pathways (the Calvin-Benson-Bassham cycle and the reverse tricarboxylic acid cycle) in symbiotic and free-living bacteria. mSphere 4: e00394-18. doi: 10.1128/mSphere.00394-18

Seah BKB*, Antony CP*, Huettel B, Zarzycki J, von Borzyskowski LS, Erb TJ, Kouris A, Kleiner M, Liebeke M*, **Dubilier N**, Gruber-Vodicka H**. 2019. Sulfur-oxidizing symbionts without canonical genes for autotrophic CO₂ fixation. mBio 10: e01112-19. doi: 10.1128/mBio.01112-19

Bang C, Dagan T, Deines P, **Dubilier N**, Duschl WJ, Fraune S, Hentschel U, Hirt H, Hülter N, Lachnit T, Picazo D, Pita L, Pogoreutz C, Rädicker N, Saad MM, Schmitz RA, Schulenburg H, Voolstra CR, Weiland-Bräuer N, Ziegler M, Bosch TCG. 2018. Metaorganisms in extreme environments: do microbes play a role in organismal adaptation? Zoology 127: 1-19. doi: <https://doi.org/10.1016/j.zool.2018.02.004>

Bergin C*, Wentrup C*, Brewig N*, Blazejak A*, Erséus C, Giere O, Schmid M, de Wit P, **Dubilier N.** 2018. Acquisition of a novel sulfur-oxidizing symbiont in the gutless

- marine worm *Inanidrilus exumae*. Applied and Environmental Microbiology 84: e02267-17. doi:10.1128/AEM.02267-17
- Dubilier N.** 2017. High tide for marine microbes. Cell 169: 771. <https://doi.org/10.1016/j.cell.2017.05.009> (Invited 'Voices' article)
- Kreutzmann AC* & **Dubilier N.** 2017. Dunkle Energie: Symbiosen zwischen Tieren und chemosynthetischen Bakterien. In: Faszination Meeresforschung. Eds. G. Hempel, K. Bischof, W. Hagen. Springer Berlin Heidelberg: 231-244.
- Ponnudurai R, Kleiner M, Sayavedra L*, Petersen JM*, Moche M, Otto A, Becher D, Takeuchi T, Satoh N, **Dubilier N**, Schweder T, Markert S. 2017. Metabolic and physiological interdependencies in the *Bathymodiolus azoricus* symbiosis. ISME J. 11: 463-477. doi: 10.1038/ismej.2016.124.
- Rubin-Blum M*, Antony CP*, Borowski C*, Sayavedra L*, Pape T, Sahling H, Bohrmann G, Kleiner M, Redmond MC, Valentine DL, Dubilier N.** 2017. Short-chain alkanes fuel mussel and sponge *Cycloclasticus* symbionts from deep-sea gas and oil seeps. *Nature Microbiology* 2: 17093. doi: 10.1038/nmicrobiol.2017.93
- Seah BKB*, Schwaha T, Volland J-M, Huettel B, **Dubilier N**, Gruber-Vodicka HR**. 2017. Specificity in diversity: Single origin of a wide-spread ciliate-bacteria symbiosis. Proc. R. Soc. B. 284: 20170764. <http://dx.doi.org/10.1098/rspb.2017.0764>
- Tavormina PL, Kellermann MY, Antony CP*, Tocheva E, Dalleska N, Jensen AJ, Valentine DL, Hinrichs K-U, Jensen G, **Dubilier N**, Orphan VJ. 2017. Starvation and recovery in the deep-sea methanotroph *Methyloprofundus sedimenti*. *Molecular Microbiology* 103: 242-252. doi: 10.1111/mmi.13553
- Assie A*, Borowski C*, van der Heijden K*, Raggi L*, Geier B*, Leisch N*, Schimak MP*, **Dubilier N**, Petersen JP**. 2016. A specific and widespread association between deep-sea *Bathymodiolus* mussels and a novel family of Epsilonproteobacteria. *Environ. Microbiol. Reports*. doi:10.1111/1758-2229.12442.
- Breusing B, Biastoch A, Drews A, Metaxas A, Jollivet D, Vrijenhoek RC, Bayer T, Melzner F, Sayavedra L*, Petersen JL*, **Dubilier N**, Schilhabel MB, Rosenstiel P, Reusch TBH. 2016. Biophysical and population genetic models predict the presence of “phantom” stepping stones connecting Mid-Atlantic Ridge vent ecosystems. *Current Biology* 26: 2257-2267. <http://dx.doi.org/10.1016/j.cub.2016.06.062>.
- Schimak MP*, Kleiner M*, Wetzel S*, Liebeke M*, **Dubilier N**, Fuchs BM. 2016. Multilabeled fluorescence in situ hybridization (MiL-FISH) oligonucleotides improve visualization of bacterial cells. *Appl. Environ. Microbiol.* 82: 62-70. doi:10.1128/AEM.02776-15.
- Wippler J*, Kleiner M*, Lott C*, Gruhl A*, Abraham PE, Giannone RJ, Young JC, Hettich RL, **Dubilier N.** 2016. Transcriptomic and proteomic insights into innate immunity and adaptations to a symbiotic lifestyle in the gutless marine worm *Olavius algarvensis*. *BMC Genomics* 17:942. doi: 10.1186/s12864-016-3293-y
- Zimmermann J*, Wentrup C*, Sadowski M*, Blazejak A*, Gruber-Vodicka H*, Kleiner M*, Ott J, Cronholm B, De Wit P, Erséus C, **Dubilier N.** 2016. Closely coupled evolutionary history of ecto-and endosymbionts from two distantly-related animal phyla. *Molecular Ecology* 25: 3203-3223. doi: 10.1111/mec.13554
- Dubilier N**, McFall-Ngai M, Zhao L. 2015. Create a global microbiome effort. *Nature* 526: 631-634 (Invited Comment article)
- Kleiner M*, Wentrup C*, Holler T, Lavik G, Harder J, Lott C*, Littmann S, Kuypers MMM, **Dubilier N.** 2015. Use of carbon monoxide and hydrogen by a bacteria – animal symbiosis from seagrass sediments. *Environ. Microbiol.* 17: 5023- 5035. doi:10.1111/1462-2920.12912
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- Petersen JM*, **Dubilier N**. 2014. Gene swapping in the dead zone: Viruses can swap DNA between bacteria that live in regions of the oceans with little or no oxygen. *eLife* 3: e04600. DOI: <http://dx.doi.org/10.7554/eLife.04600> (Non peer-reviewed)
- Russell JA, **Dubilier N**, Rudgers JA. 2014. Nature's microbiome. *Mol. Ecol.* 23: 1225-1237. (Non peer-reviewed)
- Wentrup C*, Wendeberg A*, Schimak M*, Borowski C*, **Dubilier N**. 2014. Forever competent: Deep-sea bivalves are colonized by their chemosynthetic symbionts throughout their lifetime. *Environ. Microbiol.* 16: 3699–3713. doi:10.1111/1462-2920.12597
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- McFall-Ngai M, Hadfield MG, Bosch T, Carey H, Domazet-Lozo T, Douglas A, **Dubilier N**, Eberl G, Fukami T, Gilbert SF, Hentschel U, King N, Kjelleberg S, Knoll AH, Kremer N, Mazmanian SK, Metcalf JL, Neelson K, Pierce NE, Rawls J, Reid A, Ruby EG, Rumpho M, Sanders J, Tautz D, Wernegreen J. 2013. Animals in a bacterial world: a new imperative for the life sciences. *Proc. Natl. Acad. Sci. USA* 110: 3229-3236. doi:10.1073/pnas.1218525110
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- Gros O, Elisabeth N H, Gustave SDD, Caro A, **Dubilier N**. 2012. Plasticity of symbiont acquisition throughout the life cycle of the shallow-water tropical lucinid *Codakia*

- orbiculata* (Mollusca: Bivalvia). Environ. Microbiol. 14, 1584-1595, doi:10.1111/j.1462-2920.2012.02748.x
- Kellermann MY, Schubotz F, Elvert M, Lipp JS, Birgel D, Prieto-Mollar X, **Dubilier N**, Hinrichs K-U. 2012. Symbiont-host relationships in chemosynthetic mussels: A comprehensive lipid biomarker study. Organic Geochemistry 43, 112-124. doi:10.1016/j.orggeochem.2011.10.005
- Kleiner M*, Petersen JM*, Dubilier N. 2012. Convergent and divergent evolution of metabolism in sulfur-oxidizing symbionts and the role of horizontal gene transfer. Curr. Opin. Microbiol. 15, 621-631
- Petersen JM*, Wentrup C*, Verna C*, Knittel K, **Dubilier N**. 2012. Origins and evolutionary flexibility of chemosynthetic symbionts from deep-sea animals. Biol. Bull. 223: 123-137
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- Wendeberg A*, Zielinski FU*, Borowski C*, **Dubilier N**. 2012. Expression patterns of mRNAs for methanotrophy and thiotrophy in symbionts of the hydrothermal vent mussel *Bathymodiolus puteoserpentis*. ISME Journal 6: 104-112. doi:10.1038/ismej.2011.81
- Hugler M, Petersen JM*, **Dubilier N**, Imhoff JF, Sievert SM. 2011. Pathways of carbon and energy metabolism of the epibiotic community associated with the deep-sea hydrothermal vent shrimp *Rimicaris exoculata*. PLoS One 6, doi:e1601810.1371/journal.pone.0016018
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- Petersen JM***, Zielinski FU*, Pape T, Seifert R, Moraru C, Amann R, Hourdez S, Girguis PR, Wankel SD, Barbe V, Pelletier E, Fink D*, Borowski C*, Bach W, **Dubilier N**. 2011. Hydrogen is an energy source for hydrothermal vent symbioses. Nature 476: 176-180. doi:10.1038/nature10325
- Zielinski FU*, Gennerich H, Borowski C*, Wenzhöfer F, **Dubilier N**. 2011. In situ measurements of hydrogen sulfide, oxygen, and temperature in diffuse fluids of an ultramafic-hosted hydrothermal vent field (Logatchev, 14°45'N, Mid-Atlantic Ridge): Implications for chemosymbiotic bathymodiolin mussels. Geochem. Geophys. Geosyst. 12, Q0AE04, doi:10.1029/2011GC003632.
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- Dubilier N, Bergin C*, Lott C*. 2008. Symbiotic diversity in marine animals: the art of harnessing chemosynthesis. Nature Reviews Microbiology 6: 725-740**
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