Curriculum Vitae:

Prof. Dr. Hans-Peter Grossart

born May 11, 1965

in Bad Sobernheim (Germany)

2 childs

(Paula Johanna, born 21 September 2002 and

Jan Pascal, born 4 June 2007)

Present address:

Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB)
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http://www.igb-berlin.de/zusaetzliche-informationen_experimentelle-limnologie.html

Education / Employments:

1984: school leaving examination (Naturwissenschaftliches Gymnasium Sobernheim)

1991: Diploma thesis (University of Constance, Limnology)

1995: Dissertation (University of Constance, Limnology, *summa cum laude*)
"Occurrence, formation, and microbial processes on macroscopic organic aggregates (lake snow) in Lake Constance" (the thesis was part of the **SFB 248**: "Stoffhaushalt des Bodensees", funded by the German Science (DFG) foundation.

1992-95: Interdisciplinary collaboration in the **SFB 248**: "Stoffhaushalt des Bodensees", funded by the German Science foundation (DFG).

1995: Postdoctoral student of Prof. Dr. T. Berman at the Yigal Allon **Kinneret Limnological Laboratory**, Tiberias, Israel. Scholarship of the „Förderkreises der deutsch-israelischen Zusammenarbeit, Konstanz".

1996-98: Postdoctoral student of Prof. F. Azam at the **Scripps Institution of Oceanography** in La Jolla, USA. Research scholarship of the German Science Foundation (DFG, Gr 1540/1-1):"Formation of marine snow and the role of populations of attached heterotrophic bacteria".

1998-2002: Assistent professor at the **University of Oldenburg** (Institute for Chemistry and Biology of the Sea, ICBM) in the lab of Prof. Dr. Meinhard Simon: "Biology of biogeological processes". My main task was the quantification and characterisation of biogeological processes and their ecological role in aquatic systems, e.g.. German Wadden Sea, Red Sea, Lakes Kinneret and Constance.

2002-present: Head of the "Aquatic microbial ecology group" at the **Institute of Freshwater Ecology and Inland Fisheries (IGB)**. My main interest is to characterizing community structures of aquatic organisms in various aquatic ecosystems, e.g. lakes of the Mecklenburg Lake District, the Baltic Sea, the North Sea as well as other marine systems, and to elucidating their role in energy and nutrient cycles. The primary goal of my research is to combine fundamental and applied research to better exploit the present knowledge in aquatic ecology for specific applications in industry, e.g. secondary metabolites including antibiotics, Poly-P storage and release, enzymes for degrading polymeric substances, aggregation processes and sedimentation etc. My lab is well equipped to perform the most recent molecular techniques (Real time PCR, PCR, DGGE, Sequencing, Transcriptomic), primary and secondary production measurements, as well as analytical methods (HPLC, TOC analyser etc.).

2004: **Habilitation** at the University of Oldenburg. "Role of heterotrophic bacteria in aquatic nutrient and energy cycles".

2008: Head of the **"Programmbereich: Aquatic Biodiversity"** at IGB.

2009: Call for W2-professorship, Microbiology (University of Dresden)

2010-currently: W2-professorship for Biodiversity and Microbial Ecology at University of Potsdam

2016-currently: Member-at-large of ASLO (https://aslo.org/page/past-officers-and-board)

Co-Organisation of Workshops:

2013: ASLO 2013 Aquatic Sciences Meeting: Learning for the Future, 17-22 February 2013, Ernest N. Morial Convention Center, New Orleans,· Louisiana, USA (ca. 2500 participants)

2013: Annual Meeting 2013 German Limnological Society and German Society for Ecology on the Campus Griebnitzsee Potsdam 9.-13. September 2013 (ca. 1000 participants).

2015: Biodiversity Workshop Programmbereich I: The next generation of biodiversity research: theory, traits and methods. Biodiversity workshop at the Leibniz-Institute of Freshwater Ecology and Inland Fisheries (IGB) Berlin, 7-9 October 2015 (ca. 50 participants).

Editorial Board:

Fundamental and Applied Limnology (Editorial Board),
The Scientific World (Editorial Board),
Aquatic Microbial Ecology (Reviewing Editor),
Frontiers in Aquatic Microbiology

Reviewer of:

Journals:

Nature, Nature-Geosciences, Proc. Nat. Amer. Soc. (PNAS), Limnology and Oceanography, Marine Ecology Progress Series, Journal of Plankton Research, Journal of Phycology, Archiv für Hydrobiologie, Limnologica,

International Review of Hydrology, Estuaries, Estuarine Coastal and Shelf Science, Helgoland Marine Res., FEMS Microbiology Ecology, Polar Scientific Publications, Microbial Ecology, BMC Ecology, International Microbiology, FEMS Microbiology Letters, Freshwater Biology, CSIRO Publishing, ISME Journal, Biogesciences, Organic Geochemisty, Marine Chemistry, Journal of Marine Systems, Journal of Applied Phycology, Phycology, Marine Environmental Research etc.

Funding Agencies:

National Science Foundation (NSF, USA), Deutsche Forschungsgemeinschaft (DFG), Israelian Society of Science, Natural Environment Research Council (NERC, England), French National Science Foundation, Czech National Science Foundation, Finnish Academy of Science, Humboldt, BMBF, DBU, DAAD…

Member of the following organisations:

International Society for Microbial Ecology (ISME), Vereinigung für Allgemeine und Angewandte Mikrobiologie (VAAM), American Society of Limnology and Oceanography (ASLO), Deutsche Gesellschaft für Limnologie (DGL), Institute of Coral Reef Studies (ICRS), Polichia (Pfälzer Naturkundeverein)

Six key publications:

1. Simon, M., **Grossart, H.P.,** Schweitzer, B., Ploug, H. 2002. Microbial Ecology of Organic Aggregates in Aquatic Ecosystems. Aquat. Microb. Ecol. 28:175-211.
This manuscript points to the important role of particle-associated bacteria for aquatic carbon and nutrient cycles. It provides a comprehensive overview on this important research field and has been cited multiple times. The manuscript has stimulated a great number of studies and and interdisciplinary research projects in the field.

2. Grossart, H.-P., F. Levold, M. Allgaier, M. Simon, and T. Brinkhoff. 2005. Marine diatom species harbour distinct bacterial communities. Environ. Microbiol. 7: 860-873.
This manuscript has evaluated the phylogenetic composition of heterotrophic bacteria related to phytoplankton community and growth stage. It has gained great attention in the scientific community and has stimulated a number of follow up research in the field.The manuscript presents a good example on how previously separated fields (microbiology and phytoplanktology) can be linked with each other.

3. Grossart, H.-P. (2010) Ecological consequences of bacterioplankton lifestyles: Changes in concepts are needed. (invited minireview for Environ. Microbiol.), Environ. Microbiol. R. 2:706-714.
This invited review presents a conceptional outline of my own research. It clearly indicates the differences in microbial lifesytles and points to the profound ecological consequences. This manuscript is the basis of many follow up studies and nicely demonstrates that aquatic microbial ecology needs to collaborate with other scientific disciplines to be successful.

4. Grossart, H.-P., Dziallas, C., Leunert, F., Tang, K. (2010) Bacteria disperse hitch hiking on zooplankton. PNAS 107 (26):11959–11964.

This manuscript demonstrates how behaviour of both mmicroorganisms and zooplankton are interlinked with each other and can thus effect overall biodiversity and ecosystem functioning. The manuscript has initiated a number of follow up studies addressing the role of dead and live zooplankton as a habitat and locus for heterotrophic activity and processes affecting aquatic geochemical cyles.

5. Grossart, H.P., Frindte, K., Dziallas, C., Eckert, W., Tang, K. (2011) Microbial Methane Production in Oxygenated Water Column of an Oligotrophic Lake. PNAS 108 (49): 19657-19661.
This study for the first time evaluates the presence of methane in oxic water layers of lakes. There is still a great depate on how methane can accumulate in the presence of oxygen and which organisms and processes are responsible for methane production in the upper, oxic water layers of lakes. Follow up studies show that methane accumulation in oxic surface water can substantially contribute to overall outgassing of methane, a highly potential greenhouse gas.

6. Ionescu, D., Bizic-Ionescu, M., Maio, N., Cypionka, H., **Grossart, H.-P.** (2017) Community-like genome in single cells of the sulfur bacterium *Achromatium oxaliferum*. Nature communications 8 (1): 455.
This manuscript points to the specific genetic structure of the so far biggest freshwater bacterium. The bacterium is not just polyploidic, but contains multiple genomes which are different from each other. This fact has great implications for evolutionand biodiversity research.