

# Jan-Hendrik Hehemann

## List of Publications by Year in descending order

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56  
papers

5,045  
citations

126907

33  
h-index

144013

57  
g-index

61  
all docs

61  
docs citations

61  
times ranked

5685  
citing authors

#	ARTICLE	IF	CITATIONS
1	<i>Verrucomicrobiota</i> are specialist consumers of sulfated methyl pentoses during diatom blooms. ISME Journal, 2022, 16, 630-641.	9.8	62
2	Glycoside hydrolase from the GH76 family indicates that marine <i>Salegendibacter</i> sp. Hel_I_6 consumes alpha-mannan from fungi. ISME Journal, 2022, 16, 1818-1830.	9.8	8
3	Ion-exchange purification and structural characterization of five sulfated fucoidans from brown algae. Glycobiology, 2021, 31, 352-357.	2.5	18
4	Quantifying fluorescent glycan uptake to elucidate strain-level variability in foraging behaviors of rumen bacteria. Microbiome, 2021, 9, 23.	11.1	16
5	Diatom fucan polysaccharide precipitates carbon during algal blooms. Nature Communications, 2021, 12, 1150.	12.8	58
6	Changing expression patterns of TonB-dependent transporters suggest shifts in polysaccharide consumption over the course of a spring phytoplankton bloom. ISME Journal, 2021, 15, 2336-2350.	9.8	42
7	Structural Basis of Ligand Selectivity by a Bacterial Adhesin Lectin Involved in Multispecies Biofilm Formation. MBio, 2021, 12, .	4.1	7
8	Enigmatic persistence of dissolved organic matter in the ocean. Nature Reviews Earth & Environment, 2021, 2, 570-583.	29.7	84
9	A new carbohydrate-active oligosaccharide dehydratase is involved in the degradation of ulvan. Journal of Biological Chemistry, 2021, 297, 101210.	3.4	8
10	Secretion of sulfated fucans by diatoms may contribute to marine aggregate formation. Limnology and Oceanography, 2021, 66, 3768-3782.	3.1	16
11	Characterization of the GH16 and GH17 laminarinases from <i>Vibrio breoganii</i> 1C10. Applied Microbiology and Biotechnology, 2020, 104, 161-171.	3.6	15
12	Laminarin is a major molecule in the marine carbon cycle. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6599-6607.	7.1	123
13	Plant species-specific recognition of long and short Î²-1,3-linked glucans is mediated by different receptor systems. Plant Journal, 2020, 102, 1142-1156.	5.7	50
14	Discrimination of Î²-1,4- and Î²-1,3-Linkages in Native Oligosaccharides via Charge Transfer Dissociation Mass Spectrometry. Journal of the American Society for Mass Spectrometry, 2020, 31, 1249-1259.	2.8	19
15	<i>Verrucomicrobia</i> use hundreds of enzymes to digest the algal polysaccharide fucoidan. Nature Microbiology, 2020, 5, 1026-1039.	13.3	182
16	Polysaccharide utilization loci of North Sea <i>Flavobacteriia</i> as basis for using SusC/D-protein expression for predicting major phytoplankton glycans. ISME Journal, 2019, 13, 76-91.	9.8	139
17	Biphasic cellular adaptations and ecological implications of <i>Alteromonas macleodii</i> degrading a mixture of algal polysaccharides. ISME Journal, 2019, 13, 92-103.	9.8	74
18	A marine bacterial enzymatic cascade degrades the algal polysaccharide ulvan. Nature Chemical Biology, 2019, 15, 803-812.	8.0	97

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19	FGB1 and WSC3 are <i>in planta</i> -induced $\beta$ -glucan-binding fungal lectins with different functions. <i>New Phytologist</i> , 2019, 222, 1493-1506.	7.3	43
20	Single cell fluorescence imaging of glycan uptake by intestinal bacteria. <i>ISME Journal</i> , 2019, 13, 1883-1889.	9.8	28
21	Insights into the $\beta$ -carrageenan metabolism pathway of some marine <i>Pseudoalteromonas</i> species. <i>Communications Biology</i> , 2019, 2, 474.	4.4	54
22	Evolution of a Vegetarian <i>Vibrio</i> : Metabolic Specialization of <i>Vibrio breoganii</i> to Macroalgal Substrates. <i>Journal of Bacteriology</i> , 2018, 200, .	2.2	24
23	Oxidative demethylation of algal carbohydrates by cytochrome P450 monooxygenases. <i>Nature Chemical Biology</i> , 2018, 14, 342-344.	8.0	47
24	The Molecular Basis of Polysaccharide Sulfatase Activity and a Nomenclature for Catalytic Subsites in this Class of Enzyme. <i>Structure</i> , 2018, 26, 747-758.e4.	3.3	30
25	Specificity and mechanism of carbohydrate demethylation by cytochrome P450 monooxygenases. <i>Biochemical Journal</i> , 2018, 475, 3875-3886.	3.7	11
26	Alpha- and beta-mannan utilization by marine <i>Bacteroidetes</i> . <i>Environmental Microbiology</i> , 2018, 20, 4127-4140.	3.8	31
27	Molecular recognition of the beta-glucans laminarin and pustulan by a <i>Sus</i> -like glycan-binding protein of a marine <i>Bacteroidetes</i> . <i>FEBS Journal</i> , 2018, 285, 4465-4481.	4.7	13
28	Adaptive mechanisms that provide competitive advantages to marine bacteroidetes during microalgal blooms. <i>ISME Journal</i> , 2018, 12, 2894-2906.	9.8	84
29	Biochemical characterization of an ulvan lyase from the marine flavobacterium <i>Formosa agariphila</i> KMM 3901T. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 6987-6996.	3.6	41
30	Laminarin Quantification in Microalgae with Enzymes from Marine Microbes. <i>Bio-protocol</i> , 2018, 8, e2666.	0.4	6
31	Aquatic adaptation of a laterally acquired pectin degradation pathway in marine gammaproteobacteria. <i>Environmental Microbiology</i> , 2017, 19, 2320-2333.	3.8	57
32	Accurate Quantification of Laminarin in Marine Organic Matter with Enzymes from Marine Microbes. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	75
33	Exploiting fine-scale genetic and physiological variation of closely related microbes to reveal unknown enzyme functions. <i>Journal of Biological Chemistry</i> , 2017, 292, 13056-13067.	3.4	18
34	Heterologous expression of LamA gene encoded endo- $\beta$ -1,3-glucanase and CO <sub>2</sub> fixation by bioengineered <i>Synechococcus</i> sp. PCC 7002. <i>Frontiers of Environmental Science and Engineering</i> , 2017, 11, 1.	6.0	2
35	Crystal structure of a marine glycoside hydrolase family 99-related protein lacking catalytic machinery. <i>Protein Science</i> , 2017, 26, 2445-2450.	7.6	1
36	KdgF, the missing link in the microbial metabolism of uronate sugars from pectin and alginate. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 6188-6193.	7.1	80

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37	Adaptive radiation by waves of gene transfer leads to fine-scale resource partitioning in marine microbes. <i>Nature Communications</i> , 2016, 7, 12860.	12.8	140
38	Structural and biochemical characterization of the laminarinase Zg <i>LamC</i> <sub>GH16</sub> from <i>Zobellia galactanivorans</i> suggests preferred recognition of branched laminarin. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 173-184.	2.5	34
39	The Structure of RdDddP from <i>Roseobacter denitrificans</i> Reveals That DMSP Lyases in the DddP-Family Are Metalloenzymes. <i>PLoS ONE</i> , 2014, 9, e103128.	2.5	22
40	The Î <sup>2</sup> -Glucanase Zg <i>LamA</i> from <i>Zobellia galactanivorans</i> Evolved a Bent Active Site Adapted for Efficient Degradation of Algal Laminarin. <i>Journal of Biological Chemistry</i> , 2014, 289, 2027-2042.	3.4	75
41	Competitionâ€dispersal tradeoff ecologically differentiates recently speciated marine bacterioplankton populations. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 5622-5627.	7.1	187
42	A sweet new wave: structures and mechanisms of enzymes that digest polysaccharides from marine algae. <i>Current Opinion in Structural Biology</i> , 2014, 28, 77-86.	5.7	112
43	Dip in the gene pool: Metagenomic survey of natural coccolithovirus communities. <i>Virology</i> , 2014, 466-467, 129-137.	2.4	10
44	Comparative Biochemical Characterization of Three Exolytic Oligoalginate Lyases from <i>Vibrio splendidus</i> Reveals Complementary Substrate Scope, Temperature, and pH Adaptations. <i>Applied and Environmental Microbiology</i> , 2014, 80, 4207-4214.	3.1	103
45	Substrate Recognition and Hydrolysis by a Family 50 exo-Î <sup>2</sup> -Agarase, Aga50D, from the Marine Bacterium <i>Saccharophagus degradans</i> . <i>Journal of Biological Chemistry</i> , 2013, 288, 28078-28088.	3.4	70
46	Analysis of Keystone Enzyme in Agar Hydrolysis Provides Insight into the Degradation (of a) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 382 T	3.4	89
47	Biochemical and Structural Characterization of the Complex Agarolytic Enzyme System from the Marine Bacterium <i>Zobellia galactanivorans</i> . <i>Journal of Biological Chemistry</i> , 2012, 287, 30571-30584.	3.4	139
48	Bacteria of the human gut microbiome catabolize red seaweed glycans with carbohydrate-active enzyme updates from extrinsic microbes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 19786-19791.	7.1	260
49	Environmental and Gut Bacteroidetes: The Food Connection. <i>Frontiers in Microbiology</i> , 2011, 2, 93.	3.5	989
50	The Conformation and Function of a Multimodular Glycogen-Degrading Pneumococcal Virulence Factor. <i>Structure</i> , 2011, 19, 640-651.	3.3	42
51	Ab initio phasing of a nucleoside hydrolase-related hypothetical protein from <i>Saccharophagus degradans</i> that is associated with carbohydrate metabolism. <i>Proteins: Structure, Function and Bioinformatics</i> , 2011, 79, 2992-2998.	2.6	3
52	Structural analysis of the degradation products of porphyran digested by <i>Zobellia galactanivorans</i> Î <sup>2</sup> -porphyranase A. <i>Carbohydrate Polymers</i> , 2011, 83, 277-283.	10.2	73
53	Analysis of a New Family of Widely Distributed Metal-independent Î±-Mannosidases Provides Unique Insight into the Processing of N-Linked Glycans. <i>Journal of Biological Chemistry</i> , 2011, 286, 15586-15596.	3.4	65
54	Transfer of carbohydrate-active enzymes from marine bacteria to Japanese gut microbiota. <i>Nature</i> , 2010, 464, 908-912.	27.8	905

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55	Portrait of an Enzyme, a Complete Structural Analysis of a Multimodular $\beta$ -N-Acetylglucosaminidase from <i>Clostridium perfringens</i> . <i>Journal of Biological Chemistry</i> , 2009, 284, 9876-9884.	3.4	40
56	Autoproteolytic stability of a trypsin from the marine crab <i>Cancer pagurus</i> . <i>Biochemical and Biophysical Research Communications</i> , 2008, 370, 566-571.	2.1	15