Otto Geiger

List of Publications by Citations

84 papers	3,848 citations	34 h-index	61 g-index
87 ext. papers	4,423 ext. citations	5 avg, IF	5.48 L-index

#	Paper	IF	Citations
84	A novel highly unsaturated fatty acid moiety of lipo-oligosaccharide signals determines host specificity of Rhizobium. *Nature*, **1991**, 354, 125-30	50.4	513
83	Bacterial membrane lipids: diversity in structures and pathways. *FEMS Microbiology Reviews*, **2016**, 40, 133-59	15.1	481
82	Biosynthesis of phosphatidylcholine in bacteria. *Progress in Lipid Research*, **2003**, 42, 115-62	14.3	227
81	The regulator gene phoB mediates phosphate stress-controlled synthesis of the membrane lipid diacylglyceryl-N,N,N-trimethylhomoserine in Rhizobium (Sinorhizobium) meliloti. *Molecular Microbiology*, **1999**, 32, 63-73	4.1	124
80	Phosphatidylcholine biosynthesis and function in bacteria. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids*, **2013**, 1831, 503-13	5	121
79	A global analysis of protein expression profiles in Sinorhizobium meliloti: discovery of new genes for nodule occupancy and stress adaptation. *Molecular Plant-Microbe Interactions*, **2003**, 16, 508-24	3.6	113
78	Amino acid-containing membrane lipids in bacteria. *Progress in Lipid Research*, **2010**, 49, 46-60	14.3	111
77	Isolation of the Rhizobium leguminosarum NodF nodulation protein: NodF carries a 4∀phosphopantetheine prosthetic group. *Journal of Bacteriology*, **1991**, 173, 2872-8	3.5	88
76	Membrane lipids in plant-associated bacteria: their biosyntheses and possible functions. *Molecular Plant-Microbe Interactions*, **2003**, 16, 567-79	3.6	83
75	Sinorhizobium meliloti phospholipase C required for lipid remodeling during phosphorus limitation. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 302-7	11.5	81
74	Plant-exuded choline is used for rhizobial membrane lipid biosynthesis by phosphatidylcholine synthase. *Journal of Biological Chemistry*, **1999**, 274, 20011-6	5.4	78
73	Pathways for phosphatidylcholine biosynthesis in bacteria. *Microbiology (United Kingdom)*, **2003**, 149, 3461-3471	2.9	76
72	The lipid lysyl-phosphatidylglycerol is present in membranes of Rhizobium tropici CIAT899 and confers increased resistance to polymyxin B under acidic growth conditions. *Molecular Plant-Microbe Interactions*, **2007**, 20, 1421-30	3.6	74
71	Cloning and characterization of the gene for phosphatidylcholine synthase. *Journal of Biological Chemistry*, **2000**, 275, 18919-25	5.4	72
70	Phosphatidylcholine levels in Bradyrhizobium japonicum membranes are critical for an efficient symbiosis with the soybean host plant. *Molecular Microbiology*, **2004**, 39, 1186-1198	4.1	71
69	Identification of a gene required for the formation of lyso-ornithine lipid, an intermediate in the biosynthesis of ornithine-containing lipids. *Molecular Microbiology*, **2004**, 53, 1757-70	4.1	68
68	Phosphatidylcholine synthesis is required for optimal function of Legionella pneumophila virulence determinants. *Cellular Microbiology*, **2008**, 10, 514-28	3.9	67

67	Inactivation of the gene for phospholipid N-methyltransferase in Sinorhizobium meliloti: phosphatidylcholine is required for normal growth. *Molecular Microbiology*, **2000**, 37, 763-72	4.1	65
66	Identification of a gene required for the biosynthesis of ornithine-derived lipids. *Molecular Microbiology*, **2002**, 45, 721-33	4.1	62
65	Bacterial lipid diversity. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids*, **2017**, 1862, 1287-1299	5	58
64	Rhizobium meliloti mutants deficient in phospholipid N-methyltransferase still contain phosphatidylcholine. *Journal of Bacteriology*, **1997**, 179, 6921-8	3.5	57
63	A ClC chloride channel homolog and ornithine-containing membrane lipids of Rhizobium tropici CIAT899 are involved in symbiotic efficiency and acid tolerance. *Molecular Plant-Microbe Interactions*, **2005**, 18, 1175-85	3.6	53
62	Hydroxylated ornithine lipids increase stress tolerance in Rhizobium tropici CIAT899. *Molecular Microbiology*, **2011**, 79, 1496-514	4.1	52
61	FadD is required for utilization of endogenous fatty acids released from membrane lipids. *Journal of Bacteriology*, **2011**, 193, 6295-304	3.5	52
60	Phosphorus-free membrane lipids of Sinorhizobium meliloti are not required for the symbiosis with alfalfa but contribute to increased cell yields under phosphorus-limiting conditions of growth. *Molecular Plant-Microbe Interactions*, **2005**, 18, 973-82	3.6	52
59	Plasmids with a chromosome-like role in rhizobia. *Journal of Bacteriology*, **2011**, 193, 1317-26	3.5	50
58	Crystalline quinoprotein glucose dehydrogenase from Acinetobacter calcoaceticus. *Biochemistry*, **1986**, 25, 6043-6048	3.2	48
57	Novel pathway for phosphatidylcholine biosynthesis in bacteria associated with eukaryotes. *Journal of Biotechnology*, **2001**, 91, 211-21	3.7	47
56	Reversible thermal inactivation of the quinoprotein glucose dehydrogenase from Acinetobacter calcoaceticus. Ca2+ ions are necessary for re-activation. *Biochemical Journal*, **1989**, 261, 415-21	3.8	45
55	A eukaryote-like cardiolipin synthase is present in Streptomyces coelicolor and in most actinobacteria. *Journal of Biological Chemistry*, **2009**, 284, 17383-90	5.4	42
54	Ornithine lipids and their structural modifications: from A to E and beyond. *FEMS Microbiology Letters*, **2012**, 335, 1-10	2.9	39
53	Enzymatic determination of pyrroloquinoline quinone using crude membranes from Escherichia coli. *Analytical Biochemistry*, **1987**, 164, 418-23	3.1	39
52	The Sinorhizobium medicae WSM419 lpiA gene is transcriptionally activated by FsrR and required to enhance survival in lethal acid conditions. *Microbiology (United Kingdom)*, **2006**, 152, 3049-3059	2.9	38
51	The nodulation protein NodG shows the enzymatic activity of an 3-oxoacyl-acyl carrier protein reductase. *Molecular Plant-Microbe Interactions*, **2001**, 14, 349-57	3.6	35
50	Serine residue 45 of nodulation protein NodF from Rhizobium leguminosarum bv. viciae is essential for its biological function. *Journal of Bacteriology*, **1994**, 176, 7740-3	3.5	33

49	Discovery of a bifunctional acyltransferase responsible for ornithine lipid synthesis in Serratia proteamaculans. *Environmental Microbiology*, **2015**, 17, 1487-96	5.2	32
48	Rhizobial acyl carrier proteins and their roles in the formation of bacterial cell-surface components that are required for the development of nitrogen-fixing root nodules on legume hosts. *FEMS Microbiology Letters*, **2002**, 208, 153-62	2.9	32
47	The dioxygenase-encoding olsD gene from Burkholderia cenocepacia causes the hydroxylation of the amide-linked fatty acyl moiety of ornithine-containing membrane lipids. *Biochemistry*, **2011**, 50, 6396-408	3.2	31
46	Disruption of a gene essential for sulfoquinovosyldiacylglycerol biosynthesis in Sinorhizobium meliloti has no detectable effect on root nodule symbiosis. *Molecular Plant-Microbe Interactions*, **2000**, 13, 666-72	3.6	31
45	Multiple phospholipid N-methyltransferases with distinct substrate specificities are encoded in Bradyrhizobium japonicum. *Journal of Bacteriology*, **2008**, 190, 571-80	3.5	29
44	Characterization of a novel acyl carrier protein, RkpF, encoded by an operon involved in capsular polysaccharide biosynthesis in Sinorhizobium meliloti. *Journal of Bacteriology*, **1998**, 180, 4950-4	3.5	28
43	Agrobacteria lacking ornithine lipids induce more rapid tumour formation. *Environmental Microbiology*, **2013**, 15, 895-906	5.2	27
42	Phosphatidylethanolamine is not essential for growth of Sinorhizobium meliloti on complex culture media. *Journal of Bacteriology*, **2004**, 186, 1667-77	3.5	26
41	Altered lipid A structures and polymyxin hypersensitivity of Rhizobium etli mutants lacking the LpxE and LpxF phosphatases. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids*, **2010**, 1801, 593-604	5	24
40	Biosynthesis and excretion of cyclic glucans by Rhizobium meliloti 1021. *Journal of Bacteriology*, **1991**, 173, 3021-4	3.5	24
39	Sinorhizobium meliloti mutants deficient in phosphatidylserine decarboxylase accumulate phosphatidylserine and are strongly affected during symbiosis with alfalfa. *Journal of Bacteriology*, **2008**, 190, 6846-56	3.5	20
38	NMR investigations of the structural properties of the nodulation protein, NodF, from Rhizobium leguminosarum and its homology with Escherichia coli acyl carrier protein. *FEBS Letters*, **1996**, 388, 66-72	3.8	18
37	Transcriptional interference and repression modulate the conjugative ability of the symbiotic plasmid of Rhizobium etli. *Journal of Bacteriology*, **2008**, 190, 4189-97	3.5	17
36	NodFE-dependent fatty acids that lack an alpha-beta unsaturation are subject to differential transfer, leading to novel phospholipids. *Molecular Plant-Microbe Interactions*, **1998**, 11, 33-44	3.6	16
35	OlsG (Sinac_1600) Is an Ornithine Lipid N-Methyltransferase from the Planctomycete Singulisphaera acidiphila. *Journal of Biological Chemistry*, **2015**, 290, 15102-11	5.4	15
34	Functional and topological analysis of phosphatidylcholine synthase from Sinorhizobium meliloti. *Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids*, **2012**, 1821, 573-81	5	15
33	Phosphatidylcholine levels of peanut-nodulating Bradyrhizobium sp. SEMIA 6144 affect cell size and motility. *FEMS Microbiology Letters*, **2010**, 303, 123-31	2.9	15
32	Expression and purification of four different rhizobial acyl carrier proteins. *Microbiology (United Kingdom)*, **2000**, 146 (Pt 4), 839-849	2.9	15

31	Membrane-derived oligosaccharides affect porin osmoregulation only in media of low ionic strength. *Journal of Bacteriology*, **1992**, 174, 1410-3	3.5	13
30	The Molecular Basis of Host Specificity in the RhizobiumLeguminosarum-Plant Interaction. *Current Plant Science and Biotechnology in Agriculture*, **1994**, 91-98		13
29	The Function of the Rhizobial NodABC and NodFEL Operons in the Biosynthesis of Lipo-Oligosaccharides. *Current Plant Science and Biotechnology in Agriculture*, **1993**, 165-170		12
28	2-Tridecanone impacts surface-associated bacterial behaviours and hinders plant-bacteria interactions. *Environmental Microbiology*, **2018**, 20, 2049-2065	5.2	11
27	SMb20651 is another acyl carrier protein from Sinorhizobium meliloti. *Microbiology (United Kingdom)*, **2009**, 155, 257-267	2.9	9
26	Fatty acid-releasing activities in Sinorhizobium meliloti include unusual diacylglycerol lipase. *Environmental Microbiology*, **2015**, 17, 3391-406	5.2	8
25	SMc01553 is the sixth acyl carrier protein in Sinorhizobium meliloti 1021. *Microbiology (United Kingdom)*, **2010**, 156, 230-239	2.9	7
24	1,2-Diacylglycerol choline phosphotransferase catalyzes the final step in the unique Treponema denticola phosphatidylcholine biosynthesis pathway. *Molecular Microbiology*, **2017**, 103, 896-912	4.1	6
23	Deletion of the 2-acyl-glycerophosphoethanolamine cycle improve glucose metabolism in Escherichia coli strains employed for overproduction of aromatic compounds. *Microbial Cell Factories*, **2015**, 14, 194	6.4	6
22	Role of rhizobial lipo-oligosacharides in root nodule formation on leguminous plants. *Plant and Soil*, **1994**, 161, 81-89	4.2	5
21	Phospholipids and Alternative Membrane Lipids **1998**, 55-80		4
20	Defining Substrate Specificities for Lipase and Phospholipase Candidates. *Journal of Visualized Experiments*, **2016**,	1.6	3
19	Mode of Binding of Pyrroloquinoline Quinone to Glucose Dehydrogenase from Acinetobacter Calcoaceticus **1989**, 100-102		3
18	Five structural genes required for ceramide synthesis in Caulobacter and for bacterial survival. *Environmental Microbiology*, **2021**, 23, 143-159	5.2	3
17	Membrane Lipid Degradation and Lipid Cycles in Microbes **2019**, 231-254		2
16	Membrane Lipid Degradation and Lipid Cycles in Microbes **2017**, 1-24		2
15	Bacterial Sphingolipids and Sulfonolipids **2019**, 123-137		2
14	ExoS/ChvI Two-Component Signal-Transduction System Activated in the Absence of Bacterial Phosphatidylcholine. *Frontiers in Plant Science*, **2021**, 12, 678976	6.2	2

13	Formation of Bacterial Glycerol-Based Membrane Lipids: Pathways, Enzymes, and Reactions **2019**, 87-107		1
12	Lipids and Legionella Virulence **2019**, 1-12		1
11	Evidence of codon usage in the nearest neighbor spacing distribution of bases in bacterial genomes. *Physica A: Statistical Mechanics and Its Applications*, **2012**, 391, 1255-1269	3.3	1
10	Formation of Bacterial Glycerol-Based Membrane Lipids: Pathways, Enzymes, and Reactions **2018**, 1-21		1
9	Rhizobial Volatiles: Potential New Players in the Complex Interkingdom Signaling With Legumes. *Frontiers in Plant Science*, **2021**, 12, 698912	6.2	1
8	Role of and Long-Chain Acyl-CoA Synthetase FadD in Long-Term Survival. *Microorganisms*, **2020**, 8,	4.9	1
7	Formation of Fatty Acids **2019**, 43-55		0
6	Lipids and Legionella Virulence **2020**, 133-144		
5	Formation of Fatty Acids **2018**, 1-13		
4	Bacterial Sphingolipids and Sulfonolipids **2018**, 1-15		
3	Role of rhizobial lipo-oligosacharides in root nodule formation on leguminous plants **1994**, 81-89		
2	Structural Determination and Biosynthetic Studies of the Rhizobial Nod Metabolites: The Lipo-Chitin Oligosaccharides **1996**, 385-401		
1	Recent Developments on Bacterial Evolution into Eukaryotic Cells **2016**, 187-202		