Thomas Gutsmann

List of Publications by Year
in descending order

79 papers	4,337 citations	101496 36 h-index	110317 64 g-index
80 all docs	80 docs citations	80 times ranked	5993 citing authors

#	Article	IF	Citations
1	Candidalysin is a fungal peptide toxin critical for mucosal infection. Nature, 2016, 532, 64-68.	13.7	628
2	Sacrificial Bonds and Hidden Length: Unraveling Molecular Mesostructures in Tough Materials. Biophysical Journal, 2006, 90, 1411-1418.	0.2	273
3	The mode of action of the lantibiotic lacticin 3147 - a complex mechanism involving specific interaction of two peptides and the cell wall precursor lipid II. Molecular Microbiology, 2006, 61, 285-296.	1.2	202
4	Dual Role of Lipopolysaccharide (LPS)-Binding Protein in Neutralization of LPS and Enhancement of LPS-Induced Activation of Mononuclear Cells. Infection and Immunity, 2001, 69, 6942-6950.	1.0	187
5	Protein reconstitution into freestanding planar lipid membranes for electrophysiological characterization. Nature Protocols, 2015, 10, 188-198.	5.5	134
6	The Intestinal Archaea Methanosphaera stadtmanae and Methanobrevibacter smithii Activate Human Dendritic Cells. PLoS ONE, 2014, 9, e99411.	1.1	127
7	Quantitative determination of ion distributions in bacterial lipopolysaccharide membranes by grazing-incidence X-ray fluorescence. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 9147-9151.	3.3	112
8	Force Spectroscopy of Collagen Fibers to Investigate Their Mechanical Properties and Structural Organization. Biophysical Journal, 2004, 86, 3186-3193.	0.2	111
9	New Antiseptic Peptides To Protect against Endotoxin-Mediated Shock. Antimicrobial Agents and Chemotherapy, 2010, 54, 3817-3824.	1.4	111
10	Biophysical Mechanisms of Endotoxin Neutralization by Cationic Amphiphilic Peptides. Biophysical Journal, 2011, 100, 2652-2661.	0.2	111
11	Evidence that Collagen Fibrils in Tendons Are Inhomogeneously Structured in a Tubelike Manner. Biophysical Journal, 2003, 84, 2593-2598.	0.2	109
12	Effect of Matrix Elasticity on the Maintenance of the Chondrogenic Phenotype. Tissue Engineering - Part A, 2010, 16, 1281-1290.	1.6	109
13	Hydramacin-1, Structure and Antibacterial Activity of a Protein from the Basal Metazoan Hydra. Journal of Biological Chemistry, 2009, 284, 1896-1905.	1.6	107
14	The physicochemistry of endotoxins in relation to bioactivity. International Journal of Medical Microbiology, 2007, 297, 341-352.	1.5	98
15	Structure-Activity Analysis of the Dermcidin-derived Peptide DCD-1L, an Anionic Antimicrobial Peptide Present in Human Sweat. Journal of Biological Chemistry, 2012, 287, 8434-8443.	1.6	85
16	Multiple Peptide Resistance Factor (MprF)-mediated Resistance of Staphylococcus aureus against Antimicrobial Peptides Coincides with a Modulated Peptide Interaction with Artificial Membranes Comprising Lysyl-Phosphatidylglycerol. Journal of Biological Chemistry, 2011, 286, 18692-18700.	1.6	84
17	Neutrophil extracellular trap formation in the<i>Streptococcus suis</i>-infected cerebrospinal fluid compartment. Cellular Microbiology, 2017, 19, e12649.	1.1	79
18	Preclinical Investigations Reveal the Broad-Spectrum Neutralizing Activity of Peptide Pep19-2.5 on Bacterial Pathogenicity Factors. Antimicrobial Agents and Chemotherapy, 2013, 57, 1480-1487.	1.4	78

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19	Correlation of AFM and SFA Measurements Concerning the Stability of Supported Lipid Bilayers. Biophysical Journal, 2004, 86, 870-879.	0.2	68
20	Interaction of CAP18-Derived Peptides with Membranes Made from Endotoxins or Phospholipids. Biophysical Journal, 2001, 80, 2935-2945.	0.2	62
21	Bacterial Cell Wall Compounds as Promising Targets of Antimicrobial Agents I. Antimicrobial Peptides and Lipopolyamines. Current Drug Targets, 2012, 13, 1121-1130.	1.0	62
22	Dermcidin-Derived Peptides Show a Different Mode of Action than the Cathelicidin LL-37 against <i>Staphylococcus aureus</i>. Antimicrobial Agents and Chemotherapy, 2009, 53, 2499-2509.	1.4	61
23	Giant Bent-Core Mesogens in the Thread Forming Process of Marine Mussels. Biomacromolecules, 2004, 5, 1351-1355.	2.6	57
24	Surfactant Protein A Inhibits Lipopolysaccharide-Induced Immune Cell Activation by Preventing the Interaction of Lipopolysaccharide with Lipopolysaccharide-Binding Protein. American Journal of Respiratory Cell and Molecular Biology, 2002, 27, 353-360.	1.4	55
25	Thermodynamic Analysis of the Lipopolysaccharide-Dependent Resistance of Gram-Negative Bacteria against Polymyxin B. Biophysical Journal, 2007, 92, 2796-2805.	0.2	54
26	Surface Acoustic Wave Biosensor as a Tool to Study the Interaction of Antimicrobial Peptides with Phospholipid and Lipopolysaccharide Model Membranes. Langmuir, 2008, 24, 9148-9153.	1.6	54
27	Morphology, size distribution, and aggregate structure of lipopolysaccharide and lipid A dispersions from enterobacterial origin. Innate Immunity, 2011, 17, 427-438.	1.1	54
28	Bacterial lipopolysaccharides form physically cross-linked, two-dimensional gels in the presence of divalent cations. Soft Matter, 2015, 11, 6037-6044.	1.2	49
29	Mechanisms of endotoxin neutralization by synthetic cationic compounds. Journal of Endotoxin Research, 2006, 12, 261-277.	2.5	48
30	Physicochemical and Biological Analysis of Synthetic Bacterial Lipopeptides. Journal of Biological Chemistry, 2007, 282, 11030-11037.	1.6	48
31	Inhibition of Lipopolysaccharide- and Lipoprotein-Induced Inflammation by Antitoxin Peptide Pep19-2.5. Frontiers in Immunology, 2018, 9, 1704.	2.2	48
32	ADAM10 sheddase activation is controlled by cell membrane asymmetry. Journal of Molecular Cell Biology, 2019, 11, 979-993.	1.5	48
33	Lipopolysaccharide-binding protein-mediated interaction of lipid A from different origin with phospholipid membranes. Physical Chemistry Chemical Physics, 2000, 2, 4521-4528.	1.3	46
34	Peptide-based treatment of sepsis. Applied Microbiology and Biotechnology, 2011, 90, 799-808.	1.7	41
35	Investigations into the polymorphism of rat tail tendon fibrils using atomic force microscopy. Biochemical and Biophysical Research Communications, 2003, 303, 508-513.	1.0	38
36	Probing the Properties of Lipopolysaccharide Monolayers and Their Interaction with the Antimicrobial Peptide Polymyxin B by Atomic Force Microscopy. Langmuir, 2005, 21, 6970-6978.	1.6	37

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37	Impact of the glycostructure of amphiphilic membrane components on the function of the outer membrane of Gram-negative bacteria as a matrix for incorporated channels and a target for antimicrobial peptides or proteins. European Journal of Cell Biology, 2010, 89, 11-23.	1.6	37
38	Structure and function of a unique pore-forming protein from a pathogenic acanthamoeba. Nature Chemical Biology, 2013, 9, 37-42.	3.9	36
39	Towards antibacterial strategies: studies on the mechanisms of interaction between antibacterial peptides and model membranes. Journal of Endotoxin Research, 2003, 9, 67-84.	2.5	34
40	Molecular basis for endotoxin neutralization by amphipathic peptides derived from the Î±-helical cationic core-region of NK-lysin. Biophysical Chemistry, 2010, 150, 80-87.	1.5	31
41	Virulenceâ€associated protein A from<i>Rhodococcus equi</i>is an intercompartmental pHâ€neutralising virulence factor. Cellular Microbiology, 2019, 21, e12958.	1.1	30
42	Pore Formation and Function of Phosphoporin PhoE of Escherichia coli Are Determined by the Core Sugar Moiety of Lipopolysaccharide. Journal of Biological Chemistry, 2002, 277, 34247-34253.	1.6	26
43	Localization of the Lipopolysaccharide-binding Protein in Phospholipid Membranes by Atomic Force Microscopy. Journal of Biological Chemistry, 2006, 281, 2757-2763.	1.6	26
44	Antimicrobial endotoxinâ€neutralizing peptides promote keratinocyte migration <i>via</i> P2X7 receptor activation and accelerate wound healing <i>in vivo</i>. British Journal of Pharmacology, 2018, 175, 3581-3593.	2.7	26
45	Inner Field Compensation as a Tool for the Characterization of Asymmetric Membranes and Peptide-Membrane Interactions. Biophysical Journal, 2004, 86, 913-922.	0.2	23
46	Modulation of enrofloxacin binding in OmpF by Mg2+ as revealed by the analysis of fast flickering single-porin current. Journal of General Physiology, 2012, 140, 69-82.	0.9	23
47	Lipidâ€Labeling Facilitates a Novel Magnetic Isolation Procedure to Characterize Pathogenâ€Containing Phagosomes. Traffic, 2013, 14, 321-336.	1.3	23
48	Sacrificial Bonds in Polymer Brushes from Rat Tail Tendon Functioning as Nanoscale Velcro. Biophysical Journal, 2005, 89, 536-542.	0.2	21
49	The Beauty of Asymmetric Membranes: Reconstitution of the Outer Membrane of Gram-Negative Bacteria. Frontiers in Cell and Developmental Biology, 2020, 8, 586.	1.8	21
50	Immunogenic properties of the human gut-associated archaeon Methanomassiliicoccus luminyensis and its susceptibility to antimicrobial peptides. PLoS ONE, 2017, 12, e0185919.	1.1	21
51	In vitro activity of human and animal cathelicidins against livestock-associated methicillin-resistant Staphylococcus aureus. Veterinary Microbiology, 2016, 194, 107-111.	0.8	19
52	Novel Synthetic, Host-defense Peptide Protects Against Organ Injury/Dysfunction in a Rat Model of Severe Hemorrhagic Shock. Annals of Surgery, 2018, 268, 348-356.	2.1	18
53	The C-Terminal VPRTES Tail of LL-37 Influences the Mode of Attachment to a Lipid Bilayer and Antimicrobial Activity. Biochemistry, 2019, 58, 2447-2462.	1.2	18
54	Surface activity and structures of two fragments of the human antimicrobial LL-37. Colloids and Surfaces B: Biointerfaces, 2013, 109, 129-135.	2.5	17

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55	Coupling killing to neutralization: combined therapy with ceftriaxone/Pep19-2.5 counteracts sepsis in rabbits. Experimental and Molecular Medicine, 2017, 49, e345-e345.	3.2	17
56	Innate recognition of bacteria: engagement of multiple receptors. Critical Reviews in Immunology, 2002, 22, 251-68.	1.0	16
57	Antibacterial action of synthetic antilipopolysaccharide peptides (SALP) involves neutralization of both membraneâ€bound and free toxins. FEBS Journal, 2019, 286, 1576-1593.	2.2	12
58	Mechanism of HbÎ³-35-induced an increase in the activation of the human immune system by endotoxins. Innate Immunity, 2015, 21, 305-313.	1.1	11
59	Structural preferences of dioleoyl glycolipids with mono- and disaccharide head groups. Chemistry and Physics of Lipids, 2007, 149, 52-58.	1.5	10
60	Bacterial Cell Wall Compounds as Promising Targets of Antimicrobial Agents II. Immunological and Clinical Aspects. Current Drug Targets, 2012, 13, 1131-1137.	1.0	10
61	Quantification of the Influence of Endotoxins on the Mechanics of Adult and Neonatal Red Blood Cells. Journal of Physical Chemistry B, 2015, 119, 7837-7845.	1.2	10
62	Physicochemical and Biological Characterization of Anti-Endotoxin Peptides and Their Influence on Lipid Properties. Protein and Peptide Letters, 2010, 17, 1328-1333.	0.4	10
63	Structural polymorphism of hydrated ether-linked dimyristyl maltoside and melibioside. Chemistry and Physics of Lipids, 2008, 151, 18-29.	1.5	9
64	Therapeutical Administration of Peptide Pep19-2.5 and Ibuprofen Reduces Inflammation and Prevents Lethal Sepsis. PLoS ONE, 2015, 10, e0133291.	1.1	9
65	Effects of SecDF on the antimicrobial functions of cathelicidins against Staphylococcus aureus. Veterinary Microbiology, 2017, 200, 52-58.	0.8	8
66	Testing cathelicidin susceptibility of bacterial mastitis isolates: Technical challenges and data output for clinical isolates. Veterinary Microbiology, 2017, 210, 107-115.	0.8	8
67	Peptide drug stability: The anti-inflammatory drugs Pep19-2.5 and Pep19-4LF in cream formulation. European Journal of Pharmaceutical Sciences, 2018, 115, 240-247.	1.9	8
68	Inactivation of Bacteria by Î³-Irradiation to Investigate the Interaction with Antimicrobial Peptides. Biophysical Journal, 2019, 117, 1805-1819.	0.2	8
69	Biophysical Mechanisms of the Neutralization of Endotoxins by Lipopolyamines. The Open Biochemistry Journal, 2013, 7, 82-93.	0.3	8
70	Membrane activity of a Câ€reactive protein. FEBS Letters, 2009, 583, 1001-1005.	1.3	6
71	Biophysical analysis of the interaction of the serum protein human Î²₂GPI with bacterial lipopolysaccharide. FEBS Open Bio, 2014, 4, 432-440.	1.0	5
72	Encapsulation and release of As pidasept peptides in polysaccharide formulation for oral application. European Journal of Pharmaceutical Sciences, 2021, 158, 105687.	1.9	5

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73	Biophysical investigations into the interactions of endotoxins with bile acids. Innate Immunity, 2012, 18, 307-317.	1.1	3
74	Flagellin lysine methyltransferase FliB catalyzes a [4Fe-4S] mediated methyl transfer reaction. PLoS Pathogens, 2021, 17, e1010052.	2.1	3
75	Cellular distribution of lipid A and LPS R595 after inÂvitro application to isolated human monocytes by freeze-fracture replica immunogold-labelling. Innate Immunity, 2013, 19, 588-595.	1.1	1
76	Biophysical Investigations on the Interaction between Antimicrobial Peptides and Bacteria Killed by Cs-137 Irradiation. Biophysical Journal, 2016, 110, 79a.	0.2	1
77	The role of mycobacterial ESX-1 secretion systems in phagosome escape. Biophysical Journal, 2022, 121, 369a.	0.2	1
78	Interaction Between Host Defence Peptides and Mycobacterial Membranes. Biophysical Journal, 2014, 106, 507a.	0.2	0
79	Enhancing actions of peptides derived from the Î³-chain of fetal human hemoglobin on the immunostimulant activities of monophosphoryl lipid A. Innate Immunity, 2016, 22, 168-180.	1.1	0