Gerard C L Wong

List of Publications by Year
in descending order

78 papers	5,606 citations	101384 36 h-index	85405 71 g-index
80 all docs	80 docs citations	80 times ranked	7487 citing authors

#	Article	IF	Citations
1	Erratum for Thorsen et al., â€œHighly Basic Clusters in the Herpes Simplex Virus 1 Nuclear Egress Complex Drive Membrane Budding by Inducing Lipid Orderingâ€. MBio, 2022, 13, e0367321.	1.8	0
2	Broadcasting of amplitude- and frequency-modulated c-di-GMP signals facilitates cooperative surface commitment in bacterial lineages. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	4
3	Force-Induced Changes of PilY1 Drive Surface Sensing by Pseudomonas aeruginosa. MBio, 2022, 13, e0375421.	1.8	15
4	Histidineâ€Mediated Ion Specific Effects Enable Salt Tolerance of a Poreâ€Forming Marine Antimicrobial Peptide. Angewandte Chemie - International Edition, 2022, , .	7.2	6
5	Nonmotile Subpopulations of <i>Pseudomonas aeruginosa</i> Repress Flagellar Motility in Motile Cells through a Type IV Pilus- and Pel-Dependent Mechanism. Journal of Bacteriology, 2022, 204, e0052821.	1.0	5
6	The Power of Touch: Type 4 Pili, the von Willebrand A Domain, and Surface Sensing by Pseudomonas aeruginosa. Journal of Bacteriology, 2022, 204, .	1.0	19
7	Roadmap on emerging concepts in the physical biology of bacterial biofilms: from surface sensing to community formation. Physical Biology, 2021, 18, 051501.	0.8	46
8	Interaction between the type 4 pili machinery and a diguanylate cyclase fine-tune c-di-GMP levels during early biofilm formation. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	29
9	Sequence determinants in the cathelicidin LL-37 that promote inflammation via presentation of RNA to scavenger receptors. Journal of Biological Chemistry, 2021, 297, 100828.	1.6	8
10	Highly Basic Clusters in the Herpes Simplex Virus 1 Nuclear Egress Complex Drive Membrane Budding by Inducing Lipid Ordering. MBio, 2021, 12, e0154821.	1.8	17
11	Silver nanoparticles boost charge-extraction efficiency in <i>Shewanella</i> microbial fuel cells. Science, 2021, 373, 1336-1340.	6.0	171
12	Apolipoprotein Mimetic Peptide Inhibits Neutrophil-Driven Inflammatory Damage via Membrane Remodeling and Suppression of Cell Lysis. ACS Nano, 2021, 15, 15930-15939.	7.3	7
13	PACAP is a pathogen-inducible resident antimicrobial neuropeptide affording rapid and contextual molecular host defense of the brain. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	26
14	Prototypical pacemaker neurons interact with the resident microbiota. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 17854-17863.	3.3	47
15	Selective Promotion of Adhesion of <i>Shewanella oneidensis</i> on Mannose-Decorated Glycopolymer Surfaces. ACS Applied Materials & Interfaces, 2020, 12, 35767-35781.	4.0	11
16	Functional Reciprocity of Amyloids and Antimicrobial Peptides: Rethinking the Role of Supramolecular Assembly in Host Defense, Immune Activation, and Inflammation. Frontiers in Immunology, 2020, 11, 1629.	2.2	44
17	Discovery of Novel Type II Bacteriocins Using a New High-Dimensional Bioinformatic Algorithm. Frontiers in Immunology, 2020, 11, 1873.	2.2	13
18	Clostridioides difficile Toxin A Remodels Membranes and Mediates DNA Entry Into Cells to Activate Toll-Like Receptor 9 Signaling. Gastroenterology, 2020, 159, 2181-2192.e1.	0.6	11

#	Article	IF	Citations
19	Chemokine CCL28 Is a Potent Therapeutic Agent for Oropharyngeal Candidiasis. Antimicrobial Agents and Chemotherapy, 2020, 64, .	1.4	8
20	Switchable Membrane Remodeling and Antifungal Defense by Metamorphic Chemokine XCL1. ACS Infectious Diseases, 2020, 6, 1204-1213.	1.8	6
21	Reciprocal c-di-GMP signaling: Incomplete flagellum biogenesis triggers c-di-GMP signaling pathways that promote biofilm formation. PLoS Genetics, 2020, 16, e1008703.	1.5	44
22	c-di-GMP modulates type IV MSHA pilus retraction and surface attachment in Vibrio cholerae. Nature Communications, 2020, 11, 1549.	5.8	70
23	Social Cooperativity of Bacteria during Reversible Surface Attachment in Young Biofilms: a Quantitative Comparison of Pseudomonas aeruginosa PA14 and PAO1. MBio, 2020, 11, .	1.8	47
24	How do cyclic antibiotics with activity against Gram-negative bacteria permeate membranes? A machine learning informed experimental study. Biochimica Et Biophysica Acta - Biomembranes, 2020, 1862, 183302.	1.4	8
25	Correction for Zamorano-SÃ¡nchez et al., â€œFunctional Specialization in Vibrio cholerae Diguanylate Cyclases: Distinct Modes of Motility Suppression and c-di-GMP Productionâ€• MBio, 2020, 11, .	1.8	2
26	Functional Specialization in <i>Vibrio cholerae</i> Diguanylate Cyclases: Distinct Modes of Motility Suppression and c-di-GMP Production. MBio, 2019, 10, .	1.8	51
27	CXCL4 assembles DNA into liquid crystalline complexes to amplify TLR9-mediated interferon-Î± production in systemic sclerosis. Nature Communications, 2019, 10, 1731.	5.8	90
28	Externalized histone H4 orchestrates chronic inflammation by inducing lytic cell death. Nature, 2019, 569, 236-240.	13.7	268
29	Helical antimicrobial peptides assemble into protofibril scaffolds that present ordered dsDNA to TLR9. Nature Communications, 2019, 10, 1012.	5.8	53
30	Unifying structural signature of eukaryotic Î±-helical host defense peptides. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 6944-6953.	3.3	39
31	Modulation of toll-like receptor signaling by antimicrobial peptides. Seminars in Cell and Developmental Biology, 2019, 88, 173-184.	2.3	69
32	Cathelicidin promotes inflammation by enabling binding of self-RNA to cell surface scavenger receptors. Scientific Reports, 2018, 8, 4032.	1.6	58
33	Multigenerational memory and adaptive adhesion in early bacterial biofilm communities. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4471-4476.	3.3	132
34	Machine learning-enabled discovery and design of membrane-active peptides. Bioorganic and Medicinal Chemistry, 2018, 26, 2708-2718.	1.4	60
35	Machine learning antimicrobial peptide sequences: Some surprising variations on the theme of amphiphilic assembly. Current Opinion in Colloid and Interface Science, 2018, 38, 204-213.	3.4	18
36	What Can Pleiotropic Proteins in Innate Immunity Teach Us about Bioconjugation and Molecular Design?. Bioconjugate Chemistry, 2018, 29, 2127-2139.	1.8	8

#	Article	IF	Citations
37	Direct Antimicrobial Activity of IFN-Î². Journal of Immunology, 2017, 198, 4036-4045.	0.4	48
38	Emergence of complex behavior in pili-based motility in early stages of P. aeruginosa surface adaptation. Scientific Reports, 2017, 7, 45467.	1.6	13
39	Crystallinity of Double-Stranded RNA-Antimicrobial Peptide Complexes Modulates Toll-Like Receptor 3-Mediated Inflammation. ACS Nano, 2017, 11, 12145-12155.	7.3	30
40	What can machine learning do for antimicrobial peptides, and what can antimicrobial peptides do for machine learning?. Interface Focus, 2017, 7, 20160153.	1.5	98
41	High-Speed â€œ4Dâ€•Computational Microscopy of Bacterial Surface Motility. ACS Nano, 2017, 11, 9340-9351.	7.3	23
42	Molecular Motor Dnm1 Synergistically Induces Membrane Curvature To Facilitate Mitochondrial Fission. ACS Central Science, 2017, 3, 1156-1167.	5.3	29
43	A Role for Neuronal Alpha-Synuclein in Gastrointestinal Immunity. Journal of Innate Immunity, 2017, 9, 456-463.	1.8	211
44	Bacterial amyloid curli acts as a carrier for DNA to elicit an autoimmune response via TLR2 and TLR9. PLoS Pathogens, 2017, 13, e1006315.	2.1	82
45	Effective Dynamics of Microorganisms That Interact with Their Own Trail. Physical Review Letters, 2016, 117, 038101.	2.9	32
46	Mapping membrane activity in undiscovered peptide sequence space using machine learning. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 13588-13593.	3.3	137
47	Interplay between type IV pili activity and exopolysaccharides secretion controls motility patterns in single cells of Myxococcus xanthus. Scientific Reports, 2016, 6, 17790.	1.6	18
48	Multicellular Self-Organization of <i>P. aeruginosa</i> due to Interactions with Secreted Trails. Physical Review Letters, 2016, 117, 178102.	2.9	31
49	Three-dimensional architecture ofVibrio cholerabiofilms. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3711-3713.	3.3	4
50	A review of immune amplification via ligand clustering by self-assembled liquidâ€“crystalline DNA complexes. Advances in Colloid and Interface Science, 2016, 232, 17-24.	7.0	18
51	Species-dependent hydrodynamics of flagellum-tethered bacteria in early biofilm development. Journal of the Royal Society Interface, 2016, 13, 20150966.	1.5	23
52	Oxidation of Membrane Curvature-Regulating Phosphatidylethanolamine Lipid Results in Formation of Bilayer and Cubic Structures. Langmuir, 2016, 32, 2450-2457.	1.6	19
53	S100A12 Is Part of the Antimicrobial Network against Mycobacterium leprae in Human Macrophages. PLoS Pathogens, 2016, 12, e1005705.	2.1	77
54	A Hierarchical Cascade of Second Messengers Regulates Pseudomonas aeruginosa Surface Behaviors. MBio, 2015, 6, .	1.8	182

#	Article	IF	Citations
55	C-di-GMP Regulates Motile to Sessile Transition by Modulating MshA Pili Biogenesis and Near-Surface Motility Behavior in Vibrio cholerae. PLoS Pathogens, 2015, 11, e1005068.	2.1	108
56	Liquid-crystalline ordering of antimicrobial peptideâ€“DNA complexes controls TLR9 activation. Nature Materials, 2015, 14, 696-700.	13.3	75
57	A Dynamic Network Formation Model for Understanding Bacterial Self-Organization Into Micro-Colonies. IEEE Transactions on Molecular, Biological, and Multi-Scale Communications, 2015, 1, 76-89.	1.4	9
58	Pentobra: A Potent Antibiotic with Multiple Layers of Selective Antimicrobial Mechanisms against Propionibacterium Acnes. Journal of Investigative Dermatology, 2015, 135, 1581-1589.	0.3	17
59	Reinventing Cell Penetrating Peptides Using Glycosylated Methionine Sulfonium Ion Sequences. ACS Central Science, 2015, 1, 83-88.	5.3	27
60	Living in the matrix: assembly and control of Vibrio cholerae biofilms. Nature Reviews Microbiology, 2015, 13, 255-268.	13.6	342
61	How Bacteria Use Type IV Pili Machinery on Surfaces. Trends in Microbiology, 2015, 23, 775-788.	3.5	165
62	Helical antimicrobial polypeptides with radial amphiphilicity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13155-13160.	3.3	166
63	Viral fusion protein transmembrane domain adopts Î²-strand structure to facilitate membrane topological changes for virusâ€“cell fusion. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10926-10931.	3.3	54
64	Two interdependent mechanisms of antimicrobial activity allow for efficient killing in nylon-3-based polymeric mimics of innate immunity peptides. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 2269-2279.	1.4	30
65	Engineering Persister-Specific Antibiotics with Synergistic Antimicrobial Functions. ACS Nano, 2014, 8, 8786-8793.	7.3	99
66	Vibrio cholerae use pili and flagella synergistically to effect motility switching and conditional surface attachment. Nature Communications, 2014, 5, 4913.	5.8	165
67	Antimicrobial peptides and induced membrane curvature: Geometry, coordination chemistry, and molecular engineering. Current Opinion in Solid State and Materials Science, 2013, 17, 151-163.	5.6	148
68	Psl trails guide exploration and microcolony formation in Pseudomonas aeruginosa biofilms. Nature, 2013, 497, 388-391.	13.7	308
69	Enhanced activity of cyclic transporter sequences driven by phase behavior of peptideâ€“lipid complexes. Soft Matter, 2012, 8, 6430.	1.2	15
70	Molecular Basis for Nanoscopic Membrane Curvature Generation from Quantum Mechanical Models and Synthetic Transporter Sequences. Journal of the American Chemical Society, 2012, 134, 19207-19216.	6.6	64
71	Translocation of HIV TAT peptide and analogues induced by multiplexed membrane and cytoskeletal interactions. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16883-16888.	3.3	287
72	Criterion for Amino Acid Composition of Defensins and Antimicrobial Peptides Based on Geometry of Membrane Destabilization. Journal of the American Chemical Society, 2011, 133, 6720-6727.	6.6	181

#	Article	IF	Citations
73	Small-Angle X-ray Scattering Studies of Peptideâ€"Lipid Interactions Using the Mouse Paneth Cell Î±-Defensin Cryptdin-4. Methods in Enzymology, 2011, 492, 127-149.	0.4	5
74	Arginineâ€rich cellâ€penetrating peptides. FEBS Letters, 2010, 584, 1806-1813.	1.3	433
75	Bacteria Use Type IV Pili to Walk Upright and Detach from Surfaces. Science, 2010, 330, 197-197.	6.0	168
76	Divalent Metal Ion Triggered Activity of a Synthetic Antimicrobial in Cardiolipin Membranes. Journal of the American Chemical Society, 2009, 131, 15102-15103.	6.6	48
77	Mechanism of a prototypical synthetic membrane-active antimicrobial: Efficient hole-punching via interaction with negative intrinsic curvature lipids. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 20595-20600.	3.3	107
78	Histidineâ€Mediated Ion Specific Effects Enable Salt Tolerance of a Poreâ€Forming Marine Antimicrobial Peptide. Angewandte Chemie, 0, , .	1.6	0