Christopher A Mcdevitt

List of Publications by Year
in descending order

86	3,860	117571	143943
papers	citations	34 h-index	57 g-index

93	93	93	4217
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	A Molecular Mechanism for Bacterial Susceptibility to Zinc. PLoS Pathogens, 2011, 7, e1002357.	2.1	387
2	The TatA component of the twin-arginine protein transport system forms channel complexes of variable diameter. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 10482-10486.	3.3	245
3	Imperfect coordination chemistry facilitates metal ion release in the Psa permease. Nature Chemical Biology, 2014, 10, 35-41.	3.9	137
4	Molecular analysis of dimethyl sulphide dehydrogenase from Rhodovulum sulfidophilum: its place in the dimethyl sulphoxide reductase family of microbial molybdopterin-containing enzymes. Molecular Microbiology, 2002, 44, 1575-1587.	1.2	129
5	Extracellular Zinc Competitively Inhibits Manganese Uptake and Compromises Oxidative Stress Management in Streptococcus pneumoniae. PLoS ONE, 2014, 9, e89427.	1.1	127
6	ZnuA and zinc homeostasis in Pseudomonas aeruginosa. Scientific Reports, 2015, 5, 13139.	1.6	126
7	The DMSO Reductase Family of Microbial Molybdenum Enzymes; Molecular Properties and Role in the Dissimilatory Reduction of Toxic Elements. Geomicrobiology Journal, 2002, 19, 3-21.	1.0	125
8	Purification and 3D Structural Analysis of Oligomeric Human Multidrug Transporter ABCG2. Structure, 2006, 14, 1623-1632.	1.6	117
9	Dysregulation of transition metal ion homeostasis is the molecular basis for cadmium toxicity in Streptococcus pneumoniae. Nature Communications, 2015, 6, 6418.	5.8	117
10	How can we best use structural information on P-glycoprotein to design inhibitors?. , 2007, 113, 429-441.		115
11	<scp>AdcA</scp> and <scp>AdcAII</scp> employ distinct zinc acquisition mechanisms and contribute additively to zinc homeostasis in <scp>S</scp>treptococcus pneumoniae. Molecular Microbiology, 2014, 91, 834-851.	1.2	108
12	The Metallophore Staphylopine Enables Staphylococcus aureus To Compete with the Host for Zinc and Overcome Nutritional Immunity. MBio, 2017, 8, .	1.8	106
13	Central Role of Manganese in Regulation of Stress Responses, Physiology, and Metabolism in Streptococcus pneumoniae. Journal of Bacteriology, 2010, 192, 4489-4497.	1.0	95
14	Conformational and dynamic plasticity in substrate-binding proteins underlies selective transport in ABC importers. ELife, 2019, 8, .	2.8	93
15	The role of ATP-binding cassette transporters in bacterial pathogenicity. Protoplasma, 2012, 249, 919-942.	1.0	87
16	An optimized SEC-SAXS system enabling high X-ray dose for rapid SAXS assessment with correlated UV measurements for biomolecular structure analysis. Journal of Applied Crystallography, 2018, 51, 97-111.	1.9	61
17	Manganese uptake and streptococcal virulence. BioMetals, 2015, 28, 491-508.	1.8	59
18	Selenium mediates exercise-induced adult neurogenesis and reverses learning deficits induced by hippocampal injury and aging. Cell Metabolism, 2022, 34, 408-423.e8.	7.2	58

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19	Chemical Synergy between Ionophore PBT2 and Zinc Reverses Antibiotic Resistance. MBio, 2018, 9, .	1.8	56
20	Zinc stress induces copper depletion in Acinetobacter baumannii. BMC Microbiology, 2017, 17, 59.	1.3	55
21	Antimicrobial Susceptibility of Escherichia coli and Salmonella spp. Isolates From Healthy Pigs in Australia: Results of a Pilot National Survey. Frontiers in Microbiology, 2018, 9, 1207.	1.5	52
22	Autoinducer 2 Signaling via the Phosphotransferase FruA Drives Galactose Utilization by Streptococcus pneumoniae , Resulting in Hypervirulence. MBio, 2017, 8, .	1.8	50
23	Dietary zinc and the control of Streptococcus pneumoniae infection. PLoS Pathogens, 2019, 15, e1007957.	2.1	49
24	Characterization of the Redox Centers in Dimethyl Sulfide Dehydrogenase fromRhodovulum sulfidophilumâ€. Biochemistry, 2002, 41, 15234-15244.	1.2	48
25	Subunit composition and inâ€ƒvivo substrate-binding characteristics of Escherichiaâ€ƒcoli Tat protein complexes expressed at native levels. FEBS Journal, 2006, 273, 5656-5668.	2.2	48
26	Generating Inhibitors of P-Glycoprotein: Where to, Now?. Methods in Molecular Biology, 2010, 596, 405-432.	0.4	45
27	Is ATP binding responsible for initiating drug translocation by the multidrug transporter ABCG2?. FEBS Journal, 2008, 275, 4354-4362.	2.2	44
28	Acquisition and Role of Molybdate in Pseudomonas aeruginosa. Applied and Environmental Microbiology, 2014, 80, 6843-6852.	1.4	43
29	Identification of Novel Acinetobacter baumannii Host Fatty Acid Stress Adaptation Strategies. MBio, 2019, 10, .	1.8	43
30	Overlapping Functionality of the Pht Proteins in Zinc Homeostasis of Streptococcus pneumoniae. Infection and Immunity, 2014, 82, 4315-4324.	1.0	42
31	Arachidonic Acid Stress Impacts Pneumococcal Fatty Acid Homeostasis. Frontiers in Microbiology, 2018, 9, 813.	1.5	42
32	The zinc efflux activator <scp>S</scp>cz<scp>A</scp> protects <scp>S</scp>treptococcus pneumoniae serotype 2 <scp>D</scp>39 from intracellular zinc toxicity. Molecular Microbiology, 2017, 104, 636-651.	1.2	40
33	The First Histidine Triad Motif of PhtD Is Critical for Zinc Homeostasis in Streptococcus pneumoniae. Infection and Immunity, 2016, 84, 407-415.	1.0	38
34	Zinc-binding to the cytoplasmic PAS domain regulates the essential WalK histidine kinase of Staphylococcus aureus. Nature Communications, 2019, 10, 3067.	5.8	38
35	Degrees of chloroquine resistance in Plasmodium â€“ Is the redox system involved?. International Journal for Parasitology: Drugs and Drug Resistance, 2012, 2, 47-57.	1.4	37
36	Repurposing a neurodegenerative disease drug to treat Gram-negative antibiotic-resistant bacterial sepsis. Science Translational Medicine, 2020, 12, .	5.8	36

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37	Prokaryotic Substrate-Binding Proteins as Targets for Antimicrobial Therapies. Current Drug Targets, 2012, 13, 1400-1410.	1.0	35
38	The central cavity of <scp>ABCB</scp>1 undergoes alternating access during <scp>ATP</scp> hydrolysis. FEBS Journal, 2014, 281, 2190-2201.	2.2	35
39	The Role of the CopA Copper Efflux System in Acinetobacter baumannii Virulence. International Journal of Molecular Sciences, 2019, 20, 575.	1.8	35
40	Synergy between Nutritional Immunity and Independent Host Defenses Contributes to the Importance of the MntABC Manganese Transporter during Staphylococcus aureus Infection. Infection and Immunity, 2019, 87, .	1.0	34
41	Characterisation of Tat protein transport complexes carrying inactivating mutations. Biochemical and Biophysical Research Communications, 2005, 329, 693-698.	1.0	33
42	Microstructured Optical Fiber-based Biosensors: Reversible and Nanoliter-Scale Measurement of Zinc Ions. ACS Applied Materials & Interfaces, 2016, 8, 12727-12732.	4.0	32
43	Selective ferroptosis vulnerability due to familial Alzheimerâ€™s disease presenilin mutations. Cell Death and Differentiation, 2022, 29, 2123-2136.	5.0	32
44	Microstructured Optical Fibers and Live Cells: A Water-Soluble, Photochromic Zinc Sensor. Biomacromolecules, 2013, 14, 3376-3379.	2.6	30
45	Purification and structural analyses of ABCG2. Advanced Drug Delivery Reviews, 2009, 61, 57-65.	6.6	29
46	Improving the stability and function of purified ABCB1 and ABCA4: The influence of membrane lipids. Biochimica Et Biophysica Acta - Biomembranes, 2014, 1838, 134-147.	1.4	28
47	Genome-Wide Mutagenesis of Dengue Virus Reveals Plasticity of the NS1 Protein and Enables Generation of Infectious Tagged Reporter Viruses. Journal of Virology, 2017, 91, .	1.5	24
48	Multiple Bactericidal Mechanisms of the Zinc Ionophore PBT2. MSphere, 2020, 5, .	1.3	24
49	The Role of Zinc Efflux during Acinetobacter baumannii Infection. ACS Infectious Diseases, 2020, 6, 150-158.	1.8	21
50	Aerobic nitrate respiration in a nitrite-oxidising bioreactor. FEMS Microbiology Letters, 2000, 184, 113-118.	0.7	20
51	Structural insights into Pâ€glycoprotein (ABCB1) by small angle Xâ€ray scattering and electron crystallography. FEBS Letters, 2008, 582, 2950-2956.	1.3	19
52	Discovery of Novel Pneumococcal Surface Antigen A (PsaA) Inhibitors Using a Fragment-based Drug Design Approach. ACS Chemical Biology, 2015, 10, 1511-1520.	1.6	19
53	Cadmium stress dictates central carbon flux and alters membrane composition in Streptococcus pneumoniae. Communications Biology, 2020, 3, 694.	2.0	19
54	Experimental Evolution In Vivo To Identify Selective Pressures during Pneumococcal Colonization. MSystems, 2020, 5, .	1.7	18

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55	Intracellular Accumulation of Staphylopine Can Sensitize Staphylococcus aureus to Host-Imposed Zinc Starvation by Chelation-Independent Toxicity. Journal of Bacteriology, 2020, 202, .	1.0	18
56	Dysregulation of Streptococcus pneumoniae zinc homeostasis breaks ampicillin resistance in a pneumonia infection model. Cell Reports, 2022, 38, 110202.	2.9	18
57	The structural basis of bacterial manganese import. Science Advances, 2021, 7, .	4.7	17
58	Host-imposed manganese starvation of invading pathogens: two routes to the same destination. BioMetals, 2015, 28, 509-519.	1.8	16
59	Comparing Nonbonded Metal Ion Models in the Divalent Cation Binding Protein PsaA. Journal of Chemical Theory and Computation, 2020, 16, 1913-1923.	2.3	15
60	Defining the Role of the Streptococcus agalactiae Sht-Family Proteins in Zinc Acquisition and Complement Evasion. Journal of Bacteriology, 2019, 201, .	1.0	14
61	Exploring the Use of Structure and Polymer Incorporation to Tune Silver Ion Release and Antibacterial Activity of Silver Coordination Polymers. European Journal of Inorganic Chemistry, 2018, 2018, 3512-3518.	1.0	13
62	Structural and functional characterizations of the C-terminal domains of CzcD proteins. Journal of Inorganic Biochemistry, 2020, 208, 111087.	1.5	12
63	The Role of ZntA in Klebsiella pneumoniae Zinc Homeostasis. Microbiology Spectrum, 2022, 10, e0177321.	1.2	12
64	MntP and YiiP Contribute to Manganese Efflux in Salmonella enterica Serovar Typhimurium under Conditions of Manganese Overload and Nitrosative Stress. Microbiology Spectrum, 2022, 10, e0131621.	1.2	12
65	Structure and Metal Binding Properties of Chlamydia trachomatis YtgA. Journal of Bacteriology, 2019, 202, .	1.0	11
66	Manganese import protectsSalmonella entericaserovar Typhimurium against nitrosative stress. Metallomics, 2020, 12, 1791-1801.	1.0	11
67	The biochemical fate of Ag+ ions in Staphylococcus aureus, Escherichia coli, and biological media. Journal of Inorganic Biochemistry, 2021, 225, 111598.	1.5	11
68	Rescuing Tetracycline Class Antibiotics for the Treatment of Multidrug-Resistant Acinetobacter baumannii Pulmonary Infection. MBio, 2022, 13, e0351721.	1.8	11
69	The Molecular Basis of Acinetobacter baumannii Cadmium Toxicity and Resistance. Applied and Environmental Microbiology, 2021, 87, e0171821.	1.4	9
70	Characterizing the conformational dynamics of metal-free PsaA using molecular dynamics simulations and electron paramagnetic resonance spectroscopy. Biophysical Chemistry, 2015, 207, 51-60.	1.5	8
71	The structure and activity of the glutathione reductase fromStreptococcus pneumoniae. Acta Crystallographica Section F, Structural Biology Communications, 2019, 75, 54-61.	0.4	8
72	A Trap-Door Mechanism for Zinc Acquisition by Streptococcus pneumoniae AdcA. MBio, 2021, 12, .	1.8	8

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73	Conformation of the Solute-Binding Protein AdcAII Influences Zinc Uptake in Streptococcus pneumoniae. Frontiers in Cellular and Infection Microbiology, 2021, 11, 729981.	1.8	7
74	Absence of high priority critically important antimicrobial resistance in Salmonella sp. isolated from Australian commercial egg layer environments. International Journal of Food Microbiology, 2021, 340, 109042.	2.1	6
75	Biotin-mediated growth and gene expression in Staphylococcus aureus is highly responsive to environmental biotin. Applied Microbiology and Biotechnology, 2018, 102, 3793-3803.	1.7	5
76	Heterogeneous nucleation is required for crystallization of the ZnuA domain of pneumococcal AdcA. Acta Crystallographica Section F, Structural Biology Communications, 2015, 71, 1459-1464.	0.4	5
77	A Liposomal Platform for Sensing of Extracellular Analytes Near Cells. Biosensors, 2018, 8, 117.	2.3	4
78	Structural characterisation of the HT3 motif of the polyhistidine triad protein D from Streptococcus pneumoniae. FEBS Letters, 2018, 592, 2341-2350.	1.3	4
79	Crâ€“Ag coatings: synthesis, microstructure and antimicrobial properties. Surface Engineering, 2019, 35, 596-603.	1.1	4
80	Disruption of Phosphate Homeostasis Sensitizes Staphylococcus aureus to Nutritional Immunity. Infection and Immunity, 2020, 88, .	1.0	4
81	The Impact of Chromate on Pseudomonas aeruginosa Molybdenum Homeostasis. Frontiers in Microbiology, 2022, 13, .	1.5	4
82	Neurodegenerative Disease Treatment Drug PBT2 Breaks Intrinsic Polymyxin Resistance in Gram-Positive Bacteria. Antibiotics, 2022, 11, 449.	1.5	3
83	Structural and biochemical characterization of Acinetobacter baumannii ZnuA. Journal of Inorganic Biochemistry, 2022, 231, 111787.	1.5	3
84	Discovery of novel Pneumococcal surface adhesin A (PsaA) inhibitors using fragmentâ€based drug design. FASEB Journal, 2015, 29, LB477.	0.2	0
85	Functional analysis of the zinc efflux protein CzcD. Acta Crystallographica Section A: Foundations and Advances, 2017, 73, C396-C396.	0.0	0
86	The structure of the ABC transporter PsaBC shows that bacterial manganese import is achieved by unique architectural features that are conserved across the kingdoms of life. Acta Crystallographica Section A: Foundations and Advances, 2021, 77, C100-C100.	0.0	0