Karla J F Satchell

List of Publications by Year
in descending order

81	2,909	159585	189892
papers	citations	30 h-index	50 g-index

101	101	101	3633
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Soluble angiotensin-converting enzyme 2: a potential approach for coronavirus infection therapy?. Clinical Science, 2020, 134, 543-545.	4.3	369
2	The Vibrio cholerae Flagellar Regulatory Hierarchy Controls Expression of Virulence Factors. Journal of Bacteriology, 2009, 191, 6555-6570.	2.2	186
3	Structure and Function of MARTX Toxins and Other Large Repetitive RTX Proteins. Annual Review of Microbiology, 2011, 65, 71-90.	7.3	148
4	High-resolution structures of the SARS-CoV-2 2â€²- O -methyltransferase reveal strategies for structure-based inhibitor design. Science Signaling, 2020, 13, .	3.6	143
5	Additive Function of Vibrio vulnificus MARTXVv and VvhA Cytolysins Promotes Rapid Growth and Epithelial Tissue Necrosis During Intestinal Infection. PLoS Pathogens, 2012, 8, e1002581.	4.7	121
6	Multifunctional-autoprocessing repeats-in-toxin (MARTX) Toxins of Vibrios. Microbiology Spectrum, 2015, 3, .	3.0	100
7	Vibrio vulnificus rtxA1 gene recombination generates toxin variants with altered potency during intestinal infection. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 1645-1650.	7.1	90
8	Identification of a conserved membrane localization domain within numerous large bacterial protein toxins. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 5581-5586.	7.1	76
9	Structural and Molecular Mechanism for Autoprocessing of MARTX Toxin of Vibrio cholerae at Multiple Sites. Journal of Biological Chemistry, 2009, 284, 26557-26568.	3.4	75
10	Successful Small Intestine Colonization of Adult Mice by Vibrio cholerae Requires Ketamine Anesthesia and Accessory Toxins. PLoS ONE, 2009, 4, e7352.	2.5	74
11	Inositol Hexakisphosphate-Induced Autoprocessing of Large Bacterial Protein Toxins. PLoS Pathogens, 2010, 6, e1000942.	4.7	68
12	Site-specific processing of Ras and Rap1 Switch I by a MARTX toxin effector domain. Nature Communications, 2015, 6, 7396.	12.8	64
13	Probing the SAM Binding Site of SARS-CoV-2 Nsp14 In Vitro Using SAM Competitive Inhibitors Guides Developing Selective Bisubstrate Inhibitors. SLAS Discovery, 2021, 26, 1200-1211.	2.7	55
14	Vibrio vulnificus Biotype 3 Multifunctional Autoprocessing RTX Toxin Is an Adenylate Cyclase Toxin Essential for Virulence in Mice. Infection and Immunity, 2014, 82, 2148-2157.	2.2	51
15	Distinct Roles of the Repeat-Containing Regions and Effector Domains of the Vibrio vulnificus Multifunctional-Autoprocessing Repeats-in-Toxin (MARTX) Toxin. MBio, 2015, 6, .	4.1	48
16	Phenotypic Analysis Reveals that the 2010 Haiti Cholera Epidemic Is Linked to a Hypervirulent Strain. Infection and Immunity, 2016, 84, 2473-2481.	2.2	48
17	Phage-assisted evolution of botulinum neurotoxin proteases with reprogrammed specificity. Science, 2021, 371, 803-810.	12.6	46
18	2â€²-O methylation of RNA cap in SARS-CoV-2 captured by serial crystallography. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	46

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19	<scp>V</scp>ibrio choleraeâ€...<scp>MARTX</scp> toxin heterologous translocation of betaâ€lactamase and roles of individual effector domains on cytoskeleton dynamics. Molecular Microbiology, 2015, 95, 590-604.	2.5	44
20	Vibrio vulnificus: From Oyster Colonist to Human Pathogen. PLoS Pathogens, 2017, 13, e1006053.	4.7	44
21	Plasma membrane association of three classes of bacterial toxins is mediated by a basic-hydrophobic motif. Cellular Microbiology, 2012, 14, 286-298.	2.1	43
22	Analysis of Vibrio cholerae Genome Sequences Reveals Unique rtxA Variants in Environmental Strains and an rtxA -Null Mutation in Recent Altered El Tor Isolates. MBio, 2013, 4, e00624.	4.1	43
23	New ligation independent cloning vectors for expression of recombinant proteins with a self-cleaving CPD/6xHis-tag. BMC Biotechnology, 2017, 17, 1.	3.3	42
24	Desmoplakin maintains gap junctions by inhibiting Ras/MAPK and lysosomal degradation of connexin-43. Journal of Cell Biology, 2018, 217, 3219-3235.	5.2	41
25	Autophagy and endosomal trafficking inhibition by Vibrio cholerae MARTX toxin phosphatidylinositol-3-phosphate-specific phospholipase A1 activity. Nature Communications, 2015, 6, 8745.	12.8	40
26	The bacterial Ras/Rap1 site-specific endopeptidase RRSP cleaves Ras through an atypical mechanism to disrupt Ras-ERK signaling. Science Signaling, 2018, 11, .	3.6	39
27	A comparative genomics approach identifies contact-dependent growth inhibition as a virulence determinant. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6811-6821.	7.1	39
28	Cytotoxicity of the V ibrio vulnificus MARTX toxin Effector DUF5 is linked to the C2A Subdomain. Proteins: Structure, Function and Bioinformatics, 2014, 82, 2643-2656.	2.6	37
29	MARTX toxins as effector delivery platforms. Pathogens and Disease, 2015, 73, ftv092.	2.0	37
30	The Effector Domain Region of the Vibrio vulnificus MARTX Toxin Confers Biphasic Epithelial Barrier Disruption and Is Essential for Systemic Spread from the Intestine. PLoS Pathogens, 2017, 13, e1006119.	4.7	36
31	Lysine 68 acetylation directs MnSOD as a tetrameric detoxification complex versus a monomeric tumor promoter. Nature Communications, 2019, 10, 2399.	12.8	33
32	Identification of a His-Asp-Cys Catalytic Triad Essential for Function of the Rho Inactivation Domain (RID) of Vibrio cholerae MARTX Toxin. Journal of Biological Chemistry, 2013, 288, 1397-1408.	3.4	31
33	Large Scale Structural Rearrangement of a Serine Hydrolase from Francisella tularensis Facilitates Catalysis. Journal of Biological Chemistry, 2013, 288, 10522-10535.	3.4	28
34	An engineered chimeric toxin that cleaves activated mutant and wild-type RAS inhibits tumor growth. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16938-16948.	7.1	26
35	The Vibrio cholerae MARTX toxin silences the inflammatory response to cytoskeletal damage before inducing actin cytoskeleton collapse. Science Signaling, 2020, 13, .	3.6	25
36	The Cyclic AMP Receptor Protein Regulates Quorum Sensing and Global Gene Expression in Yersinia pestis during Planktonic Growth and Growth in Biofilms. MBio, 2019, 10, .	4.1	24

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37	Genetic determination of essential residues of the Vibrio cholerae actin crossâ€linking domain reveals functional similarity with glutamine synthetases. Molecular Microbiology, 2009, 73, 858-868.	2.5	23
38	Efficacy of Ceftriaxone, Cefepime, Doxycycline, Ciprofloxacin, and Combination Therapy for Vibrio vulnificus Foodborne Septicemia. Antimicrobial Agents and Chemotherapy, 2017, 61, .	3.2	23
39	Actin Crosslinking Toxins of Gram-Negative Bacteria. Toxins, 2009, 1, 123-133.	3.4	22
40	Induced autoprocessing of the cytopathic Makes caterpillars floppy-like effector domain of theVibrio vulnificusâ€…MARTX toxin. Cellular Microbiology, 2015, 17, 1494-1509.	2.1	22
41	Substrate Recognition of MARTX Ras/Rap1-Specific Endopeptidase. Biochemistry, 2017, 56, 2747-2757.	2.5	22
42	Coordinated delivery and function of bacterial MARTX toxin effectors. Molecular Microbiology, 2018, 107, 133-141.	2.5	20
43	Surface hypothermia predicts murine mortality in the intragastric Vibrio vulnificus infection model. BMC Microbiology, 2017, 17, 136.	3.3	19
44	The Makes Caterpillars Floppy (MCF)-Like Domain of Vibrio vulnificus Induces Mitochondrion-Mediated Apoptosis. Infection and Immunity, 2015, 83, 4392-4403.	2.2	17
45	Mn ²⁺ coordinates Cap-0-RNA to align substrates for efficient 2â€²- O -methyl transfer by SARS-CoV-2 nsp16. Science Signaling, 2021, 14, .	3.6	17
46	MARTX effector cross kingdom activation by Golgi-associated ADP-ribosylation factors. Cellular Microbiology, 2016, 18, 1078-1093.	2.1	16
47	Mechanisms of Inflammasome Activation by Vibrio cholerae Secreted Toxins Vary with Strain Biotype. Infection and Immunity, 2015, 83, 2496-2506.	2.2	15
48	Variable Virulence of Biotype 3 Vibrio vulnificus due to MARTX Toxin Effector Domain Composition. MSphere, 2017, 2, .	2.9	15
49	RRSP and RID Effector Domains Dominate the Virulence Impact ofVibrio vulnificusMARTX Toxin. Journal of Infectious Diseases, 2019, 219, 889-897.	4.0	15
50	Anthrax Protective Antigen Retargeted with Singleâ€Chain Variable Fragments Delivers Enzymes to Pancreatic Cancer Cells. ChemBioChem, 2020, 21, 2772-2776.	2.6	14
51	Promotion of Colonization and Virulence by Cholera Toxin Is Dependent on Neutrophils. Infection and Immunity, 2013, 81, 3338-3345.	2.2	13
52	Nâ€terminal autoprocessing and acetylation of multifunctionalâ€autoprocessing repeatsâ€inâ€toxins (MARTX) Makes Caterpillars Floppyâ€like effector is stimulated by adenosine diphosphate (ADP)â€Ribosylation Factor 1 in advance of Golgi fragmentation. Cellular Microbiology, 2020, 22, e13133.	2.1	9
53	Bacterial Martyrdom: Phagocytes Disabled by Type VI Secretion after Engulfing Bacteria. Cell Host and Microbe, 2009, 5, 213-214.	11.0	8
54	Assessment of Virological Contributions to COVID-19 Outcomes in a Longitudinal Cohort of Hospitalized Adults. Open Forum Infectious Diseases, 2022, 9, ofac027.	0.9	8

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55	Vibrio2017: the Seventh International Conference on the Biology of Vibrios. Journal of Bacteriology, 2018, 200, e00304-18.	2.2	6
56	RAS specific protease induces irreversible growth arrest via p27 in several KRAS mutant colorectal cancer cell lines. Scientific Reports, 2021, 11, 17925.	3.3	6
57	Draft Genome Sequence of Israeli Outbreak-Associated Vibrio vulnificus Biotype 3 Clinical Isolate BAA87. Genome Announcements, 2014, 2, .	0.8	5
58	â€œFrom Protein Toxins to Applied Toxicological Testingâ€•virtual workshop identifies the need for a bioinformatic framework to assess novel food protein safety. Regulatory Toxicology and Pharmacology, 2022, 131, 105146.	2.7	5
59	Backbone and side-chain assignments of an effector membrane localization domain from Vibrio vulnificus MARTX toxin. Biomolecular NMR Assignments, 2014, 8, 225-228.	0.8	4
60	Backbone and side-chain resonance assignments of the membrane localization domain from Pasteurella multocida toxin. Biomolecular NMR Assignments, 2014, 8, 221-224.	0.8	4
61	Engineered Bacteria for Cholera Prophylaxis. Cell Host and Microbe, 2018, 24, 192-194.	11.0	4
62	Structure of galactarate dehydratase, a new fold in an enolase involved in bacterial fitness after antibiotic treatment. Protein Science, 2020, 29, 711-722.	7.6	4
63	Sensor Domain of Histidine Kinase VxrA of Vibrio cholerae: Hairpin-Swapped Dimer and Its Conformational Change. Journal of Bacteriology, 2021, 203, .	2.2	4
64	A bacterial toxin that cleaves Ras oncoprotein. Oncotarget, 2015, 6, 18742-18743.	1.8	4
65	Draft Genome Sequences of Two Vibrio parahaemolyticus Strains Associated with Gastroenteritis after Raw Seafood Ingestion in Colorado. Genome Announcements, 2018, 6, .	0.8	3
66	Cross-Kingdom Activation of Vibrio Toxins by ADP-Ribosylation Factor Family GTPases. Journal of Bacteriology, 2020, 202, .	2.2	3
67	Cellular microbiology: Bacterial toxin interference drives understanding of eukaryotic cell function. Cellular Microbiology, 2020, 22, e13178.	2.1	3
68	Comparison of metalâ€bound and unbound structures of aminopeptidase B proteins from <scp>Escherichia coli</scp> and <scp>Yersinia pestis</scp>. Protein Science, 2020, 29, 1618-1628.	7.6	3
69	The ChiS-Family DNA-Binding Domain Contains a Cryptic Helix-Turn-Helix Variant. MBio, 2021, 12, .	4.1	3
70	Structural comparison of p-hydroxybenzoate hydroxylase (PobA) from Pseudomonas putida with PobA from other Pseudomonas spp. and other monooxygenases. Acta Crystallographica Section F, Structural Biology Communications, 2019, 75, 507-514.	0.8	3
71	A Genomic Island of Vibrio cholerae Encodes a Three-Component Cytotoxin with Monomer and Protomer Forms Structurally Similar to Alpha-Pore-Forming Toxins. Journal of Bacteriology, 2022, 204, e0055521.	2.2	3
72	Proteolytic pan-RAS Cleavage Leads to Tumor Regression in Patient-derived Pancreatic Cancer Xenografts. Molecular Cancer Therapeutics, 2022, 21, 810-820.	4.1	2

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73	Draft Genome Sequences of Four Closely Linked Vibrio vulnificus Isolates from the Biotype 1 Environmental Genotype. Genome Announcements, 2015, 3, .	0.8	1
74	Bacterial Toxin and Effector Regulation of Intestinal Immune Signaling. Frontiers in Cell and Developmental Biology, 2022, 10, 837691.	3.7	1
75	Actin Cross-Linking Effector Domain of the Vibrio vulnificus F-Type MARTX Toxin Dominates Disease Progression During Intestinal Infection. Infection and Immunity, 2022, , e0062721.	2.2	1
76	In Vitro Synergism Against Vibrio vulnificus With the Addition of Doxycycline or Ciprofloxacin to Cefepime. Open Forum Infectious Diseases, 2016, 3, .	0.9	0
77	Direct Cloning Method for Expression of Recombinant Proteins with an Inositol Hexakisphosphate Inducible Self-Cleaving Tag. Methods in Molecular Biology, 2020, 2091, 163-179.	0.9	0
78	Delivering a RAS protease halts tumor growth. Oncotarget, 2020, 11, 3265-3266.	1.8	0
79	1237. Characterization and crystallization of OXA-935, a novel class D OXA-10-like beta-lactamase, found in Pseudomonas aeruginosa. Open Forum Infectious Diseases, 2021, 8, S708-S708.	0.9	0
80	The MCF Toxin of the Extracellular Pathogen Vibrio vulnificus is Activated by and Targets Host GTPases. FASEB Journal, 2022, 36, .	0.5	0
81	Structural studies reveal unique features of nsp16 from SARSâ€CoVâ€2, a protein essential for immune system evasion and a possible drug target. FASEB Journal, 2022, 36, .	0.5	0