

Karla J F Satchell

List of Publications by Year in descending order

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Version: 2024-02-01

81
papers

2,909
citations

159358

30
h-index

189595

50
g-index

101
all docs

101
docs citations

101
times ranked

3633
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 1 | Bacterial Toxin and Effector Regulation of Intestinal Immune Signaling. <i>Frontiers in Cell and Developmental Biology</i> , 2022, 10, 837691. | 1.8 | 1 |
| 2 | Assessment of Virological Contributions to COVID-19 Outcomes in a Longitudinal Cohort of Hospitalized Adults. <i>Open Forum Infectious Diseases</i> , 2022, 9, ofac027. | 0.4 | 8 |
| 3 | Actin Cross-Linking Effector Domain of the <i>Vibrio vulnificus</i> F-Type MARTX Toxin Dominates Disease Progression During Intestinal Infection. <i>Infection and Immunity</i> , 2022, , e0062721. | 1.0 | 1 |
| 4 | From Protein Toxins to Applied Toxicological Testing: virtual workshop identifies the need for a bioinformatic framework to assess novel food protein safety. <i>Regulatory Toxicology and Pharmacology</i> , 2022, 131, 105146. | 1.3 | 5 |
| 5 | A Genomic Island of <i>Vibrio cholerae</i> Encodes a Three-Component Cytotoxin with Monomer and Protomer Forms Structurally Similar to Alpha-Pore-Forming Toxins. <i>Journal of Bacteriology</i> , 2022, 204, e0055521. | 1.0 | 3 |
| 6 | Proteolytic pan-RAS Cleavage Leads to Tumor Regression in Patient-derived Pancreatic Cancer Xenografts. <i>Molecular Cancer Therapeutics</i> , 2022, 21, 810-820. | 1.9 | 2 |
| 7 | The MCF Toxin of the Extracellular Pathogen <i>Vibrio vulnificus</i> is Activated by and Targets Host GTPases. <i>FASEB Journal</i> , 2022, 36, . | 0.2 | 0 |
| 8 | Structural studies reveal unique features of nsp16 from SARS-CoV-2, a protein essential for immune system evasion and a possible drug target. <i>FASEB Journal</i> , 2022, 36, . | 0.2 | 0 |
| 9 | Phage-assisted evolution of botulinum neurotoxin proteases with reprogrammed specificity. <i>Science</i> , 2021, 371, 803-810. | 6.0 | 46 |
| 10 | The ChiS-Family DNA-Binding Domain Contains a Cryptic Helix-Turn-Helix Variant. <i>MBio</i> , 2021, 12, . | 1.8 | 3 |
| 11 | Sensor Domain of Histidine Kinase VxA of <i>Vibrio cholerae</i> : Hairpin-Swapped Dimer and Its Conformational Change. <i>Journal of Bacteriology</i> , 2021, 203, . | 1.0 | 4 |
| 12 | 2'-O methylation of RNA cap in SARS-CoV-2 captured by serial crystallography. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, . | 3.3 | 46 |
| 13 | Mn ²⁺ coordinates Cap-0-RNA to align substrates for efficient 2'-O-methyl transfer by SARS-CoV-2 nsp16. <i>Science Signaling</i> , 2021, 14, . | 1.6 | 17 |
| 14 | Probing the SAM Binding Site of SARS-CoV-2 Nsp14 In Vitro Using SAM Competitive Inhibitors Guides Developing Selective Bisubstrate Inhibitors. <i>SLAS Discovery</i> , 2021, 26, 1200-1211. | 1.4 | 55 |
| 15 | RAS specific protease induces irreversible growth arrest via p27 in several KRAS mutant colorectal cancer cell lines. <i>Scientific Reports</i> , 2021, 11, 17925. | 1.6 | 6 |
| 16 | 1237. Characterization and crystallization of OXA-935, a novel class D OXA-10-like beta-lactamase, found in <i>Pseudomonas aeruginosa</i> . <i>Open Forum Infectious Diseases</i> , 2021, 8, S708-S708. | 0.4 | 0 |
| 17 | N-terminal autoprocessing and acetylation of multifunctional autoprocessing repeats toxins (MARTX) Makes Caterpillars Floppy-like effector is stimulated by adenosine diphosphate (ADP) Ribosylation Factor 1 in advance of Golgi fragmentation. <i>Cellular Microbiology</i> , 2020, 22, e13133. | 1.1 | 9 |
| 18 | Structure of galactarate dehydratase, a new fold in an enolase involved in bacterial fitness after antibiotic treatment. <i>Protein Science</i> , 2020, 29, 711-722. | 3.1 | 4 |

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|----|---|-----|-----------|
| 19 | Direct Cloning Method for Expression of Recombinant Proteins with an Inositol Hexakisphosphate Inducible Self-Cleaving Tag. <i>Methods in Molecular Biology</i> , 2020, 2091, 163-179. | 0.4 | 0 |
| 20 | High-resolution structures of the SARS-CoV-2 2â€²- <i>O</i> -methyltransferase reveal strategies for structure-based inhibitor design. <i>Science Signaling</i> , 2020, 13, . | 1.6 | 143 |
| 21 | Cross-Kingdom Activation of <i>Vibrio</i> Toxins by ADP-Ribosylation Factor Family GTPases. <i>Journal of Bacteriology</i> , 2020, 202, . | 1.0 | 3 |
| 22 | Anthrax Protective Antigen Retargeted with Singleâ€²Chain Variable Fragments Delivers Enzymes to Pancreatic Cancer Cells. <i>ChemBioChem</i> , 2020, 21, 2772-2776. | 1.3 | 14 |
| 23 | Cellular microbiology: Bacterial toxin interference drives understanding of eukaryotic cell function. <i>Cellular Microbiology</i> , 2020, 22, e13178. | 1.1 | 3 |
| 24 | A comparative genomics approach identifies contact-dependent growth inhibition as a virulence determinant. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 6811-6821. | 3.3 | 39 |
| 25 | An engineered chimeric toxin that cleaves activated mutant and wild-type RAS inhibits tumor growth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 16938-16948. | 3.3 | 26 |
| 26 | The <i>Vibrio cholerae</i> MARTX toxin silences the inflammatory response to cytoskeletal damage before inducing actin cytoskeleton collapse. <i>Science Signaling</i> , 2020, 13, . | 1.6 | 25 |
| 27 | Comparison of metalâ€²bound and unbound structures of aminopeptidase B proteins from <i>Escherichia coli</i> and <i>Yersinia pestis</i> . <i>Protein Science</i> , 2020, 29, 1618-1628. | 3.1 | 3 |
| 28 | Soluble angiotensin-converting enzyme 2: a potential approach for coronavirus infection therapy?. <i>Clinical Science</i> , 2020, 134, 543-545. | 1.8 | 369 |
| 29 | Delivering a RAS protease halts tumor growth. <i>Oncotarget</i> , 2020, 11, 3265-3266. | 0.8 | 0 |
| 30 | Lysine 68 acetylation directs MnSOD as a tetrameric detoxification complex versus a monomeric tumor promoter. <i>Nature Communications</i> , 2019, 10, 2399. | 5.8 | 33 |
| 31 | The Cyclic AMP Receptor Protein Regulates Quorum Sensing and Global Gene Expression in <i>Yersinia pestis</i> during Planktonic Growth and Growth in Biofilms. <i>MBio</i> , 2019, 10, . | 1.8 | 24 |
| 32 | RRSP and RID Effector Domains Dominate the Virulence Impact of <i>Vibrio vulnificus</i> MARTX Toxin. <i>Journal of Infectious Diseases</i> , 2019, 219, 889-897. | 1.9 | 15 |
| 33 | Structural comparison of <i>p</i> -hydroxybenzoate hydroxylase (PobA) from <i>Pseudomonas putida</i> with PobA from other <i>Pseudomonas</i> spp. and other monooxygenases. <i>Acta Crystallographica Section F, Structural Biology Communications</i> , 2019, 75, 507-514. | 0.4 | 3 |
| 34 | Draft Genome Sequences of Two <i>Vibrio parahaemolyticus</i> Strains Associated with Gastroenteritis after Raw Seafood Ingestion in Colorado. <i>Genome Announcements</i> , 2018, 6, . | 0.8 | 3 |
| 35 | Coordinated delivery and function of bacterial MARTX toxin effectors. <i>Molecular Microbiology</i> , 2018, 107, 133-141. | 1.2 | 20 |
| 36 | The bacterial Ras/Rap1 site-specific endopeptidase RRSP cleaves Ras through an atypical mechanism to disrupt Ras-ERK signaling. <i>Science Signaling</i> , 2018, 11, . | 1.6 | 39 |

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|----|--|-----|-----------|
| 37 | Desmoplakin maintains gap junctions by inhibiting Ras/MAPK and lysosomal degradation of connexin-43. <i>Journal of Cell Biology</i> , 2018, 217, 3219-3235. | 2.3 | 41 |
| 38 | Engineered Bacteria for Cholera Prophylaxis. <i>Cell Host and Microbe</i> , 2018, 24, 192-194. | 5.1 | 4 |
| 39 | Vibrio2017: the Seventh International Conference on the Biology of Vibrios. <i>Journal of Bacteriology</i> , 2018, 200, e00304-18. | 1.0 | 6 |
| 40 | Substrate Recognition of MARTX Ras/Rap1-Specific Endopeptidase. <i>Biochemistry</i> , 2017, 56, 2747-2757. | 1.2 | 22 |
| 41 | Efficacy of Ceftriaxone, Cefepime, Doxycycline, Ciprofloxacin, and Combination Therapy for <i>Vibrio vulnificus</i> Foodborne Septicemia. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, . | 1.4 | 23 |
| 42 | Variable Virulence of Biotype 3 <i>Vibrio vulnificus</i> due to MARTX Toxin Effector Domain Composition. <i>MSphere</i> , 2017, 2, . | 1.3 | 15 |
| 43 | Surface hypothermia predicts murine mortality in the intragastric <i>Vibrio vulnificus</i> infection model. <i>BMC Microbiology</i> , 2017, 17, 136. | 1.3 | 19 |
| 44 | The Effector Domain Region of the <i>Vibrio vulnificus</i> MARTX Toxin Confers Biphasic Epithelial Barrier Disruption and Is Essential for Systemic Spread from the Intestine. <i>PLoS Pathogens</i> , 2017, 13, e1006119. | 2.1 | 36 |
| 45 | New ligation independent cloning vectors for expression of recombinant proteins with a self-cleaving CPD/6xHis-tag. <i>BMC Biotechnology</i> , 2017, 17, 1. | 1.7 | 42 |
| 46 | <i>Vibrio vulnificus</i> : From Oyster Colonist to Human Pathogen. <i>PLoS Pathogens</i> , 2017, 13, e1006053. | 2.1 | 44 |
| 47 | In Vitro Synergism Against <i>Vibrio vulnificus</i> With the Addition of Doxycycline or Ciprofloxacin to Cefepime. <i>Open Forum Infectious Diseases</i> , 2016, 3, . | 0.4 | 0 |
| 48 | MARTX effector cross kingdom activation by Golgi-associated ADP-ribosylation factors. <i>Cellular Microbiology</i> , 2016, 18, 1078-1093. | 1.1 | 16 |
| 49 | Phenotypic Analysis Reveals that the 2010 Haiti Cholera Epidemic Is Linked to a Hypervirulent Strain. <i>Infection and Immunity</i> , 2016, 84, 2473-2481. | 1.0 | 48 |
| 50 | Multifunctional-autoprocessing repeats-in-toxin (MARTX) Toxins of <i>Vibrios</i> . <i>Microbiology Spectrum</i> , 2015, 3, . | 1.2 | 100 |
| 51 | Induced autoprocessing of the cytopathic Makes caterpillars floppy-like effector domain of the <i>Vibrio vulnificus</i> MARTX toxin. <i>Cellular Microbiology</i> , 2015, 17, 1494-1509. | 1.1 | 22 |
| 52 | Draft Genome Sequences of Four Closely Linked <i>Vibrio vulnificus</i> Isolates from the Biotype 1 Environmental Genotype. <i>Genome Announcements</i> , 2015, 3, . | 0.8 | 1 |
| 53 | Mechanisms of Inflammasome Activation by <i>Vibrio cholerae</i> Secreted Toxins Vary with Strain Biotype. <i>Infection and Immunity</i> , 2015, 83, 2496-2506. | 1.0 | 15 |
| 54 | Autophagy and endosomal trafficking inhibition by <i>Vibrio cholerae</i> MARTX toxin phosphatidylinositol-3-phosphate-specific phospholipase A1 activity. <i>Nature Communications</i> , 2015, 6, 8745. | 5.8 | 40 |

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|----|--|-----|-----------|
| 55 | MARTX toxins as effector delivery platforms. <i>Pathogens and Disease</i> , 2015, 73, ftv092. | 0.8 | 37 |
| 56 | Site-specific processing of Ras and Rap1 Switch I by a MARTX toxin effector domain. <i>Nature Communications</i> , 2015, 6, 7396. | 5.8 | 64 |
| 57 | The Makes Caterpillars Floppy (MCF)-Like Domain of <i>Vibrio vulnificus</i> Induces Mitochondrion-Mediated Apoptosis. <i>Infection and Immunity</i> , 2015, 83, 4392-4403. | 1.0 | 17 |
| 58 | Distinct Roles of the Repeat-Containing Regions and Effector Domains of the <i>Vibrio vulnificus</i> Multifunctional-Autoprocessing Repeats-in-Toxin (MARTX) Toxin. <i>MBio</i> , 2015, 6, . | 1.8 | 48 |
| 59 | <scp><i>V</i></scp><i>ibrio cholerae</i>â€¦<scp>MARTX</scp> toxin heterologous translocation of betaâ€œlactamase and roles of individual effector domains on cytoskeleton dynamics. <i>Molecular Microbiology</i> , 2015, 95, 590-604. | 1.2 | 44 |
| 60 | A bacterial toxin that cleaves Ras oncoprotein. <i>Oncotarget</i> , 2015, 6, 18742-18743. | 0.8 | 4 |
| 61 | Cytotoxicity of the <i>V</i> <i>ibrio vulnificus</i> MARTX toxin Effector DUF5 is linked to the C2A Subdomain. <i>Proteins: Structure, Function and Bioinformatics</i> , 2014, 82, 2643-2656. | 1.5 | 37 |
| 62 | <i>Vibrio vulnificus</i> Biotype 3 Multifunctional Autoprocessing RTX Toxin Is an Adenylate Cyclase Toxin Essential for Virulence in Mice. <i>Infection and Immunity</i> , 2014, 82, 2148-2157. | 1.0 | 51 |
| 63 | Backbone and side-chain assignments of an effector membrane localization domain from <i>Vibrio vulnificus</i> MARTX toxin. <i>Biomolecular NMR Assignments</i> , 2014, 8, 225-228. | 0.4 | 4 |
| 64 | Backbone and side-chain resonance assignments of the membrane localization domain from <i>Pasteurella multocida</i> toxin. <i>Biomolecular NMR Assignments</i> , 2014, 8, 221-224. | 0.4 | 4 |
| 65 | Draft Genome Sequence of Israeli Outbreak-Associated <i>Vibrio vulnificus</i> Biotype 3 Clinical Isolate BAA87. <i>Genome Announcements</i> , 2014, 2, . | 0.8 | 5 |
| 66 | Analysis of <i>Vibrio cholerae</i> Genome Sequences Reveals Unique <i>rtxA</i> Variants in Environmental Strains and an <i>rtxA</i> -Null Mutation in Recent Altered El Tor Isolates. <i>MBio</i> , 2013, 4, e00624. | 1.8 | 43 |
| 67 | Identification of a His-Asp-Cys Catalytic Triad Essential for Function of the Rho Inactivation Domain (RID) of <i>Vibrio cholerae</i> MARTX Toxin. <i>Journal of Biological Chemistry</i> , 2013, 288, 1397-1408. | 1.6 | 31 |
| 68 | Large Scale Structural Rearrangement of a Serine Hydrolase from <i>Francisella tularensis</i> Facilitates Catalysis. <i>Journal of Biological Chemistry</i> , 2013, 288, 10522-10535. | 1.6 | 28 |
| 69 | Promotion of Colonization and Virulence by Cholera Toxin Is Dependent on Neutrophils. <i>Infection and Immunity</i> , 2013, 81, 3338-3345. | 1.0 | 13 |
| 70 | Additive Function of <i>Vibrio vulnificus</i> MARTXVv and VvhA Cytolysins Promotes Rapid Growth and Epithelial Tissue Necrosis During Intestinal Infection. <i>PLoS Pathogens</i> , 2012, 8, e1002581. | 2.1 | 121 |
| 71 | Plasma membrane association of three classes of bacterial toxins is mediated by a basic-hydrophobic motif. <i>Cellular Microbiology</i> , 2012, 14, 286-298. | 1.1 | 43 |
| 72 | Structure and Function of MARTX Toxins and Other Large Repetitive RTX Proteins. <i>Annual Review of Microbiology</i> , 2011, 65, 71-90. | 2.9 | 148 |

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|----|---|-----|-----------|
| 73 | <i>Vibrio vulnificus</i> 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. | 3.3 | 90 |
| 74 | 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. | 3.3 | 76 |
| 75 | Inositol Hexakisphosphate-Induced Autoprocessing of Large Bacterial Protein Toxins. PLoS Pathogens, 2010, 6, e1000942. | 2.1 | 68 |
| 76 | Actin Crosslinking Toxins of Gram-Negative Bacteria. Toxins, 2009, 1, 123-133. | 1.5 | 22 |
| 77 | Successful Small Intestine Colonization of Adult Mice by <i>Vibrio cholerae</i> Requires Ketamine Anesthesia and Accessory Toxins. PLoS ONE, 2009, 4, e7352. | 1.1 | 74 |
| 78 | The <i>Vibrio cholerae</i> Flagellar Regulatory Hierarchy Controls Expression of Virulence Factors. Journal of Bacteriology, 2009, 191, 6555-6570. | 1.0 | 186 |
| 79 | Structural and Molecular Mechanism for Autoprocessing of MARTX Toxin of <i>Vibrio cholerae</i> at Multiple Sites. Journal of Biological Chemistry, 2009, 284, 26557-26568. | 1.6 | 75 |
| 80 | Genetic determination of essential residues of the <i>Vibrio cholerae</i> actin crosslinking domain reveals functional similarity with glutamine synthetases. Molecular Microbiology, 2009, 73, 858-868. | 1.2 | 23 |
| 81 | Bacterial Martyrdom: Phagocytes Disabled by Type VI Secretion after Engulfing Bacteria. Cell Host and Microbe, 2009, 5, 213-214. | 5.1 | 8 |