Stephen H Leppla

List of Publications by Year
in descending order

81	6,231	109321	69250
papers	citations	35 h-index	77 g-index

81	81	81	3871
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Imaging of anthrax intoxication in mice reveals shared and individual functions of surface receptors CMG-2 and TEM-8 in cellular toxin entry. Journal of Biological Chemistry, 2022, 298, 101467.	3.4	4
2	Structural basis of R-loop recognition by the S9.6 monoclonal antibody. Nature Communications, 2022, 13, 1641.	12.8	32
3	Selective targeting of metastatic ovarian cancer using an engineered anthrax prodrug activated by membrane-anchored serine proteases. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	4
4	A potent tumor-selective ERK pathway inactivator with high therapeutic index. , 2022, 1, .		1
5	Hydrophobic Gating and 1/f Noise of the Anthrax Toxin Channel. Journal of Physical Chemistry B, 2021, 125, 5466-5478.	2.6	4
6	Characterization of the NLRP1 inflammasome response in bovine species. Innate Immunity, 2020, 26, 301-311.	2.4	3
7	Anthrax lethal factor cleaves regulatory subunits of phosphoinositide-3 kinase to contribute to toxin lethality. Nature Microbiology, 2020, 5, 1464-1471.	13.3	9
8	Lethal Factor Domain-Mediated Delivery of Nurr1 Transcription Factor Enhances Tyrosine Hydroxylase Activity and Protects from Neurotoxin-Induced Degeneration of Dopaminergic Cells. Molecular Neurobiology, 2019, 56, 3393-3403.	4.0	13
9	Pre-labelling versus direct labelling of anthrax proteins for imaging of matrix metalloproteinases activity using DOTA-GA. Nuclear Medicine and Biology, 2019, 72-73, 49-54.	0.6	3
10	Exploring the Nature of Cationic Blocker Recognition by the Anthrax Toxin Channel. Biophysical Journal, 2019, 117, 1751-1763.	0.5	4
11	Bacillus anthracis Virulence Regulator AtxA Binds Specifically to the pagA Promoter Region. Journal of Bacteriology, 2019, 201, .	2.2	17
12	Tumor Imaging Using Radiolabeled Matrix Metalloproteinaseâ€“Activated Anthrax Proteins. Journal of Nuclear Medicine, 2019, 60, 1474-1482.	5.0	6
13	Bismaleimide crossâ€linked anthrax toxin forms functional octamers with high specificity in tumor targeting. Protein Science, 2019, 28, 1059-1070.	7.6	1
14	Effect of over expressing protective antigen on global gene transcription in Bacillus anthracis BH500. Scientific Reports, 2018, 8, 16108.	3.3	3
15	Effect of late endosomal DOBMP lipid and traditional model lipids of electrophysiology on the anthrax toxin channel activity. Biochimica Et Biophysica Acta - Biomembranes, 2018, 1860, 2192-2203.	2.6	4
16	Genome engineering in Bacillus anthracis using tyrosine site-specific recombinases. PLoS ONE, 2017, 12, e0183346.	2.5	17
17	Tumor Targeting and Drug Delivery by Anthrax Toxin. Toxins, 2016, 8, 197.	3.4	46
18	The IntXO-PSL Recombination System Is a Key Component of the Second Maintenance System for Bacillus anthracis Plasmid pXO1. Journal of Bacteriology, 2016, 198, 1939-1951.	2.2	2

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19	Anthrax Toxin Protective Antigen Variants That Selectively Utilize either the CMG2 or TEM8 Receptors for Cellular Uptake and Tumor Targeting. Journal of Biological Chemistry, 2016, 291, 22021-22029.	3.4	15
20	Solid tumor therapy by selectively targeting stromal endothelial cells. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E4079-87.	7.1	39
21	Sulforaphane inhibits multiple inflammasomes through an Nrf2-independent mechanism. Journal of Leukocyte Biology, 2016, 99, 189-199.	3.3	118
22	Hfqs in <scp>B</scp>acillus anthracis: Role of protein sequence variation in the structure and function of proteins in the <scp>H</scp>fq family. Protein Science, 2015, 24, 1808-1819.	7.6	14
23	Anthrax Pathogenesis. Annual Review of Microbiology, 2015, 69, 185-208.	7.3	230
24	Targeting the membrane-anchored serine protease testisin with a novel engineered anthrax toxin prodrug to kill tumor cells and reduce tumor burden. Oncotarget, 2015, 6, 33534-33553.	1.8	12
25	Inflammasome Sensor NLRP1 Controls Rat Macrophage Susceptibility to Toxoplasma gondii. PLoS Pathogens, 2014, 10, e1003927.	4.7	127
26	Anthrax lethal and edema toxins in anthrax pathogenesis. Trends in Microbiology, 2014, 22, 317-325.	7.7	178
27	Identification of Three Noncontiguous Regions on Bacillus anthracis Plasmid pXO1 That Are Important for Its Maintenance. Journal of Bacteriology, 2014, 196, 2921-2933.	2.2	7
28	Transcriptome analysis identifies Bacillus anthracis genes that respond to CO2through an AtxA-dependent mechanism. BMC Genomics, 2014, 15, 229.	2.8	20
29	Comparative toxicity and efficacy of engineered anthrax lethal toxin variants with broad anti-tumor activities. Toxicology and Applied Pharmacology, 2014, 279, 220-229.	2.8	19
30	Key tissue targets responsible for anthrax-toxin-induced lethality. Nature, 2013, 501, 63-68.	27.8	101
31	Tumor therapy with a urokinase plasminogen activator-activated anthrax lethal toxin alone and in combination with paclitaxel. Investigational New Drugs, 2013, 31, 206-212.	2.6	8
32	Recombinant expression and purification of a tumor-targeted toxin in Bacillus anthracis. Biochemical and Biophysical Research Communications, 2013, 430, 150-155.	2.1	5
33	Anthrax Toxin-Mediated Delivery of the Pseudomonas Exotoxin A Enzymatic Domain to the Cytosol of Tumor Cells via Cleavable Ubiquitin Fusions. MBio, 2013, 4, e00201-13.	4.1	19
34	Engineering Anthrax Toxin Variants That Exclusively Form Octamers and Their Application to Targeting Tumors. Journal of Biological Chemistry, 2013, 288, 9058-9065.	3.4	35
35	Anthrax Edema Factor Toxicity Is Strongly Mediated by the N-end Rule. PLoS ONE, 2013, 8, e74474.	2.5	13
36	Anthrax Lethal Factor. , 2013, , 1257-1261.		2

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37	Anthrax Lethal Factor Cleavage of Nlrp1 Is Required for Activation of the Inflammasome. PLoS Pathogens, 2012, 8, e1002638.	4.7	275
38	Anthrax and the inflammasome. Microbes and Infection, 2012, 14, 392-400.	1.9	77
39	Methylation-dependent DNA restriction in Bacillus anthracis. Gene, 2012, 494, 44-50.	2.2	16
40	Lipoprotein biosynthesis by prolipoprotein diacylglyceryl transferase is required for efficient spore germination and full virulence of Bacillus anthracis. Molecular Microbiology, 2012, 83, 96-109.	2.5	25
41	Anthrax Lethal Factor Cleaves Mouse Nlrp1b in Both Toxin-Sensitive and Toxin-Resistant Macrophages. PLoS ONE, 2012, 7, e49741.	2.5	112
42	A Bacillus anthracis strain deleted for six proteases serves as an effective host for production of recombinant proteins. Protein Expression and Purification, 2011, 80, 80-90.	1.3	53
43	Efficient Targeting of Head and Neck Squamous Cell Carcinoma by Systemic Administration of a Dual uPA and MMP-Activated Engineered Anthrax Toxin. PLoS ONE, 2011, 6, e20532.	2.5	27
44	Characterization of a Chinese Hamster Ovary Cell Mutant Having a Mutation in Elongation Factor-2. PLoS ONE, 2010, 5, e9078.	2.5	6
45	Inhibition of Tumor Angiogenesis by the Matrix Metalloproteinaseâ€“Activated Anthrax Lethal Toxin in an Orthotopic Model of Anaplastic Thyroid Carcinoma. Molecular Cancer Therapeutics, 2010, 9, 190-201.	4.1	28
46	Inflammasome Sensor Nlrp1b-Dependent Resistance to Anthrax Is Mediated by Caspase-1, IL-1 Signaling and Neutrophil Recruitment. PLoS Pathogens, 2010, 6, e1001222.	4.7	110
47	Susceptibility to Anthrax Lethal Toxin-Induced Rat Death Is Controlled by a Single Chromosome 10 Locus That Includes rNlrp1. PLoS Pathogens, 2010, 6, e1000906.	4.7	86
48	Anthrax lethal toxin activates the inflammasome in sensitive rat macrophages. Biochemical and Biophysical Research Communications, 2010, 398, 785-789.	2.1	34
49	Capillary morphogenesis protein-2 is the major receptor mediating lethality of anthrax toxin in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 12424-12429.	7.1	149
50	Matrix Metalloproteinaseâ€“Activated Anthrax Lethal Toxin Inhibits Endothelial Invasion and Neovasculature Formation during In vitro Morphogenesis. Molecular Cancer Research, 2009, 7, 452-461.	3.4	19
51	The Heart Is an Early Target of Anthrax Lethal Toxin in Mice: A Protective Role for Neuronal Nitric Oxide Synthase (nNOS). PLoS Pathogens, 2009, 5, e1000456.	4.7	58
52	A New Minimal Replicon ofBacillus anthracisPlasmid pXO1. Journal of Bacteriology, 2009, 191, 5134-5146.	2.2	31
53	PapR peptide maturation: role of the NprB protease inBacillus cereus569 PlcR/PapR global gene regulation. FEMS Immunology and Medical Microbiology, 2009, 55, 361-377.	2.7	34
54	Cellular and systemic effects of anthrax lethal toxin and edema toxin. Molecular Aspects of Medicine, 2009, 30, 439-455.	6.4	210

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55	Anthrax Toxin Uptake by Primary Immune Cells as Determined with a Lethal Factor-Î²-Lactamase Fusion Protein. PLoS ONE, 2009, 4, e7946.	2.5	26
56	The diphthamide modification on elongation factor-2 renders mammalian cells resistant to ricin. Cellular Microbiology, 2008, 10, 1687-1694.	2.1	19
57	Matrix Metalloproteinase-activated Anthrax Lethal Toxin Demonstrates High Potency in Targeting Tumor Vasculature. Journal of Biological Chemistry, 2008, 283, 529-540.	3.4	72
58	Role of N-Terminal Amino Acids in the Potency of Anthrax Lethal Factor. PLoS ONE, 2008, 3, e3130.	2.5	53
59	Selection of Anthrax Toxin Protective Antigen Variants That Discriminate between the Cellular Receptors TEM8 and CMG2 and Achieve Targeting of Tumor Cells. Journal of Biological Chemistry, 2007, 282, 9834-9845.	3.4	36
60	Anthrax Protective Antigen Cleavage and Clearance from the Blood of Mice and Rats. Infection and Immunity, 2007, 75, 5175-5184.	2.2	71
61	Systematic Urokinase-Activated Anthrax Toxin Therapy Produces Regressions of Subcutaneous Human Nonâ€“Small Cell Lung Tumor in Athymic Nude Mice. Cancer Research, 2007, 67, 3329-3336.	0.9	31
62	Imaging specific cell-surface proteolytic activity in single living cells. Nature Methods, 2006, 3, 259-261.	19.0	51
63	Systemic Anthrax Lethal Toxin Therapy Produces Regressions of Subcutaneous Human Melanoma Tumors in Athymic Nude Mice. Clinical Cancer Research, 2006, 12, 7437-7443.	7.0	38
64	Antitumor efficacy of a urokinase activationâ€“dependent anthrax toxin. Molecular Cancer Therapeutics, 2006, 5, 89-96.	4.1	34
65	A urokinase-activated recombinant anthrax toxin is selectively cytotoxic to many human tumor cell types. Molecular Cancer Therapeutics, 2006, 5, 2556-2562.	4.1	45
66	Genome Engineering in Bacillus anthracis Using Cre Recombinase. Infection and Immunity, 2006, 74, 682-693.	2.2	77
67	Intermolecular complementation achieves high-specificity tumor targeting by anthrax toxin. Nature Biotechnology, 2005, 23, 725-730.	17.5	62
68	The structural basis for substrate and inhibitor selectivity of the anthrax lethal factor. Nature Structural and Molecular Biology, 2004, 11, 60-66.	8.2	182
69	Anthrax lethal factor. , 2004, , 781-783.		0
70	Potent antitumor activity of a urokinase-activated engineered anthrax toxin. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 657-662.	7.1	122
71	Development of an improved vaccine for anthrax. Journal of Clinical Investigation, 2002, 110, 141-144.	8.2	103
72	Development of an improved vaccine for anthrax. Journal of Clinical Investigation, 2002, 110, 141-144.	8.2	71

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73	Induction of hepatitis C virus-specific cytotoxic T lymphocytes in mice by immunization with dendritic cells treated with an anthrax toxin fusion protein. Vaccine, 2001, 20, 789-796.	3.8	30
74	Targeting of Tumor Cells by Cell Surface Urokinase Plasminogen Activator-dependent Anthrax Toxin. Journal of Biological Chemistry, 2001, 276, 17976-17984.	3.4	147
75	Optimized Production and Purification of Bacillus anthracis Lethal Factor. Protein Expression and Purification, 2000, 18, 293-302.	1.3	114
76	Oligomerization of Anthrax Toxin Protective Antigen and Binding of Lethal Factor during Endocytic Uptake into Mammalian Cells. Infection and Immunity, 1999, 67, 1853-1859.	2.2	105
77	Proteolytic Inactivation of MAP-Kinase-Kinase by Anthrax Lethal Factor. Science, 1998, 280, 734-737.	12.6	992
78	Crystal structure of the anthrax toxin protective antigen. Nature, 1997, 385, 833-838.	27.8	763
79	Furin is important but not essential for the proteolytic maturation of gp160 of HIV-1. FEBS Letters, 1995, 365, 95-97.	2.8	37
80	Anthrax toxin lethal factor contains a zinc metalloprotease consensus sequence which is required for lethal toxin activity. Molecular Microbiology, 1994, 13, 1093-1100.	2.5	312
81	Cloning of the protective antigen gene of Bacillus anthracis. Cell, 1983, 34, 693-697.	28.9	153