

Stephen H Leppla

List of Publications by Year in descending order

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81
papers

6,231
citations

109321

35
h-index

69250

77
g-index

81
all docs

81
docs citations

81
times ranked

3871
citing authors

#	ARTICLE	IF	CITATIONS
1	Proteolytic Inactivation of MAP-Kinase-Kinase by Anthrax Lethal Factor. <i>Science</i> , 1998, 280, 734-737.	12.6	992
2	Crystal structure of the anthrax toxin protective antigen. <i>Nature</i> , 1997, 385, 833-838.	27.8	763
3	Anthrax toxin lethal factor contains a zinc metalloprotease consensus sequence which is required for lethal toxin activity. <i>Molecular Microbiology</i> , 1994, 13, 1093-1100.	2.5	312
4	Anthrax Lethal Factor Cleavage of Nlrp1 Is Required for Activation of the Inflammasome. <i>PLoS Pathogens</i> , 2012, 8, e1002638.	4.7	275
5	Anthrax Pathogenesis. <i>Annual Review of Microbiology</i> , 2015, 69, 185-208.	7.3	230
6	Cellular and systemic effects of anthrax lethal toxin and edema toxin. <i>Molecular Aspects of Medicine</i> , 2009, 30, 439-455.	6.4	210
7	The structural basis for substrate and inhibitor selectivity of the anthrax lethal factor. <i>Nature Structural and Molecular Biology</i> , 2004, 11, 60-66.	8.2	182
8	Anthrax lethal and edema toxins in anthrax pathogenesis. <i>Trends in Microbiology</i> , 2014, 22, 317-325.	7.7	178
9	Cloning of the protective antigen gene of <i>Bacillus anthracis</i> . <i>Cell</i> , 1983, 34, 693-697.	28.9	153
10	Capillary morphogenesis protein-2 is the major receptor mediating lethality of anthrax toxin in vivo. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 12424-12429.	7.1	149
11	Targeting of Tumor Cells by Cell Surface Urokinase Plasminogen Activator-dependent Anthrax Toxin. <i>Journal of Biological Chemistry</i> , 2001, 276, 17976-17984.	3.4	147
12	Inflammasome Sensor NLRP1 Controls Rat Macrophage Susceptibility to <i>Toxoplasma gondii</i> . <i>PLoS Pathogens</i> , 2014, 10, e1003927.	4.7	127
13	Potent antitumor activity of a urokinase-activated engineered anthrax toxin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 657-662.	7.1	122
14	Sulforaphane inhibits multiple inflammasomes through an Nrf2-independent mechanism. <i>Journal of Leukocyte Biology</i> , 2016, 99, 189-199.	3.3	118
15	Optimized Production and Purification of <i>Bacillus anthracis</i> Lethal Factor. <i>Protein Expression and Purification</i> , 2000, 18, 293-302.	1.3	114
16	Anthrax Lethal Factor Cleaves Mouse Nlrp1b in Both Toxin-Sensitive and Toxin-Resistant Macrophages. <i>PLoS ONE</i> , 2012, 7, e49741.	2.5	112
17	Inflammasome Sensor Nlrp1b-Dependent Resistance to Anthrax Is Mediated by Caspase-1, IL-1 Signaling and Neutrophil Recruitment. <i>PLoS Pathogens</i> , 2010, 6, e1001222.	4.7	110
18	Oligomerization of Anthrax Toxin Protective Antigen and Binding of Lethal Factor during Endocytic Uptake into Mammalian Cells. <i>Infection and Immunity</i> , 1999, 67, 1853-1859.	2.2	105

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19	Development of an improved vaccine for anthrax. <i>Journal of Clinical Investigation</i> , 2002, 110, 141-144.	8.2	103
20	Key tissue targets responsible for anthrax-toxin-induced lethality. <i>Nature</i> , 2013, 501, 63-68.	27.8	101
21	Susceptibility to Anthrax Lethal Toxin-Induced Rat Death Is Controlled by a Single Chromosome 10 Locus That Includes rNlrp1. <i>PLoS Pathogens</i> , 2010, 6, e1000906.	4.7	86
22	Genome Engineering in <i>Bacillus anthracis</i> Using Cre Recombinase. <i>Infection and Immunity</i> , 2006, 74, 682-693.	2.2	77
23	Anthrax and the inflammasome. <i>Microbes and Infection</i> , 2012, 14, 392-400.	1.9	77
24	Matrix Metalloproteinase-activated Anthrax Lethal Toxin Demonstrates High Potency in Targeting Tumor Vasculature. <i>Journal of Biological Chemistry</i> , 2008, 283, 529-540.	3.4	72
25	Anthrax Protective Antigen Cleavage and Clearance from the Blood of Mice and Rats. <i>Infection and Immunity</i> , 2007, 75, 5175-5184.	2.2	71
26	Development of an improved vaccine for anthrax. <i>Journal of Clinical Investigation</i> , 2002, 110, 141-144.	8.2	71
27	Intermolecular complementation achieves high-specificity tumor targeting by anthrax toxin. <i>Nature Biotechnology</i> , 2005, 23, 725-730.	17.5	62
28	The Heart Is an Early Target of Anthrax Lethal Toxin in Mice: A Protective Role for Neuronal Nitric Oxide Synthase (nNOS). <i>PLoS Pathogens</i> , 2009, 5, e1000456.	4.7	58
29	Role of N-Terminal Amino Acids in the Potency of Anthrax Lethal Factor. <i>PLoS ONE</i> , 2008, 3, e3130.	2.5	53
30	A <i>Bacillus anthracis</i> strain deleted for six proteases serves as an effective host for production of recombinant proteins. <i>Protein Expression and Purification</i> , 2011, 80, 80-90.	1.3	53
31	Imaging specific cell-surface proteolytic activity in single living cells. <i>Nature Methods</i> , 2006, 3, 259-261.	19.0	51
32	Tumor Targeting and Drug Delivery by Anthrax Toxin. <i>Toxins</i> , 2016, 8, 197.	3.4	46
33	A urokinase-activated recombinant anthrax toxin is selectively cytotoxic to many human tumor cell types. <i>Molecular Cancer Therapeutics</i> , 2006, 5, 2556-2562.	4.1	45
34	Solid tumor therapy by selectively targeting stromal endothelial cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E4079-87.	7.1	39
35	Systemic Anthrax Lethal Toxin Therapy Produces Regressions of Subcutaneous Human Melanoma Tumors in Athymic Nude Mice. <i>Clinical Cancer Research</i> , 2006, 12, 7437-7443.	7.0	38
36	Furin is important but not essential for the proteolytic maturation of gp160 of HIV-1. <i>FEBS Letters</i> , 1995, 365, 95-97.	2.8	37

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37	Selection of Anthrax Toxin Protective Antigen Variants That Discriminate between the Cellular Receptors TEM8 and CMG2 and Achieve Targeting of Tumor Cells. <i>Journal of Biological Chemistry</i> , 2007, 282, 9834-9845.	3.4	36
38	Engineering Anthrax Toxin Variants That Exclusively Form Octamers and Their Application to Targeting Tumors. <i>Journal of Biological Chemistry</i> , 2013, 288, 9058-9065.	3.4	35
39	Antitumor efficacy of a urokinase activationâ€‘dependent anthrax toxin. <i>Molecular Cancer Therapeutics</i> , 2006, 5, 89-96.	4.1	34
40	PapR peptide maturation: role of the NprB protease in <i>Bacillus cereus</i> 569 PlcR/PapR global gene regulation. <i>FEMS Immunology and Medical Microbiology</i> , 2009, 55, 361-377.	2.7	34
41	Anthrax lethal toxin activates the inflammasome in sensitive rat macrophages. <i>Biochemical and Biophysical Research Communications</i> , 2010, 398, 785-789.	2.1	34
42	Structural basis of R-loop recognition by the S9.6 monoclonal antibody. <i>Nature Communications</i> , 2022, 13, 1641.	12.8	32
43	Systematic Urokinase-Activated Anthrax Toxin Therapy Produces Regressions of Subcutaneous Human Nonâ€‘Small Cell Lung Tumor in Athymic Nude Mice. <i>Cancer Research</i> , 2007, 67, 3329-3336.	0.9	31
44	A New Minimal Replicon of <i>Bacillus anthracis</i> Plasmid pXO1. <i>Journal of Bacteriology</i> , 2009, 191, 5134-5146.	2.2	31
45	Induction of hepatitis C virus-specific cytotoxic T lymphocytes in mice by immunization with dendritic cells treated with an anthrax toxin fusion protein. <i>Vaccine</i> , 2001, 20, 789-796.	3.8	30
46	Inhibition of Tumor Angiogenesis by the Matrix Metalloproteinaseâ€‘Activated Anthrax Lethal Toxin in an Orthotopic Model of Anaplastic Thyroid Carcinoma. <i>Molecular Cancer Therapeutics</i> , 2010, 9, 190-201.	4.1	28
47	Efficient Targeting of Head and Neck Squamous Cell Carcinoma by Systemic Administration of a Dual uPA and MMP-Activated Engineered Anthrax Toxin. <i>PLoS ONE</i> , 2011, 6, e20532.	2.5	27
48	Anthrax Toxin Uptake by Primary Immune Cells as Determined with a Lethal Factor-Î²-Lactamase Fusion Protein. <i>PLoS ONE</i> , 2009, 4, e7946.	2.5	26
49	Lipoprotein biosynthesis by prolipoprotein diacylglycerol transferase is required for efficient spore germination and full virulence of <i>Bacillus anthracis</i> . <i>Molecular Microbiology</i> , 2012, 83, 96-109.	2.5	25
50	Transcriptome analysis identifies <i>Bacillus anthracis</i> genes that respond to CO ₂ through an AtxA-dependent mechanism. <i>BMC Genomics</i> , 2014, 15, 229.	2.8	20
51	The diphthamide modification on elongation factor-2 renders mammalian cells resistant to ricin. <i>Cellular Microbiology</i> , 2008, 10, 1687-1694.	2.1	19
52	Matrix Metalloproteinaseâ€‘Activated Anthrax Lethal Toxin Inhibits Endothelial Invasion and Neovasculture Formation during <i>In vitro</i> Morphogenesis. <i>Molecular Cancer Research</i> , 2009, 7, 452-461.	3.4	19
53	Anthrax Toxin-Mediated Delivery of the <i>Pseudomonas</i> Exotoxin A Enzymatic Domain to the Cytosol of Tumor Cells via Cleavable Ubiquitin Fusions. <i>MBio</i> , 2013, 4, e00201-13.	4.1	19
54	Comparative toxicity and efficacy of engineered anthrax lethal toxin variants with broad anti-tumor activities. <i>Toxicology and Applied Pharmacology</i> , 2014, 279, 220-229.	2.8	19

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55	Bacillus anthracis Virulence Regulator AtxA Binds Specifically to the <i>pagA</i> Promoter Region. Journal of Bacteriology, 2019, 201, .	2.2	17
56	Genome engineering in Bacillus anthracis using tyrosine site-specific recombinases. PLoS ONE, 2017, 12, e0183346.	2.5	17
57	Methylation-dependent DNA restriction in Bacillus anthracis. Gene, 2012, 494, 44-50.	2.2	16
58	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
59	Hfq's in <i>Bacillus anthracis</i> : Role of protein sequence variation in the structure and function of proteins in the Hfq family. Protein Science, 2015, 24, 1808-1819.	7.6	14
60	Anthrax Edema Factor Toxicity Is Strongly Mediated by the N-end Rule. PLoS ONE, 2013, 8, e74474.	2.5	13
61	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
62	Targeting the membrane-anchored serine protease testisin with a novel engineered anthrax toxin prodrg to kill tumor cells and reduce tumor burden. Oncotarget, 2015, 6, 33534-33553.	1.8	12
63	Anthrax lethal factor cleaves regulatory subunits of phosphoinositide-3 kinase to contribute to toxin lethality. Nature Microbiology, 2020, 5, 1464-1471.	13.3	9
64	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
65	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
66	Characterization of a Chinese Hamster Ovary Cell Mutant Having a Mutation in Elongation Factor-2. PLoS ONE, 2010, 5, e9078.	2.5	6
67	Tumor Imaging Using Radiolabeled Matrix Metalloproteinase-Activated Anthrax Proteins. Journal of Nuclear Medicine, 2019, 60, 1474-1482.	5.0	6
68	Recombinant expression and purification of a tumor-targeted toxin in Bacillus anthracis. Biochemical and Biophysical Research Communications, 2013, 430, 150-155.	2.1	5
69	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
70	Exploring the Nature of Cationic Blocker Recognition by the Anthrax Toxin Channel. Biophysical Journal, 2019, 117, 1751-1763.	0.5	4
71	Hydrophobic Gating and 1/f Noise of the Anthrax Toxin Channel. Journal of Physical Chemistry B, 2021, 125, 5466-5478.	2.6	4
72	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

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73	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
74	Effect of over expressing protective antigen on global gene transcription in Bacillus anthracis BH500. Scientific Reports, 2018, 8, 16108.	3.3	3
75	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
76	Characterization of the NLRP1 inflammasome response in bovine species. Innate Immunity, 2020, 26, 301-311.	2.4	3
77	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
78	Anthrax Lethal Factor. , 2013, , 1257-1261.		2
79	Bismaleimide cross-linked anthrax toxin forms functional octamers with high specificity in tumor targeting. Protein Science, 2019, 28, 1059-1070.	7.6	1
80	A potent tumor-selective ERK pathway inactivator with high therapeutic index. , 2022, 1, .		1
81	Anthrax lethal factor. , 2004, , 781-783.		0