Bal-Ram Singh

List of Publications by Year
in descending order

80 papers	2,219 citations	236925 25 h-index	243625 44 g-index
82 all docs	82 docs citations	82 times ranked	1472 citing authors

#	Article	IF	Citations
1	Critical analysis in the advancement of cell-based assays for botulinum neurotoxin. Critical Reviews in Microbiology, 2023, 49, 1-17.	6.1	1
2	Botulinum neurotoxin inhibitor binding dynamics and kinetics relevant for drug design. Biochimica Et Biophysica Acta - General Subjects, 2021, 1865, 129933.	2.4	3
3	Clostridial Neurotoxins: Structure, Function and Implications to Other Bacterial Toxins. Microorganisms, 2021, 9, 2206.	3.6	9
4	Dramatic neurological and biological effects by botulinum neurotoxin type A on SH-SY5Y neuroblastoma cells, beyond the blockade of neurotransmitter release. BMC Pharmacology & Toxicology, 2020, 21, 66.	2.4	3
5	Botulinum Endopeptidase: SAXS Experiments and MD Simulations Reveal Extended Solution Structures That Account for Its Biochemical Properties. Journal of Physical Chemistry B, 2020, 124, 5801-5812.	2.6	5
6	Evolutionary Features in the Structure and Function of Bacterial Toxins. Toxins, 2019, 11, 15.	3.4	20
7	Differential endopeptidase activity of different forms of type A botulinum neurotoxin: A unique relationship between the size ofÂtheÂsubstrate and activity of the enzyme. Toxicon, 2018, 144, 34-41.	1.6	3
8	Natural Compounds and Their Analogues as Potent Antidotes against the Most Poisonous Bacterial Toxin. Applied and Environmental Microbiology, 2018, 84, .	3.1	9
9	Role of critical elements in botulinum neurotoxin complex in toxin routing across intestinal and bronchial barriers. PLoS ONE, 2018, 13, e0199524.	2.5	9
10	A novel role of C-terminus in introducing a functionally flexible structure critical for the biological activity of botulinum neurotoxin. Scientific Reports, 2018, 8, 8884.	3.3	8
11	Physico-chemical analysis of herbally prepared silver nanoparticles and its potential as a drug bioenhancer. OpenNano, 2017, 2, 19-27.	4.8	11
12	High Yield Preparation of Functionally Active Catalytic-Translocation Domain Module of Botulinum Neurotoxin Type A That Exhibits Uniquely Different Enzyme Kinetics. Protein Journal, 2017, 36, 489-501.	1.6	2
13	Historical Perspectives and Guidelines for Botulinum Neurotoxin Subtype Nomenclature. Toxins, 2017, 9, 38.	3.4	232
14	A Novel Surface Plasmon Resonance Biosensor for the Rapid Detection of Botulinum Neurotoxins. Biosensors, 2017, 7, 32.	4.7	21
15	Relevance of Intrinsic Disorder in Protein Structure and Function. SpringerBriefs in Biochemistry and Molecular Biology, 2016, , 29-72.	0.3	1
16	Selection of RNA Aptamers Against Botulinum Neurotoxin Type A Light Chain Through a Non-Radioactive Approach. Applied Biochemistry and Biotechnology, 2016, 180, 10-25.	2.9	7
17	Evolution of Toxin. SpringerBriefs in Biochemistry and Molecular Biology, 2016, , 113-134.	0.3	2
18	In Vivo Toxicity and Immunological Characterization of Detoxified Recombinant Botulinum Neurotoxin Type A. Pharmaceutical Research, 2016, 33, 639-652.	3.5	16

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19	Structural and functional analysis of botulinum neurotoxin subunits for pH-dependent membrane channel formation and translocation. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2015, 1854, 1510-1516.	2.3	7
20	Centrifugal Microfluidic Platform for Ultrasensitive Detection of Botulinum Toxin. Analytical Chemistry, 2015, 87, 922-928.	6.5	63
21	Role of Neurotoxin Associated Proteins in the Low pH Induced Structural Changes in the Botulinum Neurotoxin Complex. Protein Journal, 2014, 33, 557-564.	1.6	3
22	Botulinum neurotoxin: unique folding of enzyme domain of the most-poisonous poison. Journal of Biomolecular Structure and Dynamics, 2014, 32, 804-815.	3.5	12
23	Current strategies for designing antidotes against botulinum neurotoxins. Expert Opinion on Drug Discovery, 2014, 9, 319-333.	5.0	17
24	Type A botulinum neurotoxin complex proteins differentially modulate host response of neuronal cells. Toxicon, 2014, 82, 52-60.	1.6	24
25	Design, synthesis and activities of 4/5-acyl-2-aminoimidazolyl analogues of oroidin for biofilm inhibition. MedChemComm, 2013, 4, 1467.	3.4	4
26	RNA aptasensor for rapid detection of natively folded type A botulinum neurotoxin. Talanta, 2013, 117, 273-280.	5.5	26
27	Effects of enzymatically inactive recombinant botulinum neurotoxin type A at the mouse neuromuscular junctions. Toxicon, 2013, 72, 71-80.	1.6	20
28	Comparative immunochemical characteristics of botulinum neurotoxin type A and its associated proteins. Toxicon, 2013, 72, 126-132.	1.6	19
29	Molecular Composition and Extinction Coefficient of Native Botulinum Neurotoxin Complex Produced by Clostridium botulinum Hall A Strain. Protein Journal, 2013, 32, 106-117.	1.6	17
30	Development of a Fluorescence Internal Quenching Correction Factor to Correct Botulinum Neurotoxin Type A Endopeptidase Kinetics Using SNAPtide. Analytical Chemistry, 2012, 84, 10549-10553.	6.5	15
31	Microarray analysis of differentially regulated genes in human neuronal and epithelial cell lines upon exposure to type A botulinum neurotoxin. Biochemical and Biophysical Research Communications, 2011, 405, 684-690.	2.1	23
32	Structure and trafficking potentials of Botulinum Neurotoxin in drug delivery. Botulinum Journal, 2010, 1, 349.	0.2	2
33	Near-infrared imaging of balb/c mice injected with a detoxified botulinum neurotoxin A. Botulinum Journal, 2010, 1, 431.	0.2	5
34	The Zinc-Dependent Protease Activity of the Botulinum Neurotoxins. Toxins, 2010, 2, 978-997.	3.4	21
35	Endopeptidase Activities of Botulinum Neurotoxin Type B Complex, Holotoxin, and Light Chain. Applied and Environmental Microbiology, 2010, 76, 6658-6663.	3.1	9
36	Molecular Basis of Activation of Endopeptidase Activity of Botulinum Neurotoxin Type E. Biochemistry, 2010, 49, 2510-2519.	2.5	14

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37	Clostridial neurotoxins as a drug delivery vehicle targeting nervous system. Biochimie, 2010, 92, 1252-1259.	2.6	25
38	In vitro selection of RNA aptamers that inhibit the activity of type A botulinum neurotoxin. Biochemical and Biophysical Research Communications, 2010, 396, 854-860.	2.1	44
39	The identification and biochemical characterization of drug-like compounds that inhibit botulinum neurotoxin serotype A endopeptidase activity. Toxicon, 2010, 55, 818-826.	1.6	22
40	An efficient drug delivery vehicle for botulism countermeasure. BMC Pharmacology, 2009, 9, 12.	0.4	29
41	Immunological characterization of the subunits of type A botulinum neurotoxin and different components of its associated proteins. Toxicon, 2009, 53, 616-624.	1.6	49
42	Expression, purification and comparative characterisation of enzymatically deactivated recombinant botulinum neurotoxin type A. Botulinum Journal, 2008, 1, 219.	0.2	14
43	A Targeted Therapeutic Rescues Botulinum Toxin-A Poisoned Neurons. Nature Precedings, 2008, , .	0.1	2
44	Botulism Diagnostics: From Clinical Symptoms toin vitroAssays. Critical Reviews in Microbiology, 2007, 33, 109-125.	6.1	113
45	Targeted Therapeutic Peptide Delivery to Synaptic Junctions as Botulism Countermeasure. FASEB Journal, 2007, 21, A1001.	0.5	0
46	Stability and Endopeptidase Activity of Botulinum Neurotoxin Type A Light Chain. FASEB Journal, 2007, 21, A1006.	0.5	0
47	Resistance of Type A Botulinum Neurotoxin to Lysosomal Proteases. FASEB Journal, 2007, 21, A648.	0.5	0
48	Horizontal Gene Transfer May Involve Clostridium botulinum Neurotoxin Evolution. FASEB Journal, 2007, 21, A622.	0.5	0
49	Botulinum Neurotoxin Light Chain Refolds at Endosomal pH for its Translocation. Protein Journal, 2006, 25, 455-462.	1.6	41
50	Botulinum neurotoxin structure, engineering, and novel cellular trafficking and targeting. Neurotoxicity Research, 2006, 9, 73-92.	2.7	55
51	Spectroscopic analysis of low pH and lipid-induced structural changes in type A botulinum neurotoxin relevant to membrane channel formation and translocation. Biophysical Chemistry, 2002, 99, 17-29.	2.8	25
52	Red light stimulates flowering and anthocyanin biosynthesis in American cranberry. Plant Growth Regulation, 2002, 38, 165-171.	3.4	58
53	Role of the Disulfide Cleavage Induced Molten Globule State of Type A Botulinum Neurotoxin in Its Endopeptidase Activity. Biochemistry, 2001, 40, 15327-15333.	2.5	49
54	Intimate details of the most poisonous poison. , 2000, 7, 617-619.		120

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55	A single protein research integrated advanced biochemistry laboratory course; spectroscopic determination of tyrosyl side chain pKa. Biochemical Education, 2000, 28, 107-109.	0.1	3
56	Isolation, purification, and characterization of glutathione S-transferase from oat (Avena sativa) seedlings. The Protein Journal, 2000, 19, 425-430.	1.1	7
57	Probing the Mechanistic Role of Glutamate Residue in the Zinc-Binding Motif of Type A Botulinum Neurotoxin Light Chainâ€. Biochemistry, 2000, 39, 2399-2405.	2.5	84
58	Role of Zinc Binding in Type A Botulinum Neurotoxin Light Chain's Toxic Structureâ€. Biochemistry, 2000, 39, 10581-10586.	2.5	37
59	Spectroscopic Analysis of pH-Induced Changes in the Molecular Features of Type A Botulinum Neurotoxin Light Chainâ€. Biochemistry, 2000, 39, 6466-6474.	2.5	44
60	Purification and Characterization of the Glutathione-S-transferases from the Northern Quahog Mercinaria mercinaria. Marine Biotechnology, 1999, 1, 74-80.	2.4	15
61	Calcein permeability of liposomes mediated by type A botulinum neurotoxin and its light and heavy chains. The Protein Journal, 1999, 18, 701-707.	1.1	13
62	In vitro translation of type A Clostridium botulinum neurotoxin heavy chain and analysis of its binding to rat synaptosomes. The Protein Journal, 1999, 18, 89-95.	1.1	22
63	Molecular properties of a hemagglutinin purified from type A Clostridium botulinum. The Protein Journal, 1999, 18, 29-38.	1.1	31
64	A First-Day Exercise on Relevance of Chemistry to Nonscience Majors Kindles Sustained Positive Student Response. Journal of Chemical Education, 1999, 76, 1219.	2.3	6
65	Structure-Function Relationship of Clostridial Neurotoxins. Toxin Reviews, 1999, 18, 95-112.	1.5	38
66	Biomedical and Toxico-Chemical Aspects of Botulinum Neurotoxins. Toxin Reviews, 1999, 18, vii-x.	1.5	8
67	Membrane Channel activity and Translocation of Tetanus and Botulinum Neurotoxins. Toxin Reviews, 1999, 18, 45-76.	1.5	18
68	Enhancement of the Endopeptidase Activity of Botulinum Neurotoxin by Its Associated Proteins and Dithiothreitol. Biochemistry, 1999, 38, 6903-6910.	2.5	66
69	Determination of the Secondary Structure of Proteins from Amide I and Amide III Infrared Bands Using Partial Least-Square Method. ACS Symposium Series, 1999, , 117-129.	0.5	3
70	Basic Aspects of the Technique and Applications of Infrared Spectroscopy of Peptides and Proteins. ACS Symposium Series, 1999, , 2-37.	0.5	54
71	High-Level Expression, Purification, and Characterization of Recombinant Type A Botulinum Neurotoxin Light Chain. Protein Expression and Purification, 1999, 17, 339-344.	1.3	27
72	A protease-resistant novel hemagglutinin purified from type A Clostridium botulinum. The Protein Journal, 1998, 17, 53-60.	1.1	63

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73	Role of Zinc in the Structure and Toxic Activity of Botulinum Neurotoxinâ€. Biochemistry, 1998, 37, 5267-5278.	2.5	66
74	Etiquette in Departmental Seminars. Journal of Chemical Education, 1998, 75, 846.	2.3	1
75	Botulinum versus tetanus neurotoxins: Why is botulinum neurotoxin but not tetanus neurotoxin a food poison?. Toxicon, 1995, 33, 1541-1547.	1.6	45
76	Detection of Clostridium botulinum toxin A using a fiber optic-based biosensor. Analytical Biochemistry, 1992, 205, 306-312.	2.4	160
77	Lincomycin-induced alteration in the contents of chlorophyll-protein complexes of dimorphic maize chloroplasts and its effect on the temperature-induced spectral changes. Physiologia Plantarum, 1991, 81, 393-398.	5.2	0
78	Molecular structure of tetanus neurotoxin as revealed by Fourier transform infrared and circular dichroic spectroscopy. Biophysical Chemistry, 1990, 36, 155-166.	2.8	54
79	Structure of heavy and light chain subunits of type A botulinum neurotoxin analyzed by circular dichroism and fluorescence measurements. Molecular and Cellular Biochemistry, 1989, 85, 67-73.	3.1	30
80	Molecular differences between type A botulinum neurotoxin and its toxoid. Toxicon, 1989, 27, 403-410.	1.6	15