Andreas Rummel

List of Publications by Year
in descending order

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Version: 2024-02-01

61	3,876	147726 31	128225 60
papers	citations	h-index	g-index

64	64	64	1512
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The synaptic vesicle protein 2C mediates the uptake of botulinum neurotoxin A into phrenic nerves. FEBS Letters, 2006, 580, 2011-2014.	1.3	285
2	Historical Perspectives and Guidelines for Botulinum Neurotoxin Subtype Nomenclature. Toxins, 2017, 9, 38.	1.5	232
3	Synaptotagmins I and II Act as Nerve Cell Receptors for Botulinum Neurotoxin G. Journal of Biological Chemistry, 2004, 279, 30865-30870.	1.6	220
4	Botulinum neurotoxin B recognizes its protein receptor with high affinity and specificity. Nature, 2006, 444, 1092-1095.	13.7	219
5	The HCC-domain of botulinum neurotoxins A and B exhibits a singular ganglioside binding site displaying serotype specific carbohydrate interaction. Molecular Microbiology, 2003, 51, 631-643.	1.2	205
6	Botulinum Neurotoxin Is Shielded by NTNHA in an Interlocked Complex. Science, 2012, 335, 977-981.	6.0	197
7	Cell entry strategy of clostridial neurotoxins. Journal of Neurochemistry, 2009, 109, 1584-1595.	2.1	175
8	Identification of the protein receptor binding site of botulinum neurotoxins B and G proves the double-receptor concept. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 359-364.	3.3	169
9	Botulinum neurotoxins C, E and F bind gangliosides via a conserved binding site prior to stimulationâ€dependent uptake with botulinum neurotoxin F utilising the three isoforms of SV2 as second receptor. Journal of Neurochemistry, 2009, 110, 1942-1954.	2.1	146
10	Two Carbohydrate Binding Sites in the HCC-domain of Tetanus Neurotoxin are Required for Toxicity. Journal of Molecular Biology, 2003, 326, 835-847.	2.0	127
11	Arg362and Tyr365of the Botulinum Neurotoxin Type A Light Chain Are Involved in Transition State Stabilizationâ€. Biochemistry, 2002, 41, 1717-1723.	1.2	104
12	Medical aspects of toxin weapons. Toxicology, 2005, 214, 210-220.	2.0	102
13	Structure of a Bimodular Botulinum Neurotoxin Complex Provides Insights into Its Oral Toxicity. PLoS Pathogens, 2013, 9, e1003690.	2.1	102
14	Double Receptor Anchorage of Botulinum Neurotoxins Accounts for their Exquisite Neurospecificity. Current Topics in Microbiology and Immunology, 2012, 364, 61-90.	0.7	99
15	Botulinum neurotoxin type D enables cytosolic delivery of enzymatically active cargo proteins to neurones via unfolded translocation intermediates. Journal of Neurochemistry, 2004, 91, 1461-1472.	2.1	95
16	Molecular basis for disruption of E-cadherin adhesion by botulinum neurotoxin A complex. Science, 2014, 344, 1405-1410.	6.0	95
17	N-linked glycosylation of SV2 is required for binding and uptake of botulinum neurotoxin A. Nature Structural and Molecular Biology, 2016, 23, 656-662.	3.6	95
18	Receptor and substrate interactions of clostridial neurotoxins. Toxicon, 2009, 54, 550-560.	0.8	92

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19	The long journey of botulinum neurotoxins into the synapse. Toxicon, 2015, 107, 9-24.	0.8	82
20	Human synaptotagminâ€Ⅱ is not a high affinity receptor for botulinum neurotoxin B and G: Increased therapeutic dosage and immunogenicity. FEBS Letters, 2012, 586, 310-313.	1.3	72
21	Botulinum neurotoxin serotype D attacks neurons via two carbohydrate-binding sites in a ganglioside-dependent manner. Biochemical Journal, 2010, 431, 207-216.	1.7	71
22	The biological activity of botulinum neurotoxin type C is dependent upon novel types of ganglioside binding sites. Molecular Microbiology, 2011, 81, 143-156.	1.2	64
23	Isolation and Functional Characterization of the Novel Clostridium botulinum Neurotoxin A8 Subtype. PLoS ONE, 2015, 10, e0116381.	1.1	59
24	Identification of the SV2 protein receptor-binding site of botulinum neurotoxin typeÂE. Biochemical Journal, 2013, 453, 37-47.	1.7	43
25	Identification of the synaptic vesicle glycoprotein 2 receptor binding site in botulinum neurotoxin A. FEBS Letters, 2014, 588, 1087-1093.	1.3	40
26	Two Feet on the Membrane: Uptake of Clostridial Neurotoxins. Current Topics in Microbiology and Immunology, 2016, 406, 1-37.	0.7	40
27	Draft Genome Sequence of Bivalent Clostridium botulinum Strain IBCA10-7060, Encoding Botulinum Neurotoxin B and a New FA Mosaic Type. Genome Announcements, 2014, 2, .	0.8	39
28	Generation and Characterization of Six Recombinant Botulinum Neurotoxins as Reference Material to Serve in an International Proficiency Test. Toxins, 2015, 7, 5035-5054.	1.5	38
29	Botulinum Neurotoxins: Qualitative and Quantitative Analysis Using the Mouse Phrenic Nerve Hemidiaphragm Assay (MPN). Toxins, 2015, 7, 4895-4905.	1.5	37
30	Neutralisation of specific surface carboxylates speeds up translocation of botulinum neurotoxin type B enzymatic domain. FEBS Letters, 2013, 587, 3831-3836.	1.3	33
31	Exchange of the H_{CC} domain mediating double receptor recognition improves the pharmacodynamic properties of botulinum neurotoxin. FEBS Journal, 2011, 278, 4506-4515.	2.2	32
32	A viral-fusion-peptide-like molecular switch drives membrane insertion of botulinum neurotoxin A1. Nature Communications, 2018, 9, 5367.	5.8	30
33	Botulinum Neurotoxin Serotype A Recognizes Its Protein Receptor SV2 by a Different Mechanism than Botulinum Neurotoxin B Synaptotagmin. Toxins, 2016, 8, 154.	1.5	29
34	Structural Basis of the pH-Dependent Assembly of a Botulinum Neurotoxin Complex. Journal of Molecular Biology, 2014, 426, 3773-3782.	2.0	28
35	Only the complex N559-glycan in the synaptic vesicle glycoprotein 2C mediates high affinity binding to botulinum neurotoxin serotype A1. Biochemical Journal, 2016, 473, 2645-2654.	1.7	28
36	Biological toxins of potential bioterrorism risk: Current status of detection and identification technology. TrAC - Trends in Analytical Chemistry, 2016, 85, 89-102.	5.8	27

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37	Botulinum neurotoxin C mutants reveal different effects of syntaxin or SNAP-25 proteolysis on neuromuscular transmission. PLoS Pathogens, 2017, 13, e1006567.	2.1	27
38	A lipid-binding loop of botulinum neurotoxin serotypes B, DC and G is an essential feature to confer their exquisite potency. PLoS Pathogens, 2018, 14, e1007048.	2.1	27
39	Functional detection of botulinum neurotoxin serotypes A to F by monoclonal neoepitope-specific antibodies and suspension array technology. Scientific Reports, 2019, 9, 5531.	1.6	26
40	Crystal Structure of the Receptor-Binding Domain of Botulinum Neurotoxin Type HA, Also Known as Type FA or H. Toxins, 2017, 9, 93.	1.5	24
41	Qualitative and Quantitative Detection of Botulinum Neurotoxins from Complex Matrices: Results of the First International Proficiency Test. Toxins, 2015, 7, 4935-4966.	1.5	22
42	Botulinum Neurotoxin G Binds Synaptotagmin-II in a Mode Similar to That of Serotype B: Tyrosine 1186 and Lysine 1191 Cause Its Lower Affinity. Biochemistry, 2013, 52, 3930-3938.	1.2	21
43	High-resolution crystal structure of HA33 of botulinum neurotoxin type B progenitor toxin complex. Biochemical and Biophysical Research Communications, 2014, 446, 568-573.	1.0	20
44	Detection, differentiation, and identification of botulinum neurotoxin serotypes C, CD, D, and DC by highly specific immunoassays and mass spectrometry. Analyst, The, 2016, 141, 5281-5297.	1.7	20
45	A camelid single-domain antibody neutralizes botulinum neurotoxin A by blocking host receptor binding. Scientific Reports, 2017, 7, 7438.	1.6	16
46	The hypothetical protein P47 of Clostridium botulinum E1 strain Beluga has a structural topology similar to bactericidal/permeability-increasing protein. Toxicon, 2018, 147, 19-26.	0.8	16
47	Botulinum neurotoxin serotype D â€“ A potential treatment alternative for BoNT/A and B non-responding patients. Clinical Neurophysiology, 2019, 130, 1066-1073.	0.7	13
48	Human mast cell line-1 (HMC-1) cells exhibit a membrane capacitance increase when dialysed with high free-Ca2+ and GTPÎ³S containing intracellular solution. European Journal of Pharmacology, 2013, 720, 227-236.	1.7	12
49	Structural and biochemical characterization of the protease domain of the mosaic botulinum neurotoxin type HA. Pathogens and Disease, 2018, 76, .	0.8	12
50	Inhibiting oral intoxication of botulinum neurotoxin A complex by carbohydrate receptor mimics. Toxicon, 2015, 107, 43-49.	0.8	10
51	BoNT/AB hybrid maintains similar duration of paresis as BoNT/A wild-type in murine running wheel assay. NeuroToxicology, 2017, 59, 1-8.	1.4	10
52	Preface Biological Toxinsâ€"Ancient Molecules Posing a Current Threat. Toxins, 2015, 7, 5320-5321.	1.5	9
53	Exchanging the minimal cell binding fragments of tetanus neurotoxin in botulinum neurotoxin A and B impacts their toxicity at the neuromuscular junction and central neurons. Toxicon, 2013, 75, 108-121.	0.8	8
54	Construction and validation of safe Clostridium botulinum Group II surrogate strain producing inactive botulinum neurotoxin type E toxoid. Scientific Reports, 2022, 12, 1790.	1.6	8

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55	Botulinum Neurotoxin F Subtypes Cleaving the VAMP-2 Q58â€“K59 Peptide Bond Exhibit Unique Catalytic Properties and Substrate Specificities. Toxins, 2018, 10, 311.	1.5	6
56	The 25 kDa HCN Domain of Clostridial Neurotoxins Is Indispensable for Their Neurotoxicity. Toxins, 2020, 12, 743.	1.5	5
57	Human-Relevant Sensitivity of iPSC-Derived Human Motor Neurons to BoNT/A1 and B1. Toxins, 2021, 13, 585.	1.5	5
58	Innovative and Highly Sensitive Detection of Clostridium perfringens Enterotoxin Based on Receptor Interaction and Monoclonal Antibodies. Toxins, 2021, 13, 266.	1.5	4
59	Clostridium difficile toxin B inhibits the secretory response of human mast cell line-1 (HMC-1) cells stimulated with high free-Ca2+ and GTPÎ³S. Toxicology, 2015, 328, 48-56.	2.0	3
60	Optimization of SNAP-25 and VAMP-2 Cleavage by Botulinum Neurotoxin Serotypes Aâ€“F Employing Taguchi Design-of-Experiments. Toxins, 2019, 11, 588.	1.5	1
61	The Dual-Receptor Recognition of Botulinum Neurotoxins. , 2014, , 129-150.		0