Alexandre Chenal

List of Publications by Year
in descending order

86 papers	2,451 citations	159525 30 h-index	223716 46 g-index
93 all docs	93 docs citations	93 times ranked	2400 citing authors

#	Article	IF	Citations
1	A Highâ€Affinity Calmodulinâ€Binding Site in the CyaA Toxin Translocation Domain is Essential for Invasion of Eukaryotic Cells. Advanced Science, 2021, 8, 2003630.	5.6	14
2	Development of Conformational Antibodies to Detect Bcl-xLâ€™s Amyloid Aggregates in Metal-Induced Apoptotic Neuroblastoma Cells. International Journal of Molecular Sciences, 2020, 21, 7625.	1.8	3
3	Dissecting the Structural and Chemical Determinants of the â€œOpen-to-Closedâ€•Motion in the Mannosyltransferase PimA from Mycobacteria. Biochemistry, 2020, 59, 2934-2945.	1.2	5
4	Functional and structural consequences of epithelial cell invasion by Bordetella pertussis adenylate cyclase toxin. PLoS ONE, 2020, 15, e0228606.	1.1	9
5	Essential dynamic interdependence of FtsZ and SepF for Z-ring and septum formation in Corynebacterium glutamicum. Nature Communications, 2020, 11, 1641.	5.8	29
6	Hydrogen/Deuterium Exchange Mass Spectrometry for the Structural Analysis of Detergent-Solubilized Membrane Proteins. Methods in Molecular Biology, 2020, 2127, 339-358.	0.4	8
7	Title is missing!. , 2020, 15, e0228606.		0
8	Title is missing!. , 2020, 15, e0228606.		0
9	Title is missing!. , 2020, 15, e0228606.		0
10	Title is missing!. , 2020, 15, e0228606.		0
11	Postâ€translational acylation controls the folding and functions of the CyaA RTX toxin. FASEB Journal, 2019, 33, 10065-10076.	0.2	22
12	Conformational Disorder is Required for Toxin Secretion, Folding and Cell Intoxication. Biophysical Journal, 2019, 116, 45a.	0.2	0
13	The Adenylate Cyclase (CyaA) Toxin from Bordetella pertussis Has No Detectable Phospholipase A (PLA) Activity In Vitro. Toxins, 2019, 11, 111.	1.5	3
14	Structural Disorder in Action in a Bacterial Toxin: Secretion, Folding and Host Cell Hijacking. Biophysical Journal, 2018, 114, 428a.	0.2	0
15	Calcium-dependent disorder-to-order transitions are central to the secretion and folding of the CyaA toxin of Bordetella pertussis, the causative agent of whooping cough. Toxicon, 2018, 149, 37-44.	0.8	29
16	Arginine Contributions to the Membrane-Active Properties of an Amphitropic Peptide from the CyaA Toxin Translocation Region. Biophysical Journal, 2018, 114, 263a.	0.2	0
17	SECâ€SAXS and HDXâ€MS: A powerful combination. The case of the calciumâ€binding domain of a bacterial toxin. Biotechnology and Applied Biochemistry, 2018, 65, 62-68.	1.4	21
18	An Introduction to the Toxins Special Issue on the Adenylate Cyclase Toxin. Toxins, 2018, 10, 386.	1.5	1

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19	Translocation and calmodulin-activation of the adenylate cyclase toxin (CyaA) ofBordetella pertussis. Pathogens and Disease, 2018, 76, .	0.8	11
20	Tryptophan Tight Binding to Gold Nanoparticles Induces Drastic Changes in Indole Ring Raman Markers. Journal of Physical Chemistry C, 2018, 122, 13034-13046.	1.5	17
21	Bioengineering of Bordetella pertussis Adenylate Cyclase Toxin for Antigen-Delivery and Immunotherapy. Toxins, 2018, 10, 302.	1.5	15
22	Calcium Tightly Regulates Disorder-To-Order Transitions Involved in the Secretion, Folding and Functions of the CyaA Toxin of Bordetella Pertussis, the Causative Agent of Whooping Cough. Biophysical Journal, 2017, 112, 523a.	0.2	1
23	Stability, structural and functional properties of a monomeric, calciumâ€“loaded adenylate cyclase toxin, CyaA, from Bordetella pertussis. Scientific Reports, 2017, 7, 42065.	1.6	38
24	Exposure to Bordetella pertussis adenylate cyclase toxin affects integrinâ€mediated adhesion and mechanics in alveolar epithelial cells. Biology of the Cell, 2017, 109, 293-311.	0.7	9
25	Bacterial kinesin light chain (Bklc) links the Btub cytoskeleton to membranes. Scientific Reports, 2017, 7, 45668.	1.6	7
26	Synthesis and characterization of tethered lipid assemblies for membrane protein reconstitution (Review). Biointerphases, 2017, 12, 04E301.	0.6	14
27	Large size citrateâ€reduced gold colloids appear as optimal SERS substrates for cationic peptides. Journal of Raman Spectroscopy, 2017, 48, 30-37.	1.2	11
28	Structural disorder and induced folding within two cereal, ABA stress and ripening (ASR) proteins. Scientific Reports, 2017, 7, 15544.	1.6	47
29	Membrane-Active Properties of an Amphitropic Peptide from the CyaA Toxin Translocation Region. Toxins, 2017, 9, 369.	1.5	22
30	Calmodulin fishing with a structurally disordered bait triggers CyaA catalysis. PLoS Biology, 2017, 15, e2004486.	2.6	31
31	The Tip of the Four N-Terminal Î±-Helices of Clostridium sordellii Lethal Toxin Contains the Interaction Site with Membrane Phosphatidylserine Facilitating Small GTPases Glucosylation. Toxins, 2016, 8, 90.	1.5	15
32	Structural Models of an Intrinsically Disordered Protein Adapted for Bacterial Secretion. Biophysical Journal, 2016, 110, 555a.	0.2	0
33	Molecular Basis of Membrane Association by the Phosphatidylinositol Mannosyltransferase PimA Enzyme from Mycobacteria. Journal of Biological Chemistry, 2016, 291, 13955-13963.	1.6	16
34	From bulk to plasmonic nanoparticle surfaces: the behavior of two potent therapeutic peptides, octreotide and pasireotide. Physical Chemistry Chemical Physics, 2016, 18, 24437-24450.	1.3	9
35	MEMHDX: an interactive tool to expedite the statistical validation and visualization of large HDX-MS datasets. Bioinformatics, 2016, 32, 3413-3419.	1.8	52
36	Bee venom phospholipase A2 as a membrane-binding vector for cell surface display or internalization of soluble proteins. Toxicon, 2016, 116, 56-62.	0.8	1

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37	The Translocation Domain of Botulinum Neurotoxin A Moderates the Propensity of the Catalytic Domain to Interact with Membranes at Acidic pH. PLoS ONE, 2016, 11, e0153401.	1.1	13
38	Deciphering Protein Membrane Interactions Involved in the Translocation Process of a Bacterial Toxin, the Adenylate Cyclase (CyaA) Toxin from B.ÂPertussis. Biophysical Journal, 2015, 108, 497a.	0.2	0
39	Structural models of intrinsically disordered and calcium-bound folded states of a protein adapted for secretion. Scientific Reports, 2015, 5, 14223.	1.6	46
40	The catalytic domains ofClostridium sordelliilethal toxin and related large clostridial glucosylating toxins specifically recognize the negatively charged phospholipids phosphatidylserine and phosphatidic acid. Cellular Microbiology, 2015, 17, 1477-1493.	1.1	13
41	Structure and function of RTX toxins. , 2015, , 677-718.		13
42	Disorder-to-Order Transition in the CyaA Toxin RTX Domain: Implications for Toxin Secretion. Toxins, 2015, 7, 1-20.	1.5	38
43	Anchoring Sites of Fibrillogenic Peptide Hormone Somatostatin-14 on Plasmonic Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 8273-8279.	1.5	17
44	Secondary structure reshuffling modulates glycosyltransferase function at the membrane. Nature Chemical Biology, 2015, 11, 16-18.	3.9	44
45	Molecular Crowding Effects on the CyaA Toxin RTX Domain: Implication for Toxin Secretion. FASEB Journal, 2015, 29, LB214.	0.2	0
46	Allosteric Activation of Bordetella pertussis Adenylyl Cyclase by Calmodulin. Journal of Biological Chemistry, 2014, 289, 21131-21141.	1.6	18
47	Calcium, Acylation, and Molecular Confinement Favor Folding of Bordetella pertussis Adenylate Cyclase CyaA Toxin into a Monomeric and Cytotoxic Form. Journal of Biological Chemistry, 2014, 289, 30702-30716.	1.6	51
48	Voltage- and Calcium-Dependent Toxin Translocation Across a Tethered Lipid Bilayer. Biophysical Journal, 2014, 106, 18a.	0.2	0
49	Molecular Crowding Stabilizes Both the Intrinsically Disordered Calcium-Free State and the Folded Calcium-Bound State of an RTX Protein: Implication for Toxin Secretion. Biophysical Journal, 2014, 106, 271a.	0.2	0
50	Interfering with the Host-Pathogen Interaction of Bordetella Pertussis. Biophysical Journal, 2013, 104, 225a-226a.	0.2	0
51	Bordetella pertussis adenylate cyclase toxin translocation across a tethered lipid bilayer. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 20473-20478.	3.3	45
52	Characterization of a Membrane-active Peptide from the Bordetella pertussis CyaA Toxin. Journal of Biological Chemistry, 2013, 288, 32585-32598.	1.6	48
53	Molecular Crowding Stabilizes Both the Intrinsically Disordered Calcium-Free State and the Folded Calcium-Bound State of a Repeat in Toxin (RTX) Protein. Journal of the American Chemical Society, 2013, 135, 11929-11934.	6.6	40
54	Identification of a Region That Assists Membrane Insertion and Translocation of the Catalytic Domain of Bordetella pertussis CyaA Toxin. Journal of Biological Chemistry, 2012, 287, 9200-9212.	1.6	52

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55	Estimation of Intrinsically Disordered Protein Shape and Time-Averaged Apparent Hydration in Native Conditions by a Combination of Hydrodynamic Methods. Methods in Molecular Biology, 2012, 896, 163-177.	0.4	9
56	Mean Net Charge of Intrinsically Disordered Proteins: Experimental Determination of Protein Valence by Electrophoretic Mobility Measurements. , 2012, 896, 331-349.		14
57	Amyloid Fibrils Formed by the Programmed Cell Death Regulator Bcl-xL. Journal of Molecular Biology, 2012, 415, 584-599.	2.0	8
58	Calcium-induced Folding of Intrinsically Disordered Repeat-in-Toxin (RTX) Motifs via Changes of Protein Charges and Oligomerization States. Journal of Biological Chemistry, 2011, 286, 16997-17004.	1.6	46
59	Calcium-Induced Folding and Stabilization of the Intrinsically Disordered RTX Domain of the CyaA Toxin. Biophysical Journal, 2010, 99, 3744-3753.	0.2	64
60	Calmodulin-Induced Conformational and Hydrodynamic Changes in the Catalytic Domain of Bordetella pertussis Adenylate Cyclase Toxin. Biochemistry, 2010, 49, 318-328.	1.2	49
61	Characterization of the Regions Involved in the Calcium-Induced Folding of the Intrinsically Disordered RTX Motifs from the Bordetella pertussis Adenylate Cyclase Toxin. Journal of Molecular Biology, 2010, 397, 534-549.	2.0	61
62	Clostridium septicum alpha-toxin forms pores and induces rapid cell necrosis. Toxicon, 2010, 55, 61-72.	0.8	59
63	RTX Calcium Binding Motifs Are Intrinsically Disordered in the Absence of Calcium. Journal of Biological Chemistry, 2009, 284, 1781-1789.	1.6	123
64	Cellular Functions and X-ray Structure of Anthrolysin O, a Cholesterol-dependent Cytolysin Secreted by Bacillus anthracis. Journal of Biological Chemistry, 2009, 284, 14645-14656.	1.6	86
65	Alteration of the tertiary structure of the major bee venom allergen Api m 1 by multiple mutations is concomitant with low IgE reactivity. Protein Science, 2009, 13, 2970-2978.	3.1	22
66	Deciphering Membrane Insertion of the Diphtheria Toxin T Domain by Specular Neutron Reflectometry and Solid-State NMR Spectroscopy. Journal of Molecular Biology, 2009, 391, 872-883.	2.0	54
67	Side Chain Resonances in Static Oriented Proton-Decoupled ¹⁵N Solid-State NMR Spectra of Membrane Proteins. Journal of the American Chemical Society, 2009, 131, 6340-6341.	6.6	12
68	Membrane Interaction of Botulinum Neurotoxin A Translocation (T) Domain. Journal of Biological Chemistry, 2008, 283, 27668-27676.	1.6	55
69	Concerted Protonation of Key Histidines Triggers Membrane Interaction of the Diphtheria Toxin T Domain. Journal of Biological Chemistry, 2007, 282, 24239-24245.	1.6	59
70	Type III Secretion Effectors of the IpaH Family Are E3 Ubiquitin Ligases. Cell Host and Microbe, 2007, 1, 77-83.	5.1	271
71	Defining the Interacting Regions between Apomyoglobin and Lipid Membrane by Hydrogen/Deuterium Exchange Coupled to Mass Spectrometry. Journal of Molecular Biology, 2007, 368, 464-472.	2.0	45
72	Behavior of the N-Terminal Helices of the Diphtheria Toxin T Domain during the Successive Steps of Membrane Interaction. Biochemistry, 2007, 46, 1878-1887.	1.2	38

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73	Interactions of apomyoglobin with membranes: Mechanisms and effects on heme uptake. Protein Science, 2007, 16, 391-400.	3.1	14
74	Engineering of bacterial toxins for research and medicine. , 2006, , 991-1007.		3
75	Structural and Functional Characterization of an Essential RTX Subdomain of Bordetella pertussis Adenylate Cyclase Toxin. Journal of Biological Chemistry, 2006, 281, 16914-16926.	1.6	91
76	Characterization of Wild-Type Recombinant Bet v 1a as a Candidate Vaccine against Birch Pollen Allergy. International Archives of Allergy and Immunology, 2005, 136, 239-249.	0.9	45
77	Conformational States and Thermodynamics of Î±-Lactalbumin Bound to Membranes: A Case Study of the Effects of pH, Calcium, Lipid Membrane Curvature and Charge. Journal of Molecular Biology, 2005, 349, 890-905.	2.0	46
78	Interaction between the two subdomains of the C-terminal part of the botulinum neurotoxin A is essential for the generation of protective antibodies. FEBS Letters, 2004, 572, 299-306.	1.3	66
79	Anchoring cytokines to tumor cells for the preparation of anticancer vaccines without gene transfection in mice. Journal of Immunotherapy, 2003, 26, 63-71.	1.2	17
80	STRUCTURE AND FUNCTION OF DIPHTHERIA TOXIN: FROM PATHOLOGY TO ENGINEERING. Toxin Reviews, 2002, 21, 321-359.	1.5	27
81	Does fusion of domains from unrelated proteins affect their folding pathways and the structural changes involved in their function? A case study with the diphtheria toxin T domain. Protein Engineering, Design and Selection, 2002, 15, 383-391.	1.0	27
82	Clostridium perfringens Iota Toxin. Journal of Biological Chemistry, 2002, 277, 43659-43666.	1.6	39
83	‹title›Novel cancer vaccines prepared by anchoring cytokines to tumor cells avoiding gene transfection‹/title›. , 2002, 4625, 118.		1
84	Membrane Protein Insertion Regulated by Bringing Electrostatic and Hydrophobic Interactions into Play. Journal of Biological Chemistry, 2002, 277, 43425-43432.	1.6	75
85	Ancrer des cytokines aux cellules cancÃ©reuses Ã lâ€™aide de la toxine diphtÃ©rique : mieux que lâ€™immunothÃ©rapie par transfert de gÃ¨ne ?. SociÃ©tÃ© De Biologie Journal, 2001, 195, 229-234.	0.3	2
86	Prolonged display or rapid internalization of the IgG-binding protein ZZ anchored to the surface of cells using the diphtheria toxin T domain. Protein Engineering, Design and Selection, 2001, 14, 439-446.	1.0	22