

# Jean Baum

## List of Publications by Year in descending order

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58  
papers

2,020  
citations

257450

24  
h-index

254184

43  
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61  
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61  
docs citations

61  
times ranked

2515  
citing authors

#	ARTICLE	IF	CITATIONS
1	Structural Reorganization of $\alpha$ -Synuclein at Low pH Observed by NMR and REMD Simulations. <i>Journal of Molecular Biology</i> , 2009, 391, 784-796.	4.2	170
2	N-terminal acetylation of $\alpha$ -synuclein induces increased transient helical propensity and decreased aggregation rates in the intrinsically disordered monomer. <i>Protein Science</i> , 2012, 21, 911-917.	7.6	161
3	Characterization of Conformational and Dynamic Properties of Natively Unfolded Human and Mouse $\alpha$ -Synuclein Ensembles by NMR: Implication for Aggregation. <i>Journal of Molecular Biology</i> , 2008, 378, 1104-1115.	4.2	112
4	Solution structure of a de novo protein from a designed combinatorial library. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 13270-13273.	7.1	107
5	Synthesis and Nuclear Magnetic Resonance Structure Determination of an $\alpha$ -Helical, Bicyclic, Lactam-Bridged Hexapeptide. <i>Journal of the American Chemical Society</i> , 1994, 116, 6431-6432.	13.7	96
6	Detection of Transient Interchain Interactions in the Intrinsically Disordered Protein $\alpha$ -Synuclein by NMR Paramagnetic Relaxation Enhancement. <i>Journal of the American Chemical Society</i> , 2010, 132, 5546-5547.	13.7	93
7	A Revised Picture of the Cu(II)- $\alpha$ -Synuclein Complex: The Role of N-Terminal Acetylation. <i>Biochemistry</i> , 2014, 53, 2815-2817.	2.5	71
8	Backbone dynamics of the natively unfolded pro-peptide of subtilisin by heteronuclear NMR relaxation studies. <i>Journal of Biomolecular NMR</i> , 2001, 20, 233-249.	2.8	68
9	NMR and CD studies of triple-helical peptides. <i>Biopolymers</i> , 1992, 32, 447-451.	2.4	61
10	Site-Specific NMR Monitoring of cis $\rightarrow$ trans Isomerization in the Folding of the Proline-Rich Collagen Triple Helix. <i>Biochemistry</i> , 2000, 39, 4299-4308.	2.5	57
11	Nuclear Magnetic Resonance Shows Asymmetric Loss of Triple Helix in Peptides Modeling a Collagen Mutation in Brittle Bone Disease. <i>Biochemistry</i> , 1998, 37, 15528-15533.	2.5	56
12	Dynamics of Unfolded Proteins: Incorporation of Distributions of Correlation Times in the Model Free Analysis of NMR Relaxation Data. <i>Journal of the American Chemical Society</i> , 1999, 121, 8671-8672.	13.7	55
13	Unveiling transient protein-protein interactions that modulate inhibition of alpha-synuclein aggregation by beta-synuclein, a pre-synaptic protein that co-localizes with alpha-synuclein. <i>Scientific Reports</i> , 2015, 5, 15164.	3.3	53
14	<sup>1</sup> H-NMR assignments and local environments of aromatic residues in bovine, human and guinea pig variants of alpha-lactalbumin. <i>FEBS Journal</i> , 1992, 210, 699-709.	0.2	51
15	Structure and dynamics of de novo proteins from a designed superfamily of 4-helix bundles. <i>Protein Science</i> , 2008, 17, 821-832.	7.6	48
16	The A53T Mutation is Key in Defining the Differences in the Aggregation Kinetics of Human and Mouse $\alpha$ -Synuclein. <i>Journal of the American Chemical Society</i> , 2011, 133, 13465-13470.	13.7	45
17	Mechanistic Insight into the Relationship between N-Terminal Acetylation of $\alpha$ -Synuclein and Fibril Formation Rates by NMR and Fluorescence. <i>PLoS ONE</i> , 2013, 8, e75018.	2.5	43
18	PET-RAFT and SAXS: High Throughput Tools To Study Compactness and Flexibility of Single-Chain Polymer Nanoparticles. <i>Macromolecules</i> , 2019, 52, 8295-8304.	4.8	43

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19	A pH-dependent switch promotes $\beta^2$ -synuclein fibril formation via glutamate residues. <i>Journal of Biological Chemistry</i> , 2017, 292, 16368-16379.	3.4	41
20	Conformational Features of a Natural Break in the Type IV Collagen Gly-X-Y Repeat. <i>Journal of Biological Chemistry</i> , 2006, 281, 17197-17202.	3.4	37
21	Investigation of the Polymeric Properties of $\beta^2$ -Synuclein and Comparison with NMR Experiments: A Replica Exchange Molecular Dynamics Study. <i>Journal of Chemical Theory and Computation</i> , 2012, 8, 3929-3942.	5.3	31
22	Evolution of the $\beta^2$ proteome in three dimensions (3D) during the first 6 months of the COVID-19 pandemic. <i>Proteins: Structure, Function and Bioinformatics</i> , 2022, 90, 1054-1080.	2.6	31
23	Molecular dynamics analysis of a flexible loop at the binding interface of the $\beta^2$ spike protein receptor-binding domain. <i>Proteins: Structure, Function and Bioinformatics</i> , 2022, 90, 1044-1053.	2.6	30
24	Exploring the accessible conformations of N-terminal acetylated $\beta^2$ -synuclein. <i>FEBS Letters</i> , 2013, 587, 1128-1138.	2.8	29
25	NMR unveils an N-terminal interaction interface on acetylated- $\beta^2$ -synuclein monomers for recruitment to fibrils. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	29
26	Dynamic Water-Mediated Hydrogen Bonding in a Collagen Model Peptide. <i>Biochemistry</i> , 2015, 54, 6029-6037.	2.5	26
27	Antioxidant Nanoparticles for Concerted Inhibition of $\beta^2$ -Synuclein Fibrillization, and Attenuation of Microglial Intracellular Aggregation and Activation. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 112.	4.1	26
28	Cryptic binding sites become accessible through surface reconstruction of the type I collagen fibril. <i>Scientific Reports</i> , 2018, 8, 16646.	3.3	23
29	Electrostatic interactions in the acid denaturation of $\beta^2$ -lactalbumin determined by nmr. <i>Protein Science</i> , 1998, 7, 1930-1938.	7.6	22
30	Multi-Pronged Interactions Underlie Inhibition of $\beta^2$ -Synuclein Aggregation by $\beta^2$ -Synuclein. <i>Journal of Molecular Biology</i> , 2018, 430, 2360-2371.	4.2	22
31	Nuclear magnetic resonance characterization of peptide models of collagen "folding diseases. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2001, 356, 159-168.	4.0	21
32	Revealing Accessibility of Cryptic Protein Binding Sites within the Functional Collagen Fibril. <i>Biomolecules</i> , 2017, 7, 76.	4.0	21
33	NMR Studies Demonstrate a Unique AAB Composition and Chain Register for a Heterotrimeric Type IV Collagen Model Peptide Containing a Natural Interruption Site. <i>Journal of Biological Chemistry</i> , 2015, 290, 24201-24209.	3.4	19
34	Polymer brain-nanotherapeutics for multipronged inhibition of microglial $\beta^2$ -synuclein aggregation, activation, and neurotoxicity. <i>Biomaterials</i> , 2016, 111, 179-189.	11.4	19
35	Extracellular matrix components modulate different stages in $\beta^2$ -microglobulin amyloid formation. <i>Journal of Biological Chemistry</i> , 2019, 294, 9392-9401.	3.4	19
36	Fast hydrogen exchange affects $^{15}\text{N}$ relaxation measurements in intrinsically disordered proteins. <i>Journal of Biomolecular NMR</i> , 2013, 55, 249-256.	2.8	18

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37	Increased Dynamics of $\beta$ -Synuclein Fibrils by $\alpha$ -Synuclein Leads to Reduced Seeding and Cytotoxicity. <i>Scientific Reports</i> , 2019, 9, 17579.	3.3	17
38	Interactions between the Intrinsically Disordered Proteins $\alpha$ -Synuclein and $\beta$ -Synuclein. <i>Proteomics</i> , 2018, 18, e1800109.	2.2	16
39	Magnesium Activates Microsecond Dynamics to Regulate Integrin-Collagen Recognition. <i>Structure</i> , 2018, 26, 1080-1090.e5.	3.3	15
40	Collagen I Weakly Interacts with the $\beta$ -Sheets of $\alpha$ -Microglobulin and Enhances Conformational Exchange To Induce Amyloid Formation. <i>Journal of the American Chemical Society</i> , 2020, 142, 1321-1331.	13.7	15
41	Local amino acid sequence patterns dominate the heterogeneous phenotype for the collagen connective tissue disease <i>Osteogenesis Imperfecta</i> resulting from Gly mutations. <i>Journal of Structural Biology</i> , 2015, 192, 127-137.	2.8	14
42	Backbone assignment and dynamics of human $\beta$ -synuclein in viscous 2M glucose solution. <i>Biomolecular NMR Assignments</i> , 2011, 5, 43-46.	0.8	13
43	The loss of inhibitory C-terminal conformations in disease associated P123H $\alpha$ -synuclein. <i>Protein Science</i> , 2016, 25, 286-294.	7.6	13
44	Identification of Partially Disordered Peptide Intermediates through Residue-Specific NMR Diffusion Measurements. <i>Journal of the American Chemical Society</i> , 2005, 127, 10490-10491.	13.7	12
45	Apoptosis signal regulating kinase 1 deletion mitigates $\beta$ -synuclein pre-formed fibril propagation in mice. <i>Neurobiology of Aging</i> , 2020, 85, 49-57.	3.1	9
46	DJ-1 Acts as a Scavenger of $\beta$ -Synuclein Oligomers and Restores Monomeric Glycated $\beta$ -Synuclein. <i>Biomolecules</i> , 2021, 11, 1466.	4.0	8
47	Intermolecular Paramagnetic Relaxation Enhancement (PRE) Studies of Transient Complexes in Intrinsically Disordered Proteins. <i>Methods in Molecular Biology</i> , 2016, 1345, 45-53.	0.9	7
48	<sup>1</sup> H, <sup>13</sup> C and <sup>15</sup> N resonance assignments of S-824, a de novo four-helix bundle from a designed combinatorial library. <i>Journal of Biomolecular NMR</i> , 2003, 27, 395-396.	2.8	5
49	Intrinsic local destabilization of the C-terminus predisposes integrin $\beta$ 1 I domain to a conformational switch induced by collagen binding. <i>Protein Science</i> , 2016, 25, 1672-1681.	7.6	4
50	Crystal structure and nmr conformation of a cyclic pseudotetrapeptide containing urethane backbone linkages. <i>Biopolymers</i> , 1994, 34, 403-414.	2.4	3
51	Tertiary Contacts in $\alpha$ -Lactalbumin at pH 7 and pH 2: A Molecular Dynamics Study. <i>Journal of Biomolecular Structure and Dynamics</i> , 1998, 16, 355-365.	3.5	3
52	Structural Insights into the Glycine Pair Motifs in Type III Collagen. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 269-278.	5.2	3
53	Mimicking cotranslational folding of prosubtilisin E in vitro. <i>Journal of Biochemistry</i> , 2020, 167, 473-482.	1.7	3
54	NMR assignment of S836: a de novo protein from a designed superfamily. <i>Biomolecular NMR Assignments</i> , 2007, 1, 213-215.	0.8	2

#	ARTICLE	IF	CITATIONS
55	Protein Aggregation. Protein Science, 2018, 27, 1149-1150.	7.6	2
56	Molecular underpinnings of integrin binding to collagen-mimetic peptides containing vascular Ehlersâ€“Danlos syndromeâ€“associated substitutions. Journal of Biological Chemistry, 2019, 294, 14442-14453.	3.4	1
57	The 2021 FASEB Virtual Science Research Conference on Protein Aggregation: Function, Dysfunction, and Disease, June 23â€“25, 2021. FASEB Journal, 2021, 35, e21884.	0.5	0
58	NMR structure determination and DNA binding properties of GCN4 peptidomimetics designed for Î±-helix initiation and stabilization. , 2002, , 463-464.		0