

# Janet R Kumita

## List of Publications by Year in descending order

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75  
papers

4,797  
citations

94269

37  
h-index

98622

67  
g-index

77  
all docs

77  
docs citations

77  
times ranked

6568  
citing authors

#	ARTICLE	IF	CITATIONS
1	Intercellular propagated misfolding of wild-type Cu/Zn superoxide dismutase occurs via exosome-dependent and -independent mechanisms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 3620-3625.	3.3	373
2	A prion-like domain in ELF3 functions as a thermosensor in Arabidopsis. <i>Nature</i> , 2020, 585, 256-260.	13.7	337
3	ANS Binding Reveals Common Features of Cytotoxic Amyloid Species. <i>ACS Chemical Biology</i> , 2010, 5, 735-740.	1.6	335
4	The extracellular chaperone clusterin influences amyloid formation and toxicity by interacting with prefibrillar structures. <i>FASEB Journal</i> , 2007, 21, 2312-2322.	0.2	285
5	Å-Helix formation in a photoswitchable peptide tracked from picoseconds to microseconds by time-resolved IR spectroscopy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 2379-2384.	3.3	186
6	Cholesterol catalyses A $\beta$ 242 aggregation through a heterogeneous nucleation pathway in the presence of lipid membranes. <i>Nature Chemistry</i> , 2018, 10, 673-683.	6.6	186
7	Protein amyloids develop an intrinsic fluorescence signature during aggregation. <i>Analyst</i> , 2013, 138, 2156.	1.7	182
8	Systematic development of small molecules to inhibit specific microscopic steps of A $\beta$ 242 aggregation in Alzheimer's disease. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E200-E208.	3.3	180
9	Using an Azobenzene Cross-Linker to Either Increase or Decrease Peptide Helix Content upon Trans-to-Cis Photoisomerization. <i>Chemistry and Biology</i> , 2002, 9, 391-397.	6.2	150
10	Secondary nucleation and elongation occur at different sites on Alzheimer's amyloid- $\beta$ aggregates. <i>Science Advances</i> , 2019, 5, eaau3112.	4.7	127
11	Trodusquemine enhances A $\beta$ 242 aggregation but suppresses its toxicity by displacing oligomers from cell membranes. <i>Nature Communications</i> , 2019, 10, 225.	5.8	111
12	A FRET Sensor for Non-Invasive Imaging of Amyloid Formation in Vivo. <i>ChemPhysChem</i> , 2011, 12, 673-680.	1.0	98
13	Defining I $\pm$ -synuclein species responsible for Parkinson's disease phenotypes in mice. <i>Journal of Biological Chemistry</i> , 2019, 294, 10392-10406.	1.6	96
14	The Non-Core Regions of Human Lysozyme Amyloid Fibrils Influence Cytotoxicity. <i>Journal of Molecular Biology</i> , 2010, 402, 783-796.	2.0	95
15	Normal and Aberrant Biological Self-Assembly: Insights from Studies of Human Lysozyme and Its Amyloidogenic Variants. <i>Accounts of Chemical Research</i> , 2006, 39, 603-610.	7.6	92
16	Molecular determinants of the aggregation behavior of I $\pm$ - and I $\beta$ -synuclein. <i>Protein Science</i> , 2008, 17, 887-898.	3.1	91
17	Multistep Inhibition of I $\pm$ -Synuclein Aggregation and Toxicity <i>in Vitro</i> and <i>in Vivo</i> by Trodusquemine. <i>ACS Chemical Biology</i> , 2018, 13, 2308-2319.	1.6	86
18	A Water-Soluble Azobenzene Cross-Linker for Photocontrol of Peptide Conformation. <i>Bioconjugate Chemistry</i> , 2003, 14, 824-829.	1.8	85

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19	Î±2-Macroglobulin and Haptoglobin Suppress Amyloid Formation by Interacting with Prefibrillar Protein Species. <i>Journal of Biological Chemistry</i> , 2009, 284, 4246-4254.	1.6	85
20	The Extracellular Chaperone Clusterin Potently Inhibits Human Lysozyme Amyloid Formation by Interacting with Prefibrillar Species. <i>Journal of Molecular Biology</i> , 2007, 369, 157-167.	2.0	84
21	Towards Multiparametric Fluorescent Imaging of Amyloid Formation: Studies of a YFP Model of Î±-Synuclein Aggregation. <i>Journal of Molecular Biology</i> , 2010, 395, 627-642.	2.0	72
22	Population of Nonnative States of Lysozyme Variants Drives Amyloid Fibril Formation. <i>Journal of the American Chemical Society</i> , 2011, 133, 7737-7743.	6.6	72
23	Engineering a Camelid Antibody Fragment That Binds to the Active Site of Human Lysozyme and Inhibits Its Conversion into Amyloid Fibrils. <i>Biochemistry</i> , 2008, 47, 11041-11054.	1.2	66
24	The Kinetics of Helix Unfolding of an Azobenzene Cross-Linked Peptide Probed by Nanosecond Time-Resolved Optical Rotatory Dispersion. <i>Journal of the American Chemical Society</i> , 2003, 125, 12443-12449.	6.6	64
25	Hypochlorite-induced structural modifications enhance the chaperone activity of human Î± <sub>2</sub> -macroglobulin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, E2081-90.	3.3	61
26	Single-Molecule Characterization of the Interactions between Extracellular Chaperones and Toxic Î±-Synuclein Oligomers. <i>Cell Reports</i> , 2018, 23, 3492-3500.	2.9	59
27	The Influence of Pathogenic Mutations in Î±-Synuclein on Biophysical and Structural Characteristics of Amyloid Fibrils. <i>ACS Nano</i> , 2020, 14, 5213-5222.	7.3	58
28	Local Cooperativity in an Amyloidogenic State of Human Lysozyme Observed at Atomic Resolution. <i>Journal of the American Chemical Society</i> , 2010, 132, 15580-15588.	6.6	55
29	Human pregnancy zone protein stabilizes misfolded proteins including preeclampsia- and Alzheimer's-associated amyloid beta peptide. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 6101-6110.	3.3	55
30	Disulfide Bonds Reduce the Toxicity of the Amyloid Fibrils Formed by an Extracellular Protein. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 7048-7051.	7.2	53
31	Native-State Stability Determines the Extent of Degradation Relative to Secretion of Protein Variants from <i>Pichia pastoris</i> . <i>PLoS ONE</i> , 2011, 6, e22692.	1.1	47
32	Inhibition of Î±-Synuclein Fibril Elongation by Hsp70 Is Governed by a Kinetic Binding Competition between Î±-Synuclein Species. <i>Biochemistry</i> , 2017, 56, 1177-1180.	1.2	47
33	Clusterin protects neurons against intracellular proteotoxicity. <i>Acta Neuropathologica Communications</i> , 2017, 5, 81.	2.4	47
34	Impact of the native-state stability of human lysozyme variants on protein secretion by <i>Pichia pastoris</i> . <i>FEBS Journal</i> , 2006, 273, 711-720.	2.2	46
35	Different Folding States from the Same Protein Sequence Determine Reversible vs Irreversible Amyloid Fate. <i>Journal of the American Chemical Society</i> , 2021, 143, 11473-11481.	6.6	45
36	Trodusquemine displaces protein misfolded oligomers from cell membranes and abrogates their cytotoxicity through a generic mechanism. <i>Communications Biology</i> , 2020, 3, 435.	2.0	44

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37	Rationalising Lysozyme Amyloidosis: Insights from the Structure and Solution Dynamics of T70N Lysozyme. <i>Journal of Molecular Biology</i> , 2005, 352, 823-836.	2.0	43
38	Protease-activated alpha-2-macroglobulin can inhibit amyloid formation via two distinct mechanisms. <i>FEBS Letters</i> , 2013, 587, 398-403.	1.3	43
39	A Nanobody Binding to Non-Amyloidogenic Regions of the Protein Human Lysozyme Enhances Partial Unfolding but Inhibits Amyloid Fibril Formation. <i>Journal of Physical Chemistry B</i> , 2013, 117, 13245-13258.	1.2	42
40	Squalamine and Its Derivatives Modulate the Aggregation of Amyloid- $\beta$ and $\beta$ -Synuclein and Suppress the Toxicity of Their Oligomers. <i>Frontiers in Neuroscience</i> , 2021, 15, 680026.	1.4	34
41	Flow cytometric measurement of the cellular propagation of TDP-43 aggregation. <i>Prion</i> , 2017, 11, 195-204.	0.9	32
42	The relevance of contact-independent cell-to-cell transfer of TDP-43 and SOD1 in amyotrophic lateral sclerosis. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2017, 1863, 2762-2771.	1.8	29
43	Fabrication and Characterization of Reconstituted Silk Microgels for the Storage and Release of Small Molecules. <i>Macromolecular Rapid Communications</i> , 2019, 40, e1800898.	2.0	29
44	Achieving photo-control of protein conformation and activity: producing a photo-controlled leucine zipper. <i>Faraday Discussions</i> , 2003, 122, 89-103.	1.6	27
45	Analysis of the Native Structure, Stability and Aggregation of Biotinylated Human Lysozyme. <i>PLoS ONE</i> , 2012, 7, e50192.	1.1	27
46	A dopamine metabolite stabilizes neurotoxic amyloid- $\beta$ oligomers. <i>Communications Biology</i> , 2021, 4, 19.	2.0	25
47	Rapid Structural, Kinetic, and Immunochemical Analysis of Alpha-Synuclein Oligomers in Solution. <i>Nano Letters</i> , 2020, 20, 8163-8169.	4.5	24
48	The Significance of the Location of Mutations for the Native-State Dynamics of Human Lysozyme. <i>Biophysical Journal</i> , 2016, 111, 2358-2367.	0.2	20
49	Amyloid-like Fibrils from an $\beta$ -Helical Transmembrane Protein. <i>Biochemistry</i> , 2017, 56, 3225-3233.	1.2	19
50	Chemical and mechanistic analysis of photodynamic inhibition of Alzheimer's $\beta$ -amyloid aggregation. <i>Chemical Communications</i> , 2019, 55, 1152-1155.	2.2	19
51	A non-natural variant of human lysozyme (I59T) mimics the in vitro behaviour of the I56T variant that is responsible for a form of familial amyloidosis. <i>Protein Engineering, Design and Selection</i> , 2010, 23, 499-506.	1.0	17
52	Disease-related amyloidogenic variants of human lysozyme trigger the unfolded protein response and disturb eye development in <i>Drosophila melanogaster</i> . <i>FASEB Journal</i> , 2012, 26, 192-202.	0.2	17
53	Alpha-2-Macroglobulin Is Acutely Sensitive to Freezing and Lyophilization: Implications for Structural and Functional Studies. <i>PLoS ONE</i> , 2015, 10, e0130036.	1.1	17
54	A Cysteine-Free Firefly Luciferase Retains Luminescence Activity. <i>Biochemical and Biophysical Research Communications</i> , 2000, 267, 394-397.	1.0	16

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55	The influence of novel gemini surfactants containing cycloalkyl side-chains on the structural phases of DNA in solution. <i>Colloids and Surfaces B: Biointerfaces</i> , 2015, 131, 83-92.	2.5	16
56	Structure and Dynamics of the Integrin LFA-1 I-Domain in the Inactive State Underlie its Inside-Out/Outside-In Signaling and Allosteric Mechanisms. <i>Structure</i> , 2015, 23, 745-753.	1.6	15
57	Cholesterol-rich naked mole-rat brain lipid membranes are susceptible to amyloid beta-induced damage in vitro. <i>Aging</i> , 2020, 12, 22266-22290.	1.4	15
58	Rationally Designed Antibodies as Research Tools to Study the Structure-Toxicity Relationship of Amyloid- $\beta$ Oligomers. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4542.	1.8	12
59	Comparative Studies in the A30P and A53T $\beta$ -Synuclein <i>C. elegans</i> Strains to Investigate the Molecular Origins of Parkinson's Disease. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 552549.	1.8	12
60	Solvent exposure of Tyr10 as a probe of structural differences between monomeric and aggregated forms of the amyloid- $\beta$ peptide. <i>Biochemical and Biophysical Research Communications</i> , 2015, 468, 696-701.	1.0	11
61	Using Tetracysteine-Tagged TDP-43 with a Biarsenical Dye To Monitor Real-Time Trafficking in a Cell Model of Amyotrophic Lateral Sclerosis. <i>Biochemistry</i> , 2019, 58, 4086-4095.	1.2	9
62	NMR characterization of the conformational fluctuations of the human lymphocyte function-associated antigen-1 $\beta$ -domain. <i>Protein Science</i> , 2014, 23, 1596-1606.	3.1	8
63	Protein Chemistry of Amyloid Fibrils and Chaperones: Implications for Amyloid Formation and Disease. <i>Current Chemical Biology</i> , 2010, 4, 89-98.	0.2	8
64	Engineering mono- and multi-valent inhibitors on a modular scaffold. <i>Chemical Science</i> , 2021, 12, 880-895.	3.7	7
65	Application of Lysine-specific Labeling to Detect Transient Interactions Present During Human Lysozyme Amyloid Fibril Formation. <i>Scientific Reports</i> , 2017, 7, 15018.	1.6	6
66	Mapping pathogenic processes contributing to neurodegeneration in <i>Drosophila</i> models of Alzheimer's disease. <i>FEBS Open Bio</i> , 2020, 10, 338-350.	1.0	6
67	Exogenous misfolded protein oligomers can cross the intestinal barrier and cause a disease phenotype in <i>C. elegans</i> . <i>Scientific Reports</i> , 2021, 11, 14391.	1.6	6
68	The Pathological G51D Mutation in Alpha-Synuclein Oligomers Confers Distinct Structural Attributes and Cellular Toxicity. <i>Molecules</i> , 2022, 27, 1293.	1.7	6
69	Characterisation of the structural, dynamic and aggregation properties of the W64R amyloidogenic variant of human lysozyme. <i>Biophysical Chemistry</i> , 2021, 271, 106563.	1.5	5
70	Probing the unfolded protein response in long-lived naked mole-rats. <i>Biochemical and Biophysical Research Communications</i> , 2020, 529, 1151-1157.	1.0	3
71	Structural Characterization of Covalently Stabilized Human Cystatin C Oligomers. <i>International Journal of Molecular Sciences</i> , 2020, 21, 5860.	1.8	3
72	Serum amyloid P component promotes formation of distinct aggregated lysozyme morphologies and reduces toxicity in <i>Drosophila</i> flies expressing F57I lysozyme. <i>PLoS ONE</i> , 2020, 15, e0227227.	1.1	3

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73	Structural Studies of the Oligomerization Process of Human Cystatin C Variants. Biophysical Journal, 2016, 110, 26a.	0.2	0
74	Homage to Chris Dobson. Frontiers in Molecular Biosciences, 2019, 6, 137.	1.6	0
75	Correction: Defining $\beta$ -synuclein species responsible for Parkinson's disease phenotypes in mice.. Journal of Biological Chemistry, 2020, 295, 1142.	1.6	0