

Avijit Chakrabartty

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

91
papers

6,715
citations

40
h-index

81
g-index

96
ext. papers

7,209
ext. citations

7.8
avg, IF

5.55
L-index

| # | Paper | IF | Citations |
|----|--|------|-----------|
| 91 | Physiologically Important Electrolytes as Regulators of TDP-43 Aggregation and Droplet-Phase Behavior. <i>Biochemistry</i> , 2019 , 58, 590-607 | 3.2 | 12 |
| 90 | Phase to Phase with TDP-43. <i>Biochemistry</i> , 2017 , 56, 809-823 | 3.2 | 47 |
| 89 | Transthyretin amyloidosis: an under-recognized neuropathy and cardiomyopathy. <i>Clinical Science</i> , 2017 , 131, 395-409 | 6.5 | 50 |
| 88 | Interplay of buried histidine protonation and protein stability in prion misfolding. <i>Scientific Reports</i> , 2017 , 7, 882 | 4.9 | 14 |
| 87 | Quercitrin and quercetin 3- β -D-glucoside as chemical chaperones for the A4V SOD1 ALS-causing mutant. <i>Protein Engineering, Design and Selection</i> , 2017 , 30, 431-440 | 1.9 | 22 |
| 86 | Simple Elimination of Background Fluorescence in Formalin-Fixed Human Brain Tissue for Immunofluorescence Microscopy. <i>Journal of Visualized Experiments</i> , 2017 , | 1.6 | 14 |
| 85 | Somatostatin binds to the human amyloid β peptide and favors the formation of distinct oligomers. <i>ELife</i> , 2017 , 6, | 8.9 | 21 |
| 84 | Cost-effective elimination of lipofuscin fluorescence from formalin-fixed brain tissue by white phosphor light emitting diode array. <i>Biochemistry and Cell Biology</i> , 2016 , 94, 545-550 | 3.6 | 8 |
| 83 | Structural and functional characterization of KEOPS dimerization by Pcc1 and its role in t6A biosynthesis. <i>Nucleic Acids Research</i> , 2016 , 44, 6971-80 | 20.1 | 17 |
| 82 | Novel conformation-specific monoclonal antibodies against amyloidogenic forms of transthyretin. <i>Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis</i> , 2016 , 23, 86-97 | 2.7 | 54 |
| 81 | Electrostatic Repulsion Governs TDP-43 C-terminal Domain Aggregation. <i>PLoS Biology</i> , 2016 , 14, e1002447 | 4.7 | 23 |
| 80 | Substoichiometric inhibition of transthyretin misfolding by immune-targeting sparsely populated misfolding intermediates: a potential diagnostic and therapeutic for TTR amyloidoses. <i>Scientific Reports</i> , 2016 , 6, 25080 | 4.9 | 22 |
| 79 | Low molecular weight species of TDP-43 generated by abnormal splicing form inclusions in amyotrophic lateral sclerosis and result in motor neuron death. <i>Acta Neuropathologica</i> , 2015 , 130, 49-61 | 14.3 | 49 |
| 78 | Determining composition of micron-scale protein deposits in neurodegenerative disease by spatially targeted optical microproteomics. <i>ELife</i> , 2015 , 4, | 8.9 | 23 |
| 77 | Wild-type Cu/Zn superoxide dismutase stabilizes mutant variants by heterodimerization. <i>Neurobiology of Disease</i> , 2014 , 62, 479-88 | 7.5 | 15 |
| 76 | "Structural characterization of the minimal segment of TDP-43 competent for aggregation". <i>Archives of Biochemistry and Biophysics</i> , 2014 , 545, 53-62 | 4.1 | 54 |
| 75 | Binding of TDP-43 to the 3'UTR of its cognate mRNA enhances its solubility. <i>Biochemistry</i> , 2014 , 53, 5885-94 | 3.24 | 24 |

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|----|--|------|-----|
| 74 | Structure of a simplified Hairpin and its ATP complex. <i>Archives of Biochemistry and Biophysics</i> , 2013 , 537, 62-71 | 4.1 | 4 |
| 73 | Protein misfolding in the late-onset neurodegenerative diseases: common themes and the unique case of amyotrophic lateral sclerosis. <i>Proteins: Structure, Function and Bioinformatics</i> , 2013 , 81, 1285-303 | 4.2 | 62 |
| 72 | N-terminal helix-cap in Helix 2 modulates State misfolding in rabbit and hamster prion proteins. <i>PLoS ONE</i> , 2013 , 8, e63047 | 3.7 | 15 |
| 71 | Adaptor protein self-assembly drives the control of a cullin-RING ubiquitin ligase. <i>Structure</i> , 2012 , 20, 1141-53 | 5.2 | 90 |
| 70 | Conformation specificity and arene binding in a peptide composed only of Lys, Ile, Ala and Gly. <i>European Biophysics Journal</i> , 2012 , 41, 63-72 | 1.9 | 4 |
| 69 | An Arg-rich putative prebiotic protein is as stable as its Lys-rich variant. <i>Archives of Biochemistry and Biophysics</i> , 2012 , 528, 118-26 | 4.1 | 6 |
| 68 | Early steps in oxidation-induced SOD1 misfolding: implications for non-amyloid protein aggregation in familial ALS. <i>Journal of Molecular Biology</i> , 2012 , 421, 631-52 | 6.5 | 38 |
| 67 | Analyzing complicated protein folding kinetics rapidly by analytical Laplace inversion using a Tikhonov regularization variant. <i>Analytical Biochemistry</i> , 2012 , 421, 181-90 | 3.1 | 7 |
| 66 | Targeting of monomer/misfolded SOD1 as a therapeutic strategy for amyotrophic lateral sclerosis. <i>Journal of Neuroscience</i> , 2012 , 32, 8791-9 | 6.6 | 71 |
| 65 | Protein Misfolding and Toxicity in Amyotrophic Lateral Sclerosis 2012 , 257-288 | | 2 |
| 64 | ALS-causing SOD1 mutations promote production of copper-deficient misfolded species. <i>Journal of Molecular Biology</i> , 2011 , 409, 839-52 | 6.5 | 33 |
| 63 | Cell surface binding and internalization of α modulated by degree of aggregation. <i>International Journal of Alzheimers Disease</i> , 2011 , 2011, 962352 | 3.7 | 10 |
| 62 | Interaction of Alzheimer Amyloid Peptide with Cell Surfaces and Artificial Membranes 2011 , 231-243 | | 1 |
| 61 | Multiphoton ANS fluorescence microscopy as an in vivo sensor for protein misfolding stress. <i>Cell Stress and Chaperones</i> , 2011 , 16, 549-61 | 4 | 8 |
| 60 | Relative and regional stabilities of the hamster, mouse, rabbit, and bovine prion proteins toward urea unfolding assessed by nuclear magnetic resonance and circular dichroism spectroscopies. <i>Biochemistry</i> , 2011 , 50, 7536-45 | 3.2 | 21 |
| 59 | CCM3/PDCD10 heterodimerizes with germinal center kinase III (GCKIII) proteins using a mechanism analogous to CCM3 homodimerization. <i>Journal of Biological Chemistry</i> , 2011 , 286, 25056-64 | 5.4 | 50 |
| 58 | Prion disease susceptibility is affected by beta-structure folding propensity and local side-chain interactions in PrP. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 19808-13 | 11.5 | 102 |
| 57 | Conversion of Abeta42 into a folded soluble native-like protein using a semi-random library of amphipathic helices. <i>Journal of Molecular Biology</i> , 2010 , 396, 1284-94 | 6.5 | 10 |

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|----|---|------|-----|
| 56 | Amyotrophic lateral sclerosis is a non-amyloid disease in which extensive misfolding of SOD1 is unique to the familial form. <i>Acta Neuropathologica</i> , 2010 , 119, 335-44 | 14.3 | 147 |
| 55 | Putative one-pot prebiotic polypeptides with ribonucleolytic activity. <i>Chemistry - A European Journal</i> , 2010 , 16, 5314-23 | 4.8 | 11 |
| 54 | Two distinct conformations of Abeta aggregates on the surface of living PC12 cells. <i>Biophysical Journal</i> , 2009 , 96, 4260-7 | 2.9 | 19 |
| 53 | Probing Alzheimer amyloid peptide aggregation using a cell-free fluorescent protein refolding method. <i>Biochemistry and Cell Biology</i> , 2009 , 87, 631-9 | 3.6 | 7 |
| 52 | Dimerization of the transmembrane domain of amyloid precursor proteins and familial Alzheimer's disease mutants. <i>BMC Neuroscience</i> , 2008 , 9, 17 | 3.2 | 61 |
| 51 | Denaturational stress induces formation of zinc-deficient monomers of Cu,Zn superoxide dismutase: implications for pathogenesis in amyotrophic lateral sclerosis. <i>Journal of Molecular Biology</i> , 2008 , 383, 424-36 | 6.5 | 40 |
| 50 | An immunological epitope selective for pathological monomer-misfolded SOD1 in ALS. <i>Nature Medicine</i> , 2007 , 13, 754-9 | 50.5 | 184 |
| 49 | Requirement of aggregation propensity of Alzheimer amyloid peptides for neuronal cell surface binding. <i>BMC Neuroscience</i> , 2007 , 8, 29 | 3.2 | 29 |
| 48 | Getting specificity from simplicity in putative proteins from the prebiotic earth. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007 , 104, 14941-6 | 11.5 | 15 |
| 47 | Species barriers for chronic wasting disease by in vitro conversion of prion protein. <i>Biochemical and Biophysical Research Communications</i> , 2007 , 364, 796-800 | 3.4 | 19 |
| 46 | Structure, folding, and misfolding of Cu,Zn superoxide dismutase in amyotrophic lateral sclerosis. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2006 , 1762, 1025-37 | 6.9 | 147 |
| 45 | NMR-driven secondary and tertiary structure model of Ca ²⁺ -loaded calyculin. <i>Biochemical and Biophysical Research Communications</i> , 2006 , 343, 520-4 | 3.4 | 1 |
| 44 | Variants of DsRed fluorescent protein: Development of a copper sensor. <i>Protein Science</i> , 2006 , 15, 2442-7 | 7.3 | 34 |
| 43 | Characterization of segments from the central region of BRCA1: an intrinsically disordered scaffold for multiple protein-protein and protein-DNA interactions?. <i>Journal of Molecular Biology</i> , 2005 , 345, 275-87 | 6.5 | 141 |
| 42 | Charge substitution shows that repulsive electrostatic interactions impede the oligomerization of Alzheimer amyloid peptides. <i>FEBS Letters</i> , 2005 , 579, 3574-8 | 3.8 | 46 |
| 41 | Reversible assembly of helical filaments by de novo designed minimalist peptides. <i>Biopolymers</i> , 2005 , 80, 26-33 | 2.2 | 30 |
| 40 | Alzheimer's Abeta40 studied by NMR at low pH reveals that sodium 4,4-dimethyl-4-silapentane-1-sulfonate (DSS) binds and promotes beta-ball oligomerization. <i>Journal of Biological Chemistry</i> , 2005 , 280, 3675-85 | 5.4 | 30 |
| 39 | Hyperactive antifreeze protein from winter flounder is a very long rod-like dimer of alpha-helices. <i>Journal of Biological Chemistry</i> , 2005 , 280, 17920-9 | 5.4 | 67 |

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|----|--|------|-----|
| 38 | Monomeric Cu,Zn-superoxide dismutase is a common misfolding intermediate in the oxidation models of sporadic and familial amyotrophic lateral sclerosis. <i>Journal of Biological Chemistry</i> , 2004 , 279, 15499-504 | 5.4 | 263 |
| 37 | Interaction of human and mouse Abeta peptides. <i>Journal of Neurochemistry</i> , 2004 , 91, 1398-403 | 6 | 39 |
| 36 | Reply to Properties of a disease-specific prion probe <i>Nature Medicine</i> , 2004 , 10, 11-12 | 50.5 | 1 |
| 35 | Interactions of Alzheimer amyloid peptides with cultured cells and brain tissue, and their biological consequences. <i>Biopolymers</i> , 2004 , 76, 4-14 | 2.2 | 16 |
| 34 | Identification of stable helical bundles from a combinatorial library of amphipathic peptides. <i>Biopolymers</i> , 2004 , 76, 244-57 | 2.2 | 21 |
| 33 | The PrP-like protein Doppel binds copper. <i>Journal of Biological Chemistry</i> , 2003 , 278, 8888-96 | 5.4 | 35 |
| 32 | Co-incorporation of A beta 40 and A beta 42 to form mixed pre-fibrillar aggregates. <i>FEBS Journal</i> , 2003 , 270, 654-63 | | 35 |
| 31 | Lipopeptide detergents designed for the structural study of membrane proteins. <i>Nature Biotechnology</i> , 2003 , 21, 171-6 | 44.5 | 155 |
| 30 | A prion protein epitope selective for the pathologically misfolded conformation. <i>Nature Medicine</i> , 2003 , 9, 893-9 | 50.5 | 233 |
| 29 | Conformational coupling of Mg ²⁺ and Ca ²⁺ on the three-state folding of calyculin B. <i>Biochemistry</i> , 2003 , 42, 5531-9 | 3.2 | 12 |
| 28 | Alternate aggregation pathways of the Alzheimer beta-amyloid peptide: Abeta association kinetics at endosomal pH. <i>Journal of Molecular Biology</i> , 2003 , 325, 743-57 | 6.5 | 87 |
| 27 | Autoinhibition of the kit receptor tyrosine kinase by the cytosolic juxtamembrane region. <i>Molecular and Cellular Biology</i> , 2003 , 23, 3067-78 | 4.8 | 133 |
| 26 | Oxidation-induced misfolding and aggregation of superoxide dismutase and its implications for amyotrophic lateral sclerosis. <i>Journal of Biological Chemistry</i> , 2002 , 277, 47551-6 | 5.4 | 251 |
| 25 | The molecular interaction of human salivary histatins with polyphenolic compounds. <i>FEBS Journal</i> , 2001 , 268, 4384-97 | | 102 |
| 24 | Alternate routes to conformational specificity in a Greek key beta barrel protein. <i>FEBS Journal</i> , 2001 , 268, 4653-63 | | 2 |
| 23 | All or none fibrillogenesis of a prion peptide. <i>FEBS Journal</i> , 2001 , 268, 4885-91 | | 8 |
| 22 | Alzheimer beta-amyloid peptides: structures of amyloid fibrils and alternate aggregation products. <i>Biopolymers</i> , 2001 , 60, 381-94 | 2.2 | 44 |
| 21 | Calyculin B is a new member of the sarcoplasmic calcium-binding protein family. <i>Journal of Biological Chemistry</i> , 2001 , 276, 22529-36 | 5.4 | 15 |

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|----|---|------|-----|
| 20 | Progress in transthyretin fibrillogenesis research strengthens the amyloid hypothesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001 , 98, 14757-9 | 11.5 | 7 |
| 19 | Alzheimer β -amyloid peptides: Structures of amyloid fibrils and alternate aggregation products 2001 , 60, 381 | | 1 |
| 18 | Nonpolar contributions to conformational specificity in assemblies of designed short helical peptides. <i>Protein Science</i> , 2000 , 9, 1011-23 | 6.3 | 4 |
| 17 | Alternate aggregation pathways of the Alzheimer beta-amyloid peptide. An in vitro model of preamyloid. <i>Journal of Biological Chemistry</i> , 2000 , 275, 36436-40 | 5.4 | 64 |
| 16 | Structural studies of soluble oligomers of the Alzheimer beta-amyloid peptide. <i>Journal of Molecular Biology</i> , 2000 , 297, 73-87 | 6.5 | 201 |
| 15 | Manipulating the amyloid-beta aggregation pathway with chemical chaperones. <i>Journal of Biological Chemistry</i> , 1999 , 274, 32970-4 | 5.4 | 201 |
| 14 | Equilibrium folding intermediates of a Greek key beta-barrel protein. <i>Journal of Molecular Biology</i> , 1998 , 276, 669-81 | 6.5 | 21 |
| 13 | Structural transitions associated with the interaction of Alzheimer beta-amyloid peptides with gangliosides. <i>Journal of Biological Chemistry</i> , 1998 , 273, 4506-15 | 5.4 | 142 |
| 12 | Fibrillogenesis of Alzheimer A β peptides studied by fluorescence energy transfer. <i>Journal of Molecular Biology</i> , 1997 , 269, 214-24 | 6.5 | 61 |
| 11 | Amyloid beta-protein (A β) associated with lipid molecules: immunoreactivity distinct from that of soluble A β . <i>FEBS Letters</i> , 1997 , 420, 43-6 | 3.8 | 37 |
| 10 | Characterization of the interactions of Alzheimer beta-amyloid peptides with phospholipid membranes. <i>FEBS Journal</i> , 1997 , 245, 355-63 | | 160 |
| 9 | Membrane disruption by Alzheimer beta-amyloid peptides mediated through specific binding to either phospholipids or gangliosides. Implications for neurotoxicity. <i>Journal of Biological Chemistry</i> , 1996 , 271, 26482-9 | 5.4 | 267 |
| 8 | Helix propagation and N-cap propensities of the amino acids measured in alanine-based peptides in 40 volume percent trifluoroethanol. <i>Protein Science</i> , 1996 , 5, 2623-37 | 6.3 | 239 |
| 7 | Stability of β -Helices. <i>Advances in Protein Chemistry</i> , 1995 , 46, 141-176 | | 301 |
| 6 | Helix propensities of the amino acids measured in alanine-based peptides without helix-stabilizing side-chain interactions. <i>Protein Science</i> , 1994 , 3, 843-52 | 6.3 | 518 |
| 5 | Determination of free energies of N-capping in alpha-helices by modification of the Lifson-Roig helix-coil theory to include N- and C-capping. <i>Biochemistry</i> , 1994 , 33, 3396-403 | 3.2 | 163 |
| 4 | Aromatic side-chain contribution to far-ultraviolet circular dichroism of helical peptides and its effect on measurement of helix propensities. <i>Biochemistry</i> , 1993 , 32, 5560-5 | 3.2 | 309 |
| 3 | Large differences in the helix propensities of alanine and glycine. <i>Nature</i> , 1991 , 351, 586-8 | 50.4 | 305 |

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| 2 | The effect of enhanced alpha-helicity on the activity of a winter flounder antifreeze polypeptide. <i>FEBS Journal</i> , 1991 , 202, 1057-63 | 128 |
| 1 | Primary structures of the alanine-rich antifreeze polypeptides from grubby sculpin, <i>Myoxocephalus aeneus</i> . <i>Canadian Journal of Zoology</i> , 1988 , 66, 403-408 | 1.5 25 |