Rajesh Ramachandran

List of Publications by Year
in descending order

39 papers	2,655 citations	257450 24 h-index	315739 38 g-index
42 all docs	42 docs citations	42 times ranked	3158 citing authors

#	Article	IF	Citations
1	Cooperative and independent roles of Drp1 adaptors Mff and MiD49/51 in mitochondrial fission. Journal of Cell Science, 2016, 129, 2170-81.	2.0	234
2	Dissecting dynamin's role in clathrin-mediated endocytosis. Biochemical Society Transactions, 2009, 37, 1022-1026.	3.4	169
3	Membrane-dependent conformational changes initiate cholesterol-dependent cytolysin oligomerization and intersubunit Î²-strand alignment. Nature Structural and Molecular Biology, 2004, 11, 697-705.	8.2	168
4	The dynamin middle domain is critical for tetramerization and higher-order self-assembly. EMBO Journal, 2007, 26, 559-566.	7.8	164
5	Crystal Structures of the Full-Length Murine and Human Gasdermin D Reveal Mechanisms of Autoinhibition, Lipid Binding, and Oligomerization. Immunity, 2019, 51, 43-49.e4.	14.3	151
6	Coincident Phosphatidic Acid Interaction Restrains Drp1 in Mitochondrial Division. Molecular Cell, 2016, 63, 1034-1043.	9.7	150
7	A dimeric equilibrium intermediate nucleates Drp1 reassembly on mitochondrial membranes for fission. Molecular Biology of the Cell, 2014, 25, 1905-1915.	2.1	149
8	Cardiolipin's propensity for phase transition and its reorganization by dynamin-related protein 1 form a basis for mitochondrial membrane fission. Molecular Biology of the Cell, 2015, 26, 3104-3116.	2.1	129
9	Structural insights into the membrane-anchoring mechanism of a cholesterol-dependent cytolysin. Nature Structural Biology, 2002, 9, 823-7.	9.7	116
10	Real-time detection reveals that effectors couple dynamin's GTP-dependent conformational changes to the membrane. EMBO Journal, 2008, 27, 27-37.	7.8	102
11	Robust Colorimetric Assays for Dynamin's Basal and Stimulated GTPase Activities. Methods in Enzymology, 2005, 404, 490-503.	1.0	97
12	The Mechanoenzymatic Core of Dynamin-related Protein 1 Comprises the Minimal Machinery Required for Membrane Constriction. Journal of Biological Chemistry, 2015, 290, 11692-11703.	3.4	96
13	Membrane Insertion of the Pleckstrin Homology Domain Variable Loop 1 Is Critical for Dynamin-catalyzed Vesicle Scission. Molecular Biology of the Cell, 2009, 20, 4630-4639.	2.1	94
14	The dynamin superfamily. Current Biology, 2018, 28, R411-R416.	3.9	93
15	The domains of a cholesterol-dependent cytolysin undergo a major FRET-detected rearrangement during pore formation. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7139-7144.	7.1	87
16	Differential curvature sensing and generating activities of dynamin isoforms provide opportunities for tissue-specific regulation. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, E234-42.	7.1	87
17	Distinct Splice Variants of Dynamin-related Protein 1 Differentially Utilize Mitochondrial Fission Factor as an Effector of Cooperative GTPase Activity. Journal of Biological Chemistry, 2016, 291, 493-507.	3.4	78
18	Dynamin-related Protein 1 Oligomerization in Solution Impairs Functional Interactions with Membrane-anchored Mitochondrial Fission Factor. Journal of Biological Chemistry, 2016, 291, 478-492.	3.4	78

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19	Mitochondrial dynamics: The dynamin superfamily and execution by collusion. Seminars in Cell and Developmental Biology, 2018, 76, 201-212.	5.0	67
20	ATAD3A oligomerization causes neurodegeneration by coupling mitochondrial fragmentation and bioenergetics defects. Nature Communications, 2019, 10, 1371.	12.8	59
21	Vesicle scission: Dynamin. Seminars in Cell and Developmental Biology, 2011, 22, 10-17.	5.0	50
22	Alternate pleckstrin homology domain orientations regulate dynamin-catalyzed membrane fission. Molecular Biology of the Cell, 2014, 25, 879-890.	2.1	34
23	NMR identification of a conserved Drp1 cardiolipin-binding motif essential for stress-induced mitochondrial fission. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	31
24	Physical and functional connection between auxilin and dynamin during endocytosis. EMBO Journal, 2006, 25, 4163-4174.	7.8	29
25	Steric interference from intrinsically disordered regions controls dynamin-related protein 1 self-assembly during mitochondrial fission. Scientific Reports, 2018, 8, 10879.	3.3	27
26	The cryo-EM structure of the SNXâ€“BAR Mvp1 tetramer. Nature Communications, 2020, 11, 1506.	12.8	22
27	Exploring the links between lipid geometry and mitochondrial fission: Emerging concepts. Mitochondrion, 2019, 49, 305-313.	3.4	18
28	GFP fluorescence tagging alters dynamin-related proteinÂ1 oligomerization dynamics and creates disassembly-refractory puncta to mediate mitochondrial fission. Scientific Reports, 2020, 10, 14777.	3.3	18
29	AAV9 gene transfer of cMyBPC N-terminal domains ameliorates cardiomyopathy in cMyBPC-deficient mice. JCI Insight, 2020, 5, .	5.0	18
30	Geometric instability catalyzes mitochondrial fission. Molecular Biology of the Cell, 2019, 30, 160-168.	2.1	10
31	Syndapin 3 modulates fusion pore expansion in mouse neuroendocrine chromaffin cells. American Journal of Physiology - Cell Physiology, 2014, 306, C831-C843.	4.6	9
32	Imaging Dynamin-Related Protein 1 (Drp1)-Mediated Mitochondrial Fission in Living Cells. Methods in Molecular Biology, 2020, 2159, 205-217.	0.9	5
33	Molecular characterization of linker and loop-mediated structural modulation and hinge motion in the C4-C5 domains of cMyBPC. Journal of Structural Biology, 2022, 214, 107856.	2.8	5
34	Identification of Phosphorylation and Other Post-Translational Modifications in the Central C4C5 Domains of Murine Cardiac Myosin Binding Protein C. ACS Omega, 2022, 7, 14189-14202.	3.5	4
35	Microscale Thermophoresis (MST) as a Tool for Measuring Dynamin Superfamily Protein (DSP)â€“Lipid Interactions. Methods in Molecular Biology, 2020, 2159, 85-92.	0.9	2
36	A Single Common Protocol for the Expression and Purification of Soluble Mammalian DSPs from Escherichia coli. Methods in Molecular Biology, 2020, 2159, 31-40.	0.9	2

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37	Drp1 and the cytoskeleton: mechanistic nexus in mitochondrial division. Current Opinion in Physiology, 2022, 29, 100574.	1.8	2
38	Reply to Roy and Pucadyil: A gain of function by a GTPase-impaired Drp1. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	1
39	Supported lipid bilayer array to study clathrin mediated endocytosis in vitro. , 2007, , .		0