

# David C Chan

## 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.

87  
papers

23,241  
citations

52  
h-index

91  
g-index

91  
ext. papers

26,577  
ext. citations

13.3  
avg, IF

7.63  
L-index

#	Paper	IF	Citations
87	Clueless/CLUH regulates mitochondrial fission by promoting recruitment of Drp1 to mitochondria.. <i>Nature Communications</i> , <b>2022</b> , 13, 1582	17.4	3
86	Solving neurodegeneration: common mechanisms and strategies for new treatments.. <i>Molecular Neurodegeneration</i> , <b>2022</b> , 17, 23	19	5
85	ER-associated CTRP1 regulates mitochondrial fission via interaction with DRP1. <i>Experimental and Molecular Medicine</i> , <b>2021</b> , 53, 1769-1780	12.8	1
84	Mitochondrial fission factor (Mff) is required for organization of the mitochondrial sheath in spermatids. <i>Biochimica Et Biophysica Acta - General Subjects</i> , <b>2021</b> , 1865, 129845	4	8
83	Identification of new OPA1 cleavage site reveals that short isoforms regulate mitochondrial fusion. <i>Molecular Biology of the Cell</i> , <b>2021</b> , 32, 157-168	3.5	13
82	LONP1 and mtHSP70 cooperate to promote mitochondrial protein folding. <i>Nature Communications</i> , <b>2021</b> , 12, 265	17.4	16
81	miR-379 deletion ameliorates features of diabetic kidney disease by enhancing adaptive mitophagy via FIS1. <i>Communications Biology</i> , <b>2021</b> , 4, 30	6.7	7
80	Fis1 ablation in the male germline disrupts mitochondrial morphology and mitophagy, and arrests spermatid maturation. <i>Development (Cambridge)</i> , <b>2021</b> , 148,	6.6	5
79	Drp1 Tubulates the ER in a GTPase-Independent Manner. <i>Molecular Cell</i> , <b>2020</b> , 80, 621-632.e6	17.6	10
78	Mitochondrial dynamics during spermatogenesis. <i>Journal of Cell Science</i> , <b>2020</b> , 133,	5.3	16
77	Mitochondrial Dynamics and Its Involvement in Disease. <i>Annual Review of Pathology: Mechanisms of Disease</i> , <b>2020</b> , 15, 235-259	34	232
76	Structural insights of human mitofusin-2 into mitochondrial fusion and CMT2A onset. <i>Nature Communications</i> , <b>2019</b> , 10, 4914	17.4	41
75	Mitochondrial fusion is required for spermatogonial differentiation and meiosis. <i>ELife</i> , <b>2019</b> , 8,	8.9	26
74	Mitochondrial Respiratory Measurements in Patient-derived Fibroblasts. <i>Bio-protocol</i> , <b>2019</b> , 9, e3446	0.9	
73	MIRO-1 Determines Mitochondrial Shape Transition upon GPCR Activation and Ca Stress. <i>Cell Reports</i> , <b>2018</b> , 23, 1005-1019	10.6	51
72	Deciphering OPA1 mutations pathogenicity by combined analysis of human, mouse and yeast cell models. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , <b>2018</b> , 1864, 3496-3514	6.9	23
71	Sam50 Regulates PINK1-Parkin-Mediated Mitophagy by Controlling PINK1 Stability and Mitochondrial Morphology. <i>Cell Reports</i> , <b>2018</b> , 23, 2989-3005	10.6	49

70	De Novo DNM1L Variant in a Teenager With Progressive Paroxysmal Dystonia and Lethal Super-refractory Myoclonic Status Epilepticus. <i>Journal of Child Neurology</i> , <b>2018</b> , 33, 651-658	2.5	13
69	Removal of the Mitochondrial Fission Factor Mff Exacerbates Neuronal Loss and Neurological Phenotypes in a Huntington's Disease Mouse Model. <i>PLOS Currents</i> , <b>2018</b> , 10,		4
68	Hierarchical and stage-specific regulation of murine cardiomyocyte maturation by serum response factor. <i>Nature Communications</i> , <b>2018</b> , 9, 3837	17.4	36
67	MFN1 structures reveal nucleotide-triggered dimerization critical for mitochondrial fusion. <i>Nature</i> , <b>2017</b> , 542, 372-376	50.4	149
66	The glutamate/cystine xCT antiporter antagonizes glutamine metabolism and reduces nutrient flexibility. <i>Nature Communications</i> , <b>2017</b> , 8, 15074	17.4	126
65	OPA1 and cardiolipin team up for mitochondrial fusion. <i>Nature Cell Biology</i> , <b>2017</b> , 19, 760-762	23.4	22
64	OPA1 Isoforms in the Hierarchical Organization of Mitochondrial Functions. <i>Cell Reports</i> , <b>2017</b> , 19, 2557-2571	25.6	103
63	Mitochondrial Dynamics in Regulating the Unique Phenotypes of Cancer and Stem Cells. <i>Cell Metabolism</i> , <b>2017</b> , 26, 39-48	24.6	219
62	Valosin-containing protein (VCP/p97) inhibitors relieve Mitofusin-dependent mitochondrial defects due to VCP disease mutants. <i>ELife</i> , <b>2017</b> , 6,	8.9	44
61	A novel de novo dominant negative mutation in DNM1L impairs mitochondrial fission and presents as childhood epileptic encephalopathy. <i>American Journal of Medical Genetics, Part A</i> , <b>2016</b> , 170, 2002-11	2.5	86
60	Metabolism. AMP-activated protein kinase mediates mitochondrial fission in response to energy stress. <i>Science</i> , <b>2016</b> , 351, 275-281	33.3	583
59	Metabolic regulation of mitochondrial dynamics. <i>Journal of Cell Biology</i> , <b>2016</b> , 212, 379-87	7.3	582
58	Author response: Elimination of paternal mitochondria in mouse embryos occurs through autophagic degradation dependent on PARKIN and MUL1 <b>2016</b> ,		3
57	Elimination of paternal mitochondria in mouse embryos occurs through autophagic degradation dependent on PARKIN and MUL1. <i>ELife</i> , <b>2016</b> , 5,	8.9	180
56	Metabolic Stress-Induced Phosphorylation of KAP1 Ser473 Blocks Mitochondrial Fusion in Breast Cancer Cells. <i>Cancer Research</i> , <b>2016</b> , 76, 5006-18	10.1	37
55	MitoTALEN: A General Approach to Reduce Mutant mtDNA Loads and Restore Oxidative Phosphorylation Function in Mitochondrial Diseases. <i>Molecular Therapy</i> , <b>2015</b> , 23, 1592-9	11.7	105
54	Mitochondrial Dynamics is a Distinguishing Feature of Skeletal Muscle Fiber Types and Regulates Organellar Compartmentalization. <i>Cell Metabolism</i> , <b>2015</b> , 22, 1033-44	24.6	122
53	The mitochondrial fission receptor Mff selectively recruits oligomerized Drp1. <i>Molecular Biology of the Cell</i> , <b>2015</b> , 26, 4466-77	3.5	100

52	Titration of mitochondrial fusion rescues Mff-deficient cardiomyopathy. <i>Journal of Cell Biology</i> , <b>2015</b> , 211, 795-805	7.3	96
51	Crystal structure and functional analysis of MiD49, a receptor for the mitochondrial fission protein Drp1. <i>Protein Science</i> , <b>2015</b> , 24, 386-94	6.3	31
50	Proteolytic cleavage of Opa1 stimulates mitochondrial inner membrane fusion and couples fusion to oxidative phosphorylation. <i>Cell Metabolism</i> , <b>2014</b> , 19, 630-41	24.6	257
49	SIRT3 deacetylates and activates OPA1 to regulate mitochondrial dynamics during stress. <i>Molecular and Cellular Biology</i> , <b>2014</b> , 34, 807-19	4.8	250
48	Mitochondrial dynamics and inheritance during cell division, development and disease. <i>Nature Reviews Molecular Cell Biology</i> , <b>2014</b> , 15, 634-46	48.7	600
47	Degradation of the deubiquitinating enzyme USP33 is mediated by p97 and the ubiquitin ligase HERC2. <i>Journal of Biological Chemistry</i> , <b>2014</b> , 289, 19789-98	5.4	18
46	Distinct structural features of TFAM drive mitochondrial DNA packaging versus transcriptional activation. <i>Nature Communications</i> , <b>2014</b> , 5, 3077	17.4	132
45	Evidence for site-specific occupancy of the mitochondrial genome by nuclear transcription factors. <i>PLoS ONE</i> , <b>2014</b> , 9, e84713	3.7	25
44	Analyzing mitochondrial dynamics in mouse organotypic slice cultures. <i>Methods in Enzymology</i> , <b>2014</b> , 547, 111-29	1.7	6
43	Mitochondrial DNA: impacting central and peripheral nervous systems. <i>Neuron</i> , <b>2014</b> , 84, 1126-42	13.9	77
42	The mitochondrial fission receptor MiD51 requires ADP as a cofactor. <i>Structure</i> , <b>2014</b> , 22, 367-77	5.2	63
41	Fis1, Mff, MiD49, and MiD51 mediate Drp1 recruitment in mitochondrial fission. <i>Molecular Biology of the Cell</i> , <b>2013</b> , 24, 659-67	3.5	675
40	Genome-wide analysis reveals coating of the mitochondrial genome by TFAM. <i>PLoS ONE</i> , <b>2013</b> , 8, e74513	3.7	39
39	Fis1, Mff, MiD49 and MiD51 facilitate Drp1 recruitment for mitochondrial fission. <i>FASEB Journal</i> , <b>2013</b> , 27, 582.2	0.9	
38	Loss of Mfn2 results in progressive, retrograde degeneration of dopaminergic neurons in the nigrostriatal circuit. <i>Human Molecular Genetics</i> , <b>2012</b> , 21, 4817-26	5.6	126
37	Eliminating mitochondrial DNA from sperm. <i>Developmental Cell</i> , <b>2012</b> , 22, 469-70	10.2	15
36	Mouse lines with photo-activatable mitochondria to study mitochondrial dynamics. <i>Genesis</i> , <b>2012</b> , 50, 833-43	1.9	118
35	Guidelines for the use and interpretation of assays for monitoring autophagy. <i>Autophagy</i> , <b>2012</b> , 8, 445-544.2	44.2	2783

34	Fusion and fission: interlinked processes critical for mitochondrial health. <i>Annual Review of Genetics</i> , <b>2012</b> , 46, 265-87	14.5	783
33	Crystal structure of mitochondrial fission complex reveals scaffolding function for mitochondrial division 1 (Mdv1) coiled coil. <i>Journal of Biological Chemistry</i> , <b>2012</b> , 287, 9855-9861	5.4	21
32	Lysocardiolipin acyltransferase 1 (ALCAT1) controls mitochondrial DNA fidelity and biogenesis through modulation of MFN2 expression. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 6975-80	11.5	57
31	Broad activation of the ubiquitin-proteasome system by Parkin is critical for mitophagy. <i>Human Molecular Genetics</i> , <b>2011</b> , 20, 1726-37	5.6	737
30	Parkin uses the UPS to ship off dysfunctional mitochondria. <i>Autophagy</i> , <b>2011</b> , 7, 771-2	10.2	34
29	OPA1 disease alleles causing dominant optic atrophy have defects in cardiolipin-stimulated GTP hydrolysis and membrane tubulation. <i>Human Molecular Genetics</i> , <b>2010</b> , 19, 2113-22	5.6	166
28	Mitochondrial fusion is required for mtDNA stability in skeletal muscle and tolerance of mtDNA mutations. <i>Cell</i> , <b>2010</b> , 141, 280-9	56.2	806
27	Mitofusins and OPA1 mediate sequential steps in mitochondrial membrane fusion. <i>Molecular Biology of the Cell</i> , <b>2009</b> , 20, 3525-32	3.5	377
26	SLP-2 is required for stress-induced mitochondrial hyperfusion. <i>EMBO Journal</i> , <b>2009</b> , 28, 1589-600	13	495
25	Mitochondrial dynamics--fusion, fission, movement, and mitophagy--in neurodegenerative diseases. <i>Human Molecular Genetics</i> , <b>2009</b> , 18, R169-76	5.6	1032
24	Hindlimb gait defects due to motor axon loss and reduced distal muscles in a transgenic mouse model of Charcot-Marie-Tooth type 2A. <i>Human Molecular Genetics</i> , <b>2008</b> , 17, 367-75	5.6	106
23	Complementation between mouse Mfn1 and Mfn2 protects mitochondrial fusion defects caused by CMT2A disease mutations. <i>Journal of Cell Biology</i> , <b>2007</b> , 176, 405-14	7.3	230
22	Structural basis for recruitment of mitochondrial fission complexes by Fis1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2007</b> , 104, 18526-30	11.5	105
21	OPA1 processing controls mitochondrial fusion and is regulated by mRNA splicing, membrane potential, and Yme1L. <i>Journal of Cell Biology</i> , <b>2007</b> , 178, 749-55	7.3	583
20	Functions and dysfunctions of mitochondrial dynamics. <i>Nature Reviews Molecular Cell Biology</i> , <b>2007</b> , 8, 870-9	48.7	990
19	Mitochondrial dynamics in disease. <i>New England Journal of Medicine</i> , <b>2007</b> , 356, 1707-9	59.2	78
18	Mitochondrial fusion protects against neurodegeneration in the cerebellum. <i>Cell</i> , <b>2007</b> , 130, 548-62	56.2	681
17	New insights into mitochondrial fusion. <i>FEBS Letters</i> , <b>2007</b> , 581, 2168-73	3.8	45

16	Critical dependence of neurons on mitochondrial dynamics. <i>Current Opinion in Cell Biology</i> , <b>2006</b> , 18, 453-9	9	176
15	Molecular mechanism of mitochondrial membrane fusion. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , <b>2006</b> , 1763, 482-9	4.9	47
14	Domain interactions within Fzo1 oligomers are essential for mitochondrial fusion. <i>Journal of Biological Chemistry</i> , <b>2006</b> , 281, 16599-606	5.4	47
13	Mitochondrial fusion and fission in mammals. <i>Annual Review of Cell and Developmental Biology</i> , <b>2006</b> , 22, 79-99	12.6	710
12	Mitochondria: dynamic organelles in disease, aging, and development. <i>Cell</i> , <b>2006</b> , 125, 1241-52	56.2	1463
11	Dissecting mitochondrial fusion. <i>Developmental Cell</i> , <b>2006</b> , 11, 592-4	10.2	61
10	A common lipid links Mfn-mediated mitochondrial fusion and SNARE-regulated exocytosis. <i>Nature Cell Biology</i> , <b>2006</b> , 8, 1255-62	23.4	339
9	Disruption of fusion results in mitochondrial heterogeneity and dysfunction. <i>Journal of Biological Chemistry</i> , <b>2005</b> , 280, 26185-92	5.4	962
8	Emerging functions of mammalian mitochondrial fusion and fission. <i>Human Molecular Genetics</i> , <b>2005</b> , 14 Spec No. 2, R283-9	5.6	405
7	The WD40 protein Caf4p is a component of the mitochondrial fission machinery and recruits Dnm1p to mitochondria. <i>Journal of Cell Biology</i> , <b>2005</b> , 170, 237-48	7.3	202
6	Quantitation of mitochondrial dynamics by photolabeling of individual organelles shows that mitochondrial fusion is blocked during the Bax activation phase of apoptosis. <i>Journal of Cell Biology</i> , <b>2004</b> , 164, 493-9	7.3	343
5	Mitochondrial dynamics in mammals. <i>Current Topics in Developmental Biology</i> , <b>2004</b> , 59, 119-44	5.3	135
4	Structural basis of mitochondrial tethering by mitofusin complexes. <i>Science</i> , <b>2004</b> , 305, 858-62	33.3	654
3	Mitofusins Mfn1 and Mfn2 coordinately regulate mitochondrial fusion and are essential for embryonic development. <i>Journal of Cell Biology</i> , <b>2003</b> , 160, 189-200	7.3	1735
2	Reconstructing hominid Y evolution: X-homologous block, created by X-Y transposition, was disrupted by Yp inversion through LINE-LINE recombination. <i>Human Molecular Genetics</i> , <b>1998</b> , 7, 1-11	5.6	113
1	Crystal structure of the simian immunodeficiency virus (SIV) gp41 core: conserved helical interactions underlie the broad inhibitory activity of gp41 peptides. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1998</b> , 95, 9134-9	11.5	192