Michael T Ryan

List of Publications by Year
in descending order

135 papers	16,589 citations	15504 65 h-index	16183 124 g-index
153 all docs	153 docs citations	153 times ranked	17738 citing authors

#	Article	IF	Citations
1	FunRich: An open access standalone functional enrichment and interaction network analysis tool. Proteomics, 2015, 15, 2597-2601.	2.2	1,145
2	A mitochondrial specific stress response in mammalian cells. EMBO Journal, 2002, 21, 4411-4419.	7.8	825
3	BAK/BAX macropores facilitate mitochondrial herniation and mtDNA efflux during apoptosis. Science, 2018, 359, .	12.6	581
4	MiD49 and MiD51, new components of the mitochondrial fission machinery. EMBO Reports, 2011, 12, 565-573.	4.5	527
5	Mitochondrial-Nuclear Communications. Annual Review of Biochemistry, 2007, 76, 701-722.	11.1	511
6	Tom40 forms the hydrophilic channel of the mitochondrial import pore for preproteins. Nature, 1998, 395, 516-521.	27.8	478
7	Accessory subunits are integral for assembly and function of human mitochondrial complex I. Nature, 2016, 538, 123-126.	27.8	429
8	Mitochondrial Respiratory Chain Supercomplexes Are Destabilized in Barth Syndrome Patients. Journal of Molecular Biology, 2006, 361, 462-469.	4.2	373
9	Understanding mitochondrial complex I assembly in health and disease. Biochimica Et Biophysica Acta - Bioenergetics, 2012, 1817, 851-862.	1.0	351
10	Absence of Cardiolipin in the crd1 Null Mutant Results in Decreased Mitochondrial Membrane Potential and Reduced Mitochondrial Function. Journal of Biological Chemistry, 2000, 275, 22387-22394.	3.4	350
11	Machinery for protein sorting and assembly in the mitochondrial outer membrane. Nature, 2003, 424, 565-571.	27.8	344
12	Levels of human Fis1 at the mitochondrial outer membrane regulate mitochondrial morphology. Journal of Cell Science, 2004, 117, 1201-1210.	2.0	292
13	Tom22 is a multifunctional organizer of the mitochondrial preprotein translocase. Nature, 1999, 401, 485-489.	27.8	269
14	Analysis of the Assembly Profiles for Mitochondrial- and Nuclear-DNA-Encoded Subunits into Complex I. Molecular and Cellular Biology, 2007, 27, 4228-4237.	2.3	242
15	Adaptor Proteins MiD49 and MiD51 Can Act Independently of Mff and Fis1 in Drp1 Recruitment and Are Specific for Mitochondrial Fission. Journal of Biological Chemistry, 2013, 288, 27584-27593.	3.4	240
16	The regulation of mitochondrial morphology: Intricate mechanisms and dynamic machinery. Cellular Signalling, 2011, 23, 1534-1545.	3.6	236
17	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
18	Preprotein Translocase of the Outer Mitochondrial Membrane: Molecular Dissection and Assembly of the General Import Pore Complex. Molecular and Cellular Biology, 1998, 18, 6515-6524.	2.3	231

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19	Recent advances into the understanding of mitochondrial fission. Biochimica Et Biophysica Acta - Molecular Cell Research, 2013, 1833, 150-161.	4.1	219
20	The three modules of ADP/ATP carrier cooperate in receptor recruitment and translocation into mitochondria. EMBO Journal, 2001, 20, 951-960.	7.8	213
21	Mutation of the Mitochondrial Tyrosyl-tRNA Synthetase Gene, YARS2, Causes Myopathy, Lactic Acidosis, and Sideroblastic Anemiaâ€"MLASA Syndrome. American Journal of Human Genetics, 2010, 87, 52-59.	6.2	211
22	Essential role of Isd11 in mitochondrial ironâ€"sulfur cluster synthesis on Isu scaffold proteins. EMBO Journal, 2006, 25, 184-195.	7.8	204
23	Mitochondrial Cardiolipin Involved in Outer-Membrane Protein Biogenesis: Implications for Barth Syndrome. Current Biology, 2009, 19, 2133-2139.	3.9	204
24	Crystal Structure of the Mitochondrial Chaperone TIM9â€¢10 Reveals a Six-Bladed Î±-Propeller. Molecular Cell, 2006, 21, 123-133.	9.7	199
25	The constriction and scission machineries involved in mitochondrial fission. Journal of Cell Science, 2017, 130, 2953-2960.	2.0	187
26	Multistep assembly of the protein import channel of the mitochondrial outer membrane. Nature Structural Biology, 2001, 8, 361-370.	9.7	184
27	Human CIA30 is involved in the early assembly of mitochondrial complex I and mutations in its gene cause disease. EMBO Journal, 2007, 26, 3227-3237.	7.8	184
28	Assembly of mitochondrial complex I and defects in disease. Biochimica Et Biophysica Acta - Molecular Cell Research, 2009, 1793, 78-88.	4.1	180
29	Function and regulation of the divisome for mitochondrial fission. Nature, 2021, 590, 57-66.	27.8	179
30	Mitochondrial protein-import machinery: correlating structure with function. Trends in Cell Biology, 2007, 17, 456-464.	7.9	176
31	Mutation of C20orf7 Disrupts Complex I Assembly and Causes Lethal Neonatal Mitochondrial Disease. American Journal of Human Genetics, 2008, 83, 468-478.	6.2	175
32	Dynamin-related protein 1 has membrane constricting and severing abilities sufficient for mitochondrial and peroxisomal fission. Nature Communications, 2018, 9, 5239.	12.8	167
33	Dissection of the Mitochondrial Import and Assembly Pathway for Human Tom40. Journal of Biological Chemistry, 2005, 280, 11535-11543.	3.4	165
34	De novo mutations in the mitochondrialND3 gene as a cause of infantile mitochondrial encephalopathy and complex I deficiency. Annals of Neurology, 2004, 55, 58-64.	5.3	164
35	NDUFS6 mutations are a novel cause of lethal neonatal mitochondrial complex I deficiency. Journal of Clinical Investigation, 2004, 114, 837-845.	8.2	164
36	Functional Staging of ADP/ATP Carrier Translocation across the Outer Mitochondrial Membrane. Journal of Biological Chemistry, 1999, 274, 20619-20627.	3.4	162

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37	Mutations of the mitochondrial ND1 gene as a cause of MELAS. Journal of Medical Genetics, 2004, 41, 784-789.	3.2	161
38	Protein Import Channel of the Outer Mitochondrial Membrane: a Highly Stable Tom40-Tom22 Core Structure Differentially Interacts with Preproteins, Small Tom Proteins, and Import Receptors. Molecular and Cellular Biology, 2001, 21, 2337-2348.	2.3	154
39	Biogenesis of Porin of the Outer Mitochondrial Membrane Involves an Import Pathway via Receptors and the General Import Pore of the Tom Complex. Journal of Cell Biology, 2001, 152, 289-300.	5.2	151
40	Import and assembly of proteins into mitochondria of mammalian cells. Biochimica Et Biophysica Acta - Molecular Cell Research, 2002, 1592, 97-105.	4.1	147
41	Building a complex complex: Assembly of mitochondrial respiratory chain complex I. Seminars in Cell and Developmental Biology, 2018, 76, 154-162.	5.0	145
42	Mutations in MTFMT Underlie a Human Disorder of Formylation Causing Impaired Mitochondrial Translation. Cell Metabolism, 2011, 14, 428-434.	16.2	141
43	Mitochondrial dynamics in health and disease. FEBS Letters, 2021, 595, 1184-1204.	2.8	126
44	Chapter 11 Assaying protein import into mitochondria. Methods in Cell Biology, 2001, 65, 189-215.	1.1	123
45	Assembly factors of human mitochondrial complex I and their defects in disease. IUBMB Life, 2010, 62, 497-502.	3.4	120
46	Biogenesis of Tim Proteins of the Mitochondrial Carrier Import Pathway: Differential Targeting Mechanisms and Crossing Over with the Main Import Pathway. Molecular Biology of the Cell, 1999, 10, 2461-2474.	2.1	119
47	Insertion and Assembly of Human Tom7 into the Preprotein Translocase Complex of the Outer Mitochondrial Membrane. Journal of Biological Chemistry, 2002, 277, 42197-42204.	3.4	118
48	Mdm38 interacts with ribosomes and is a component of the mitochondrial protein export machinery. Journal of Cell Biology, 2006, 172, 553-564.	5.2	118
49	Quantitative high-confidence human mitochondrial proteome and its dynamics in cellular context. Cell Metabolism, 2021, 33, 2464-2483.e18.	16.2	113
50	VDAC2 enables BAX to mediate apoptosis and limit tumor development. Nature Communications, 2018, 9, 4976.	12.8	110
51	Low mutant load of mitochondrial DNA G13513A mutation can cause Leigh's disease. Annals of Neurology, 2003, 54, 473-478.	5.3	107
52	Bax targets mitochondria by distinct mechanisms before or during apoptotic cell death: a requirement for VDAC2 or Bak for efficient Bax apoptotic function. Cell Death and Differentiation, 2014, 21, 1925-1935.	11.2	106
53	Mitochondrial morphology and distribution in mammalian cells. Biological Chemistry, 2006, 387, 1551-1558.	2.5	103
54	Analysis of mitochondrial subunit assembly into respiratory chain complexes using Blue Native polyacrylamide gel electrophoresis. Analytical Biochemistry, 2007, 364, 128-137.	2.4	103

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55	Mutations in the UQCC1-Interacting Protein, UQCC2, Cause Human Complex III Deficiency Associated with Perturbed Cytochrome b Protein Expression. PLoS Genetics, 2013, 9, e1004034.	3.5	96
56	Sengers Syndrome-Associated Mitochondrial Acylglycerol Kinase Is a Subunit of the Human TIM22 Protein Import Complex. Molecular Cell, 2017, 67, 457-470.e5.	9.7	96
57	Structural and functional analysis of MiD51, a dynamin receptor required for mitochondrial fission. Journal of Cell Biology, 2014, 204, 477-486.	5.2	91
58	Biochemical and molecular diagnosis of mitochondrial respiratory chain disorders. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1659, 121-128.	1.0	90
59	COA6 is a mitochondrial complex IV assembly factor critical for biogenesis of mtDNA-encoded COX2. Human Molecular Genetics, 2015, 24, 5404-5415.	2.9	89
60	Inhibition of Bak Activation by VDAC2 Is Dependent on the Bak Transmembrane Anchor. Journal of Biological Chemistry, 2010, 285, 36876-36883.	3.4	83
61	Mitochondrial protein import: precursor oxidation in a ternary complex with disulfide carrier and sulfhydryl oxidase. Journal of Cell Biology, 2008, 183, 195-202.	5.2	82
62	Assembly of nuclear DNAâ€encoded subunits into mitochondrial complexâ€ƒIV, and their preferential integration into supercomplex forms in patient mitochondria. FEBS Journal, 2009, 276, 6701-6713.	4.7	79
63	Analysis of ER-mitochondria contacts by correlative fluorescence microscopy and soft X-ray tomography of mammalian cells. Journal of Cell Science, 2015, 128, 2795-804.	2.0	79
64	Hsp70 proteins in protein translocation. Advances in Protein Chemistry, 2001, 59, 223-242.	4.4	68
65	Gene Knockout Using Transcription Activator-like Effector Nucleases (TALENs) Reveals That Human NDUFA9 Protein Is Essential for Stabilizing the Junction between Membrane and Matrix Arms of Complex I. Journal of Biological Chemistry, 2013, 288, 1685-1690.	3.4	68
66	Assembly of the Bak Apoptotic Pore. Journal of Biological Chemistry, 2013, 288, 26027-26038.	3.4	67
67	Solution Structure of the Acetylated and Noncleavable Mitochondrial Targeting Signal of Rat Chaperonin 10. Journal of Biological Chemistry, 1995, 270, 1323-1331.	3.4	65
68	Human Miltons associate with mitochondria and induce microtubule-dependent remodeling of mitochondrial networks. Biochimica Et Biophysica Acta - Molecular Cell Research, 2010, 1803, 564-574.	4.1	64
69	Dissecting the Roles of Mitochondrial Complex I Intermediate Assembly Complex Factors in the Biogenesis of Complex I. Cell Reports, 2020, 31, 107541.	6.4	64
70	Isolation and characterization of an IgNAR variable domain specific for the human mitochondrial translocase receptor Tom70. FEBS Journal, 2003, 270, 3543-3554.	0.2	62
71	The â€˜mitochondrial contact site and cristae organising systemâ€™ (MICOS) in health and human disease. Journal of Biochemistry, 2020, 167, 243-255.	1.7	62
72	Mitochondrial fission protein Drp1 inhibition promotes cardiac mesodermal differentiation of human pluripotent stem cells. Cell Death Discovery, 2018, 4, 39.	4.7	61

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73	A Founder Mutation in PET100 Causes Isolated Complex IV Deficiency in Lebanese Individuals with Leigh Syndrome. American Journal of Human Genetics, 2014, 94, 209-222.	6.2	60
74	Preservation of skeletal muscle mitochondrial content in older adults: relationship between mitochondria, fibre type and highâ€intensity exercise training. Journal of Physiology, 2017, 595, 3345-3359.	2.9	60
75	Characterization of mitochondrial FOXRED1 in the assembly of respiratory chain complex I. Human Molecular Genetics, 2015, 24, 2952-2965.	2.9	59
76	Structural and Functional Requirements for Activity of the Tim9â€“Tim10 Complex in Mitochondrial Protein Import. Molecular Biology of the Cell, 2009, 20, 769-779.	2.1	58
77	Proteomic and Metabolomic Analyses of Mitochondrial Complex I-deficient Mouse Model Generated by Spontaneous B2 Short Interspersed Nuclear Element (SINE) Insertion into NADH Dehydrogenase (Ubiquinone) Fe-S Protein 4 (Ndufs4) Gene. Journal of Biological Chemistry, 2012, 287, 20652-20663.	3.4	58
78	Biallelic Mutations in TMEM126B Cause Severe Complex I Deficiency with a Variable Clinical Phenotype. American Journal of Human Genetics, 2016, 99, 217-227.	6.2	57
79	Import of Nuclear-Encoded Proteins into Mitochondria. Experimental Physiology, 2003, 88, 57-64.	2.0	56
80	<scp>OXA</scp> 1L mutations cause mitochondrial encephalopathy and a combined oxidative phosphorylation defect. EMBO Molecular Medicine, 2018, 10, .	6.9	54
81	Mutations in the Gene Encoding C8orf38 Block Complex I Assembly by Inhibiting Production of the Mitochondria-Encoded Subunit ND1. Journal of Molecular Biology, 2011, 414, 413-426.	4.2	52
82	Impaired Folding of the Mitochondrial Small TIM Chaperones Induces Clearance by the i-AAA Protease. Journal of Molecular Biology, 2012, 424, 227-239.	4.2	52
83	The Role of Molecular Chaperones in Mitochondrial Protein Import and Folding. International Review of Cytology, 1997, 174, 127-193.	6.2	51
84	Mitochondrial OXPHOS complex assembly lines. Nature Cell Biology, 2018, 20, 511-513.	10.3	51
85	Next-generation sequencing in molecular diagnosis: NUBPL mutations highlight the challenges of variant detection and interpretation. Human Mutation, 2012, 33, 411-418.	2.5	49
86	Tissue-specific splicing of an Ndufs6 gene-trap insertion generates a mitochondrial complex I deficiency-specific cardiomyopathy. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6165-6170.	7.1	47
87	Deficiency in Apoptosis-Inducing Factor Recapitulates Chronic Kidney Disease via Aberrant Mitochondrial Homeostasis. Diabetes, 2016, 65, 1085-1098.	0.6	47
88	Role of chaperones in the biogenesis and maintenance of the mitochondrion. FASEB Journal, 1995, 9, 371-378.	0.5	46
89	Isolation of a cDNA clone specifying rat chaperonin 10, a stress-inducible mitochondrial matrix protein synthesised without a cleavable presequence. FEBS Letters, 1994, 337, 152-156.	2.8	45
90	Nicotinamide riboside attenuates age-associated metabolic and functional changes in hematopoietic stem cells. Nature Communications, 2021, 12, 2665.	12.8	45

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91	The genes encoding mammalian chaperonin 60 and chaperonin 10 are linked head-to-head and share a bidirectional promoter. Gene, 1997, 196, 9-17.	2.2	43
92	Chapter 18 Analysis of Respiratory Chain Complex Assembly with Radiolabeled Nuclearâ€•and Mitochondrialâ€Encoded Subunits. Methods in Enzymology, 2009, 456, 321-339.	1.0	43
93	The Mitochondrial Acyl-carrier Protein Interaction Network Highlights Important Roles for LYRM Family Members in Complex I and Mitoribosome Assembly. Molecular and Cellular Proteomics, 2020, 19, 65-77.	3.8	43
94	Functional Analysis of Human Metaxin in Mitochondrial Protein Import in Cultured Cells and Its Relationship with the Tom Complex. Biochemical and Biophysical Research Communications, 2000, 276, 1028-1034.	2.1	41
95	Splitting up the powerhouse: structural insights into the mechanism of mitochondrial fission. Cellular and Molecular Life Sciences, 2015, 72, 3695-3707.	5.4	41
96	Bi-allelic Mutations in NDUFA6 Establish Its Role in Early-Onset Isolated Mitochondrial Complex I Deficiency. American Journal of Human Genetics, 2018, 103, 592-601.	6.2	41
97	Identification of new channels by systematic analysis of the mitochondrial outer membrane. Journal of Cell Biology, 2017, 216, 3485-3495.	5.2	40
98	A Syntenic Cross Species Aneuploidy Genetic Screen Links RCAN1 Expression to Î²-Cell Mitochondrial Dysfunction in Type 2 Diabetes. PLoS Genetics, 2016, 12, e1006033.	3.5	39
99	HIGD2A is Required for Assembly of the COX3 Module of Human Mitochondrial Complex IV. Molecular and Cellular Proteomics, 2020, 19, 1145-1160.	3.8	37
100	Biogenesis of Yeast Mitochondrial Cytochrome c: A Unique Relationship to the TOM Machinery. Journal of Molecular Biology, 2003, 327, 465-474.	4.2	34
101	Function of hTim8a in complex IV assembly in neuronal cells provides insight into pathomechanism underlying Mohr-TranebjÃ¦rg syndrome. ELife, 2019, 8, .	6.0	34
102	Metabolic characteristics of CD8+ T cell subsets in young and aged individuals are not predictive of functionality. Nature Communications, 2020, 11, 2857.	12.8	33
103	Fatal Perinatal Mitochondrial Cardiac Failure Caused by Recurrent De Novo Duplications in the ATAD3 Locus. Med, 2021, 2, 49-73.e10.	4.4	33
104	The transport machinery for the import of preproteins across the outer mitochondrial membrane. International Journal of Biochemistry and Cell Biology, 2000, 32, 13-21.	2.8	31
105	Affinity Purification, Overexpression, and Characterization of Chaperonin 10 Homologues Synthesized with and without N-terminal Acetylation. Journal of Biological Chemistry, 1995, 270, 22037-22043.	3.4	29
106	Mitochondrial protein import machineries and lipids: A functional connection. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 1002-1011.	2.6	27
107	A constitutive form of heat-shock protein 70 is located in the outer membranes of mitochondria from rat liver. FEBS Letters, 1993, 332, 277-281.	2.8	26
108	Characterization of the 90 kDa heat shock protein (HSP90)-associated ATP/GTPase. Journal of Biosciences, 1996, 21, 179-190.	1.1	22

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109	Characterization of presenilin complexes from mouse and human brain using Blue Native gel electrophoresis reveals high expression in embryonic brain and minimal change in complex mobility with pathogenic presenilin mutations. FEBS Journal, 2004, 271, 375-385.	0.2	22
110	A novel isoform of the human mitochondrial complex I subunit <scp>NDUFV</scp>3. FEBS Letters, 2017, 591, 109-117.	2.8	22
111	Chaperones: Inserting Beta Barrels into Membranes. Current Biology, 2004, 14, R207-R209.	3.9	20
112	Mitochondrial fusion: Reaching the end of mitofusinâ€™s tether. Journal of Cell Biology, 2016, 215, 597-598.	5.2	20
113	NDUFS6 mutations are a novel cause of lethal neonatal mitochondrial complex I deficiency. Journal of Clinical Investigation, 2004, 114, 837-845.	8.2	19
114	Neuronal and astrocyte dysfunction diverges from embryonic fibroblasts in the Ndufs4fky/fky mouse. Bioscience Reports, 2014, 34, e00151.	2.4	18
115	Mapping biological composition through quantitative phase and absorption X-ray ptychography. Scientific Reports, 2014, 4, 6796.	3.3	18
116	Loss of BIM increases mitochondrial oxygen consumption and lipid oxidation, reduces adiposity and improves insulin sensitivity in mice. Cell Death and Differentiation, 2018, 25, 217-225.	11.2	18
117	A homozygous variant in <scp>NDUFA8</scp> is associated with developmental delay, microcephaly, and epilepsy due to mitochondrial complex I deficiency. Clinical Genetics, 2020, 98, 155-165.	2.0	18
118	Translocation of Proteins into Mitochondria. IUBMB Life, 2001, 51, 345-350.	3.4	17
119	Affinity-purification and identification of GrpE homologues from mammalian mitochondria. BBA - Proteins and Proteomics, 1995, 1248, 75-79.	2.1	16
120	SILAC-based complexome profiling dissects the structural organization of the human respiratory supercomplexes in SCAFIKO cells. Biochimica Et Biophysica Acta - Bioenergetics, 2021, 1862, 148414.	1.0	15
121	Structural and functional characterization of the mitochondrial complex IV assembly factor Coa6. Life Science Alliance, 2019, 2, e201900458.	2.8	15
122	Optic atrophyâ€“associated TMEM126A is an assembly factor for the ND4-module of mitochondrial complex I. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	14
123	Translation and Assembly of Radiolabeled Mitochondrial DNA-Encoded Protein Subunits from Cultured Cells and Isolated Mitochondria. Methods in Molecular Biology, 2016, 1351, 115-129.	0.9	12
124	Mitochondrial COA7 is a heme-binding protein with disulfide reductase activity, which acts in the early stages of complex IV assembly. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	12
125	Mitofusins â€˜bridgeâ€™ the gap between oxidative stress and mitochondrial hyperfusion. EMBO Reports, 2012, 13, 870-871.	4.5	11
126	What Role Does COA6 Play in Cytochrome C Oxidase Biogenesis: A Metallochaperone or Thiol Oxidoreductase, or Both?. International Journal of Molecular Sciences, 2020, 21, 6983.	4.1	11

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127	Cavin3 released from caveolae interacts with BRCA1 to regulate the cellular stress response. ELife, 2021, 10, .	6.0	11
128	Mitochondria: Organization of Respiratory Chain Complexes Becomes Cristae-lized. Current Biology, 2013, 23, R969-R971.	3.9	10
129	Sideroflexin 4 is a complex I assembly factor that interacts with the MCIA complex and is required for the assembly of the ND2 module. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2115566119.	7.1	10
130	Most mitochondrial dGTP is tightly bound to respiratory complex I through the NDUFA10 subunit. Communications Biology, 2022, 5, .	4.4	9
131	A patient with homozygous nonsense variants in two Leigh syndrome disease genes: Distinguishing a dual diagnosis from a hypomorphic proteinâ€truncating variant. Human Mutation, 2019, 40, 893-898.	2.5	8
132	Mitochondria â€“ The energy powerhouses. Seminars in Cell and Developmental Biology, 2018, 76, 130-131.	5.0	7
133	Mitochondrial dysfunction in a novel form of autosomal recessive ataxia. Mitochondrion, 2013, 13, 235-245.	3.4	4
134	Stalking the mitochondrial ATP synthase: Ina found guilty by association. EMBO Journal, 2014, 33, 1617-1618.	7.8	3
135	Resolving mitochondrial cristae: introducing a new model into the fold. EMBO Journal, 2020, 39, e105714.	7.8	3