

# Catherine F Clarke

## List of Publications by Year in descending order

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80  
papers

3,881  
citations

126907  
33  
h-index

144013  
57  
g-index

82  
all docs

82  
docs citations

82  
times ranked

3556  
citing authors

#	ARTICLE	IF	CITATIONS
1	The metabolite $\hat{\pm}$ -ketoglutarate extends lifespan by inhibiting ATP synthase and TOR. <i>Nature</i> , 2014, 510, 397-401.	27.8	485
2	COQ6 mutations in human patients produce nephrotic syndrome with sensorineural deafness. <i>Journal of Clinical Investigation</i> , 2011, 121, 2013-2024.	8.2	343
3	ADCK4 mutations promote steroid-resistant nephrotic syndrome through CoQ10 biosynthesis disruption. <i>Journal of Clinical Investigation</i> , 2013, 123, 5179-5189.	8.2	275
4	Endogenous synthesis of coenzyme Q in eukaryotes. <i>Mitochondrion</i> , 2007, 7, S62-S71.	3.4	223
5	The COQ7 Gene Encodes a Protein in <i>Saccharomyces cerevisiae</i> Necessary for Ubiquinone Biosynthesis. <i>Journal of Biological Chemistry</i> , 1996, 271, 2995-3004.	3.4	174
6	A Defect in Coenzyme Q Biosynthesis Is Responsible for the Respiratory Deficiency in <i>Saccharomyces cerevisiae</i> <i>abc1</i> Mutants. <i>Journal of Biological Chemistry</i> , 2001, 276, 18161-18168.	3.4	113
7	Coenzyme Q10 deficiencies: pathways in yeast and humans. <i>Essays in Biochemistry</i> , 2018, 62, 361-376.	4.7	103
8	Expression of the human atypical kinase ADCK3 rescues coenzyme Q biosynthesis and phosphorylation of Coq polypeptides in yeast <i>coq8</i> mutants. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2011, 1811, 348-360.	2.4	102
9	Small amounts of isotope-reinforced polyunsaturated fatty acids suppress lipid autoxidation. <i>Free Radical Biology and Medicine</i> , 2012, 53, 893-906.	2.9	95
10	Uptake of Exogenous Coenzyme Q and Transport to Mitochondria Is Required for <i>bc1</i> Complex Stability in Yeast <i>coq</i> Mutants. <i>Journal of Biological Chemistry</i> , 2002, 277, 10973-10981.	3.4	94
11	<i>para</i> -Aminobenzoic Acid Is a Precursor in Coenzyme Q6 Biosynthesis in <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2010, 285, 27827-27838.	3.4	94
12	Characterization of the COQ5 Gene from <i>Saccharomyces cerevisiae</i> EVIDENCE FOR A C-METHYLTRANSFERASE IN UBIQUINONE BIOSYNTHESIS. <i>Journal of Biological Chemistry</i> , 1997, 272, 9182-9188.	3.4	86
13	<i>Saccharomyces cerevisiae</i> Coq9 polypeptide is a subunit of the mitochondrial coenzyme Q biosynthetic complex. <i>Archives of Biochemistry and Biophysics</i> , 2007, 463, 19-26.	3.0	86
14	Coenzyme Q supplementation or over-expression of the yeast Coq8 putative kinase stabilizes multi-subunit Coq polypeptide complexes in yeast <i>coq</i> null mutants. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2014, 1841, 630-644.	2.4	85
15	Overexpression of the Coq8 Kinase in <i>Saccharomyces cerevisiae</i> <i>coq</i> Null Mutants Allows for Accumulation of Diagnostic Intermediates of the Coenzyme Q6 Biosynthetic Pathway. <i>Journal of Biological Chemistry</i> , 2012, 287, 23571-23581.	3.4	84
16	The <i>Saccharomyces cerevisiae</i> COQ10 Gene Encodes a START Domain Protein Required for Function of Coenzyme Q in Respiration. <i>Journal of Biological Chemistry</i> , 2005, 280, 42627-42635.	3.4	81
17	Coq3 and Coq4 Define a Polypeptide Complex in Yeast Mitochondria for the Biosynthesis of Coenzyme Q. <i>Journal of Biological Chemistry</i> , 2005, 280, 20231-20238.	3.4	78
18	Conservation of the <i>Caenorhabditis elegans</i> timing gene <i>clk-1</i> from yeast to human: a gene required for ubiquinone biosynthesis with potential implications for aging. <i>Mammalian Genome</i> , 1999, 10, 1000-1004.	2.2	76

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19	The yeast Coq4 polypeptide organizes a mitochondrial protein complex essential for coenzyme Q biosynthesis. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2009, 1791, 69-75.	2.4	75
20	Genetic evidence for a multi-subunit complex in the O-methyltransferase steps of coenzyme Q biosynthesis. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2000, 1484, 287-297.	2.4	74
21	Isotope-reinforced polyunsaturated fatty acids protect yeast cells from oxidative stress. <i>Free Radical Biology and Medicine</i> , 2011, 50, 130-138.	2.9	71
22	Yeast COQ4 Encodes a Mitochondrial Protein Required for Coenzyme Q Synthesis. <i>Archives of Biochemistry and Biophysics</i> , 2001, 392, 48-58.	3.0	65
23	Identification of Coq11, a New Coenzyme Q Biosynthetic Protein in the CoQ-Synthome in <i>Saccharomyces cerevisiae</i> . <i>Journal of Biological Chemistry</i> , 2015, 290, 7517-7534.	3.4	65
24	Sensitivity to treatment with polyunsaturated fatty acids is a general characteristic of the ubiquinone-deficient yeast coq mutants. <i>Molecular Aspects of Medicine</i> , 1997, 18, 121-127.	6.4	57
25	Complementation of <i>Saccharomyces cerevisiae</i> coq7 Mutants by Mitochondrial Targeting of the <i>Escherichia coli</i> UbiF Polypeptide. <i>Journal of Biological Chemistry</i> , 2006, 281, 16401-16409.	3.4	56
26	Isotope-reinforced polyunsaturated fatty acids protect mitochondria from oxidative stress. <i>Free Radical Biology and Medicine</i> , 2015, 82, 63-72.	2.9	54
27	3-Hexaprenyl-4-hydroxybenzoic acid forms a predominant intermediate pool in ubiquinone biosynthesis in <i>Saccharomyces cerevisiae</i> . <i>Archives of Biochemistry and Biophysics</i> , 1995, 320, 305-314.	3.0	53
28	Molecular characterization of the human COQ5 C-methyltransferase in coenzyme Q10 biosynthesis. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2014, 1841, 1628-1638.	2.4	48
29	New advances in coenzyme Q biosynthesis. <i>Protoplasma</i> , 2000, 213, 134-147.	2.1	39
30	Human COQ10A and COQ10B are distinct lipid-binding START domain proteins required for coenzyme Q function. <i>Journal of Lipid Research</i> , 2019, 60, 1293-1310.	4.2	38
31	ADCK4 Deficiency Destabilizes the Coenzyme Q Complex, Which Is Rescued by 2,4-Dihydroxybenzoic Acid Treatment. <i>Journal of the American Society of Nephrology: JASN</i> , 2020, 31, 1191-1211.	6.1	38
32	Resveratrol and para-coumarate serve as ring precursors for coenzyme Q biosynthesis. <i>Journal of Lipid Research</i> , 2015, 56, 909-919.	4.2	36
33	Treatment with 2,4-Dihydroxybenzoic Acid Prevents FSGS Progression and Renal Fibrosis in Podocyte-Specific Coq6 Knockout Mice. <i>Journal of the American Society of Nephrology: JASN</i> , 2019, 30, 393-405.	6.1	36
34	A tRNATRP gene mediates the suppression of cbs2-223 previously attributed to ABC1/COQ8. <i>Biochemical and Biophysical Research Communications</i> , 2004, 317, 648-653.	2.1	35
35	The Endoplasmic Reticulum-Mitochondria Encounter Structure Complex Coordinates Coenzyme Q Biosynthesis. <i>Contact (Thousand Oaks (Ventura County, Calif))</i> , 2019, 2, 251525641882540.	1.3	35
36	A conserved START domain coenzyme Q-binding polypeptide is required for efficient Q biosynthesis, respiratory electron transport, and antioxidant function in <i>Saccharomyces cerevisiae</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2013, 1831, 776-791.	2.4	34

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37	Kaempferol increases levels of coenzyme Q in kidney cells and serves as a biosynthetic ring precursor. <i>Free Radical Biology and Medicine</i> , 2017, 110, 176-187.	2.9	32
38	The mitochondrial carrier SFXN1 is critical for complex III integrity and cellular metabolism. <i>Cell Reports</i> , 2021, 34, 108869.	6.4	30
39	Yeast Coq9 controls deamination of coenzyme Q intermediates that derive from para-aminobenzoic acid. <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2015, 1851, 1227-1239.	2.4	25
40	Coenzyme Q Biosynthesis: An Update on the Origins of the Benzenoid Ring and Discovery of New Ring Precursors. <i>Metabolites</i> , 2021, 11, 385.	2.9	25
41	Chromatin-remodeling SWI/SNF complex regulates coenzyme Q6 synthesis and a metabolic shift to respiration in yeast. <i>Journal of Biological Chemistry</i> , 2017, 292, 14851-14866.	3.4	21
42	Restoring de novo coenzyme Q biosynthesis in <i>Caenorhabditis elegans</i> coq-3 mutants yields profound rescue compared to exogenous coenzyme Q supplementation. <i>Gene</i> , 2012, 506, 106-116.	2.2	20
43	Characterization of <i>Saccharomyces cerevisiae</i> ubiquinone-deficient mutants. <i>BioFactors</i> , 1999, 9, 121-129.	5.4	19
44	Ubiquinone Biosynthetic Complexes in Prokaryotes and Eukaryotes. <i>Cell Chemical Biology</i> , 2019, 26, 465-467.	5.2	17
45	Recombinant RquA catalyzes the in vivo conversion of ubiquinone to rhodoquinone in <i>Escherichia coli</i> and <i>Saccharomyces cerevisiae</i> . <i>Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids</i> , 2019, 1864, 1226-1234.	2.4	15
46	Human COQ9 Rescues a coq9 Yeast Mutant by Enhancing Coenzyme Q Biosynthesis from 4-Hydroxybenzoic Acid and Stabilizing the CoQ-Synthome. <i>Frontiers in Physiology</i> , 2017, 8, 463.	2.8	13
47	Genes and lipids that impact uptake and assimilation of exogenous coenzyme Q in <i>Saccharomyces cerevisiae</i> . <i>Free Radical Biology and Medicine</i> , 2020, 154, 105-118.	2.9	12
48	COQ11 deletion mitigates respiratory deficiency caused by mutations in the gene encoding the coenzyme Q chaperone protein Coq10. <i>Journal of Biological Chemistry</i> , 2020, 295, 6023-6042.	3.4	11
49	A dedicated flavin-dependent monooxygenase catalyzes the hydroxylation of demethoxyubiquinone into ubiquinone (coenzyme Q) in <i>Arabidopsis</i> . <i>Journal of Biological Chemistry</i> , 2021, 297, 101283.	3.4	10
50	Metabolism of the Flavonol Kaempferol in Kidney Cells Liberates the B-ring to Enter Coenzyme Q Biosynthesis. <i>Molecules</i> , 2020, 25, 2955.	3.8	8
51	Genetic screening reveals phospholipid metabolism as a key regulator of the biosynthesis of the redox-active lipid coenzyme Q. <i>Redox Biology</i> , 2021, 46, 102127.	9.0	8
52	Regulation of hepatic coenzyme Q biosynthesis by dietary omega-3 polyunsaturated fatty acids. <i>Redox Biology</i> , 2021, 46, 102061.	9.0	8
53	Unexpected role for vitamin B2. <i>Nature</i> , 2015, 522, 427-428.	27.8	7
54	Intragenic suppressor mutations of the COQ8 protein kinase homolog restore coenzyme Q biosynthesis and function in <i>Saccharomyces cerevisiae</i> . <i>PLoS ONE</i> , 2020, 15, e0234192.	2.5	6

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55	Coq6 Hydroxylase: Unmasked and Bypassed. Chemistry and Biology, 2011, 18, 1069-1070.	6.0	2
56	Insights into an Ancient Atypical Kinase Essential for Biosynthesis of Coenzyme Q. Cell Chemical Biology, 2018, 25, 123-125.	5.2	1
57	Characterization of Coq11, a novel protein involved in the biosynthesis of coenzyme Q in <i>Saccharomyces cerevisiae</i> . FASEB Journal, 2018, 32, 539.13.	0.5	1
58	Investigation of the Interacting Partners of Yeast Coq6: A Component of the Multienzyme Complex Required for Coenzyme Q Biosynthesis. FASEB Journal, 2006, 20, A952.	0.5	0
59	Coq2p function in the <i>Saccharomyces cerevisiae</i> coenzyme Q biosynthetic pathway. FASEB Journal, 2008, 22, 1036.2.	0.5	0
60	Characterization of a Coenzyme Q biosynthetic complex in <i>Saccharomyces cerevisiae</i> . FASEB Journal, 2010, 24, 849.1.	0.5	0
61	Expression of Human ADCK3 restores Coenzyme Q biosynthesis and Phosphorylation of Coq polypeptides in yeast <i>abc1/coq8</i> mutants. FASEB Journal, 2010, 24, 849.8.	0.5	0
62	Using Thermotolerance to Explore Differences in <i>Caenorhabditis elegans</i> Diet. FASEB Journal, 2010, 24, 888.4.	0.5	0
63	Characterizing a <i>coq-3</i> mutation that extends life span in <i>C. elegans</i> . FASEB Journal, 2010, 24, 660.1.	0.5	0
64	Yeast <i>coq</i> null mutants harboring multi-copy <i>COQ8</i> accumulate novel intermediates in coenzyme Q biosynthesis. FASEB Journal, 2011, 25, 933.5.	0.5	0
65	Para-aminobenzoic Acid (pABA) serves as ring precursors of Coenzyme Q in both yeast and <i>E. coli</i> . FASEB Journal, 2013, 27, 585.18.	0.5	0
66	Characterizing the stabilizing effect of Coq8p and the function of Coq9p in yeast Q biosynthesis. FASEB Journal, 2013, 27, 820.1.	0.5	0
67	<i>S. cerevisiae coq5</i> null mutants require overexpression of Coq8 kinase for rescue by <i>E. coli COQ5</i> homolog <i>ubiE</i> . FASEB Journal, 2013, 27, 585.16.	0.5	0
68	Characterization of Proteins Associated with the Coenzyme Q Biosynthetic Complex and Analyses of Phosphorylated Coq Proteins in Yeast Mitochondria. FASEB Journal, 2015, 29, 568.29.	0.5	0
69	Coq9 regulates the deamination of Q6 intermediates in yeast Q biosynthesis and human Coq9 homolog rescues yeast <i>coq9</i> mutant by increasing the incorporation of 4-hydroxybenzoic acid. FASEB Journal, 2015, 29, 568.13.	0.5	0
70	Characterization of <i>S. cerevisiae</i> Coq10p, a putative START domain Q-binding protein. FASEB Journal, 2015, 29, 568.27.	0.5	0
71	Genetic Screen for Suppressors of <i>east Coq8</i> Mutants. FASEB Journal, 2015, 29, 568.18.	0.5	0
72	Studies into the farnesylated analogs of key intermediates in the biosynthetic pathway of Coenzyme Q: Synthesis and metabolism. FASEB Journal, 2015, 29, 568.30.	0.5	0

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73	Studies into the synthetic analogs of key intermediates, and ring precursors in the biosynthetic pathway of Coenzyme Q: Synthesis and metabolism. FASEB Journal, 2016, 30, 661.7.	0.5	0
74	Characterization of <i>Saccharomyces cerevisiae</i> Coenzyme Q Biosynthetic Protein Coq11. FASEB Journal, 2017, 31, 781.9.	0.5	0
75	Nutrient sensing and mitochondrial coenzyme Q biosynthesis: Are they connected by a phosphatase?. FASEB Journal, 2017, 31, 782.15.	0.5	0
76	Identifying genes required for the use of p-coumarate in coenzyme Q biosynthesis in <i>Saccharomyces cerevisiae</i> . FASEB Journal, 2018, 32, .	0.5	0
77	Human COQ10A and COQ10B are distinct putative StART domain proteins that restore Q biosynthesis and function in yeast. FASEB Journal, 2018, 32, 672.7.	0.5	0
78	Nutrient sensing and mitochondrial Coenzyme Q biosynthesis: Are they connected by a phosphatase?. FASEB Journal, 2018, 32, 539.17.	0.5	0
79	Polyunsaturated fatty acids directly regulate coenzyme Q biosynthesis. FASEB Journal, 2018, 32, 539.15.	0.5	0
80	Respiratory defects caused by mutations affecting the Endoplasmic Reticulum-Mitochondria Encounter Structure (ERMES) can be rescued by the deletion of <i>COQ11</i> . FASEB Journal, 2022, 36, .	0.5	0