

# Eric Fontaine

## List of Publications by Year in descending order

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125  
papers

6,751  
citations

87723

38  
h-index

66788

78  
g-index

151  
all docs

151  
docs citations

151  
times ranked

8636  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dimethylbiguanide Inhibits Cell Respiration via an Indirect Effect Targeted on the Respiratory Chain Complex I. <i>Journal of Biological Chemistry</i> , 2000, 275, 223-228.	1.6	1,189
2	Regulation of the Permeability Transition Pore in Skeletal Muscle Mitochondria. <i>Journal of Biological Chemistry</i> , 1998, 273, 12662-12668.	1.6	294
3	Gut microbiota richness promotes its stability upon increased dietary fibre intake in healthy adults. <i>Environmental Microbiology</i> , 2015, 17, 4954-4964.	1.8	279
4	The ROS Production Induced by a Reverse-Electron Flux at Respiratory-Chain Complex 1 is Hampered by Metformin. <i>Journal of Bioenergetics and Biomembranes</i> , 2006, 38, 33-42.	1.0	253
5	Metformin Prevents High-Glucose-Induced Endothelial Cell Death Through a Mitochondrial Permeability Transition-Dependent Process. <i>Diabetes</i> , 2005, 54, 2179-2187.	0.3	228
6	A Ubiquinone-binding Site Regulates the Mitochondrial Permeability Transition Pore. <i>Journal of Biological Chemistry</i> , 1998, 273, 25734-25740.	1.6	226
7	Opening of the Mitochondrial Permeability Transition Pore Induces Reactive Oxygen Species Production at the Level of the Respiratory Chain Complex I. <i>Journal of Biological Chemistry</i> , 2004, 279, 17197-17204.	1.6	222
8	Neuroprotective Role of Antidiabetic Drug Metformin Against Apoptotic Cell Death in Primary Cortical Neurons. <i>Journal of Molecular Neuroscience</i> , 2008, 34, 77-87.	1.1	200
9	The mitochondrial permeability transition. <i>BioFactors</i> , 1998, 8, 273-281.	2.6	167
10	Metformin-Induced Mitochondrial Complex I Inhibition: Facts, Uncertainties, and Consequences. <i>Frontiers in Endocrinology</i> , 2018, 9, 753.	1.5	164
11	Bupivacaine Myotoxicity Is Mediated by Mitochondria. <i>Journal of Biological Chemistry</i> , 2002, 277, 12221-12227.	1.6	154
12	Progress on the mitochondrial permeability transition pore: regulation by complex I and ubiquinone analogs. , 1999, 31, 335-345.		136
13	Three Classes of Ubiquinone Analogs Regulate the Mitochondrial Permeability Transition Pore through a Common Site. <i>Journal of Biological Chemistry</i> , 2000, 275, 29521-29527.	1.6	132
14	Metformin inhibits mitochondrial permeability transition and cell death: a pharmacological in vitro study. <i>Biochemical Journal</i> , 2004, 382, 877-884.	1.7	131
15	Determination of mitochondrial reactive oxygen species: methodological aspects. <i>Journal of Cellular and Molecular Medicine</i> , 2002, 6, 175-187.	1.6	129
16	Rotenone Inhibits the Mitochondrial Permeability Transition-induced Cell Death in U937 and KB Cells. <i>Journal of Biological Chemistry</i> , 2001, 276, 41394-41398.	1.6	121
17	Imeglimin Normalizes Glucose Tolerance and Insulin Sensitivity and Improves Mitochondrial Function in Liver of a High-Fat, High-Sucrose Diet Mice Model. <i>Diabetes</i> , 2015, 64, 2254-2264.	0.3	120
18	Study of regulation of mitochondrial respiration in vivo. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1997, 1322, 41-59.	0.5	115

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19	Mitochondrial metabolism and type-2 diabetes: a specific target of metformin. <i>Diabetes and Metabolism</i> , 2003, 29, 6S88-6S94.	1.4	108
20	Nitric oxide increases oxidative phosphorylation efficiency. <i>Journal of Bioenergetics and Biomembranes</i> , 2007, 39, 158-166.	1.0	89
21	Inhibition of complex I regulates the mitochondrial permeability transition through a phosphate-sensitive inhibitory site masked by cyclophilin D. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, 1628-1634.	0.5	88
22	Regulation of the Mitochondrial Permeability Transition Pore by Ubiquinone Analogs. A Progress Report. <i>Free Radical Research</i> , 2002, 36, 405-412.	1.5	82
23	Mechanism of action of Ipeglimin: A novel therapeutic agent for type 2 diabetes. <i>Diabetes, Obesity and Metabolism</i> , 2021, 23, 664-673.	2.2	76
24	Protection of pancreatic INS-1 $\beta$ -cells from glucose- and fructose-induced cell death by inhibiting mitochondrial permeability transition with cyclosporin A or metformin. <i>Cell Death and Disease</i> , 2011, 2, e134-e134.	2.7	63
25	Muscle denervation promotes opening of the permeability transition pore and increases the expression of cyclophilin D. <i>Journal of Physiology</i> , 2006, 574, 319-327.	1.3	62
26	Ipeglimin prevents human endothelial cell death by inhibiting mitochondrial permeability transition without inhibiting mitochondrial respiration. <i>Cell Death Discovery</i> , 2016, 2, 15072.	2.0	60
27	Ipeglimin - A New Oral Anti-Diabetic that Targets the Three Key Defects of type 2 Diabetes. <i>Journal of Diabetes &amp; Metabolism</i> , 2011, 02, .	0.2	59
28	Mitochondrial Respiratory Chain Adjustment to Cellular Energy Demand. <i>Journal of Biological Chemistry</i> , 2001, 276, 46104-46110.	1.6	57
29	Effect of polyunsaturated fatty acids deficiency on oxidative phosphorylation in rat liver mitochondria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1996, 1276, 181-187.	0.5	54
30	The centenary of the Harris-Benedict equations: How to assess energy requirements best? Recommendations from the ESPEN expert group. <i>Clinical Nutrition</i> , 2021, 40, 690-701.	2.3	48
31	Abnormalities of mitochondrial functioning can partly explain the metabolic disorders encountered in sarcopenic gastrocnemius. <i>Aging Cell</i> , 2007, 6, 165-177.	3.0	45
32	Ubiquinone Analogs: A Mitochondrial Permeability Transition Pore-Dependent Pathway to Selective Cell Death. <i>PLoS ONE</i> , 2010, 5, e11792.	1.1	45
33	Chemical Modification of Arginines by 2,3-Butanedione and Phenylglyoxal Causes Closure of the Mitochondrial Permeability Transition Pore. <i>Journal of Biological Chemistry</i> , 1998, 273, 12669-12674.	1.6	44
34	Role of Substrates in the Regulation of Mitochondrial Function In Situ. <i>IUBMB Life</i> , 2001, 52, 221-229.	1.5	44
35	Effect of Transient and Permanent Permeability Transition Pore Opening on NAD(P)H Localization in Intact Cells. <i>Journal of Biological Chemistry</i> , 2009, 284, 15117-15125.	1.6	44
36	Clinical and economic impact of malnutrition per se on the postoperative course of colorectal cancer patients. <i>Clinical Nutrition</i> , 2012, 31, 896-902.	2.3	44

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37	Correlation Between Degree of Rupture of Outer Mitochondrial Membrane and Changes of Kinetics of Regulation of Respiration by ADP in Permeabilized Heart and Liver Cells. <i>Biochemical and Biophysical Research Communications</i> , 1995, 208, 919-926.	1.0	41
38	On the regulation of cellular energetics in health and disease. <i>Molecular and Cellular Biochemistry</i> , 1996, 160-161, 195-208.	1.4	41
39	Early resuscitation of dengue shock syndrome in children with hyperosmolar sodium-lactate: a randomized single-blind clinical trial of efficacy and safety. <i>Critical Care</i> , 2014, 18, 466.	2.5	41
40	Cytoplasmic Cellular Structures Control Permeability of Outer Mitochondrial-Membrane for ADP and Oxidative-Phosphorylation in Rat-Liver Cells. <i>Biochemical and Biophysical Research Communications</i> , 1995, 213, 138-146.	1.0	38
41	Choosing the Right Substrate. <i>Novartis Foundation Symposium</i> , 0, , 108-127.	1.2	38
42	Crohn's disease patients with chronic intestinal failure receiving long-term parenteral nutrition: a cross-national adult study. <i>Alimentary Pharmacology and Therapeutics</i> , 2011, 34, 931-940.	1.9	36
43	Mitochondrial Permeability Transition Pore Inhibitors Prevent Ethanol-Induced Neuronal Death in Mice. <i>Chemical Research in Toxicology</i> , 2013, 26, 78-88.	1.7	36
44	Perspectives on the mitochondrial permeability transition. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1998, 1365, 200-206.	0.5	34
45	Erythropoietin and Its Derivates Modulate Mitochondrial Dysfunction after Diffuse Traumatic Brain Injury. <i>Journal of Neurotrauma</i> , 2016, 33, 1625-1633.	1.7	32
46	Title is missing!. <i>Molecular and Cellular Biochemistry</i> , 1998, 184, 35-52.	1.4	31
47	Flux-dependent increase in the stoichiometry of charge translocation by mitochondrial ATPase/ATP synthase induced by almitrine. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1990, 1018, 91-97.	0.5	30
48	Octanoate Affects 2,4-Dinitrophenol Uncoupling in Intact Isolated Rat Hepatocytes. <i>FEBS Journal</i> , 1995, 231, 498-502.	0.2	30
49	Decrease in Cytosolic ATP/ADP Ratio and Activation of Pyruvate Kinase after in vitro Addition of Almitrine in Hepatocytes Isolated from Fasted Rats. <i>FEBS Journal</i> , 1994, 224, 967-974.	0.2	27
50	The Yield of Oxidative Phosphorylation Is Controlled both by Force and Flux. <i>Biochemical and Biophysical Research Communications</i> , 1997, 232, 532-535.	1.0	27
51	Thyroid status is a key regulator of both flux and efficiency of oxidative phosphorylation in rat hepatocytes. <i>Journal of Bioenergetics and Biomembranes</i> , 2002, 34, 55-66.	1.0	27
52	Respective effects of oxygen and energy substrate deprivation on beta cell viability. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2015, 1847, 629-639.	0.5	27
53	Impact of chronic and low cadmium exposure of rats: sex specific disruption of glucose metabolism. <i>Chemosphere</i> , 2018, 207, 764-773.	4.2	27
54	Citrulline stimulates muscle protein synthesis, by reallocating ATP consumption to muscle protein synthesis. <i>Journal of Cachexia, Sarcopenia and Muscle</i> , 2019, 10, 919-928.	2.9	27

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55	Inhibition of the mitochondrial cyclosporin A-sensitive permeability transition pore by the arginine reagent phenylglyoxal. <i>FEBS Letters</i> , 1997, 409, 361-364.	1.3	26
56	Chronic ethanol ingestion increases efficiency of oxidative phosphorylation in rat liver mitochondria. <i>FEBS Letters</i> , 2000, 468, 239-242.	1.3	26
57	Uncoupling effect of polyunsaturated fatty acid deficiency in isolated rat hepatocytes:effect on glycerol metabolism. <i>Biochemical Journal</i> , 1996, 317, 667-674.	1.7	25
58	Effects of permeability transition inhibition and decrease in cytochrome c content on doxorubicin toxicity in K562 cells. <i>Oncogene</i> , 2006, 25, 2646-2655.	2.6	25
59	Metformin and respiratory chain complex I: the last piece of the puzzle?. <i>Biochemical Journal</i> , 2014, 463, e3-e5.	1.7	24
60	The mechanism by which imeglimin inhibits gluconeogenesis in rat liver cells. <i>Endocrinology, Diabetes and Metabolism</i> , 2021, 4, e00211.	1.0	24
61	Sodium lactate for fluid resuscitation: the preferred solution for the coming decades?. <i>Critical Care</i> , 2014, 18, 163.	2.5	23
62	Isolated rat hepatocyte metabolism is affected by chronic renal failure. <i>Kidney International</i> , 1995, 47, 1522-1527.	2.6	22
63	Electrochemical Monitoring of the Early Events of Hydrogen Peroxide Production by Mitochondria. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 6655-6658.	7.2	22
64	Maternal exercise modifies body composition and energy substrates handling in male offspring fed a high-fat/high-sucrose diet. <i>Journal of Physiology</i> , 2017, 595, 7049-7062.	1.3	22
65	Adaptive alterations in metabolism: practical consequences on energy requirements in the severely ill patient. <i>Current Opinion in Clinical Nutrition and Metabolic Care</i> , 2011, 14, 171-175.	1.3	21
66	Human mesenchymal stem cells improve rat islet functionality under cytokine stress with combined upregulation of heme oxygenase-1 and ferritin. <i>Stem Cell Research and Therapy</i> , 2019, 10, 85.	2.4	21
67	The mitochondrially-localized nucleoside diphosphate kinase D (NME4) is a novel metastasis suppressor. <i>BMC Biology</i> , 2021, 19, 228.	1.7	21
68	Pulmonary Histiocytosis X with Mediastinal Lymph Node Involvement. <i>The American Review of Respiratory Disease</i> , 1990, 142, 1216-1218.	2.9	20
69	Prerequisites for ubiquinone analogs to prevent mitochondrial permeability transition-induced cell death. <i>Journal of Bioenergetics and Biomembranes</i> , 2012, 44, 207-212.	1.0	20
70	Mitochondrial adaptation to in vivo polyunsaturated fatty acid deficiency: increase in phosphorylation efficiency. <i>Journal of Bioenergetics and Biomembranes</i> , 2001, 33, 53-61.	1.0	19
71	Glucose 6-Phosphate Hydrolysis Is Activated by Glucagon in a Low Temperature-sensitive Manner. <i>Journal of Biological Chemistry</i> , 2001, 276, 28126-28133.	1.6	19
72	Lactate in shock: a high-octane fuel for the heart?. <i>Intensive Care Medicine</i> , 2007, 33, 406-408.	3.9	19

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73	Fatty acids platelets and oxidative markers following intravenous n-3 fatty acids administration in cystic fibrosis: An open pilot observational study. <i>Journal of Cystic Fibrosis</i> , 2007, 6, 320-326.	0.3	18
74	Short-term and long-term effects of submaximal maternal exercise on offspring glucose homeostasis and pancreatic function. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 2016, 311, E508-E518.	1.8	17
75	Impact of maternal low-level cadmium exposure on glucose and lipid metabolism of the litter at different ages after weaning. <i>Chemosphere</i> , 2019, 219, 109-121.	4.2	17
76	Effects of Decreasing Mitochondrial Volume on the Regulation of the Permeability Transition Pore. <i>Journal of Bioenergetics and Biomembranes</i> , 2005, 37, 25-33.	1.0	15
77	Acute stress delays brain mitochondrial permeability transition pore opening. <i>Journal of Neurochemistry</i> , 2014, 131, 314-322.	2.1	15
78	Synergistic effects of citrulline supplementation and exercise on performance in male rats: evidence for implication of protein and energy metabolisms. <i>Clinical Science</i> , 2017, 131, 775-790.	1.8	15
79	Choosing the right substrate. <i>Novartis Foundation Symposium</i> , 2007, 280, 108-21; discussion 121-7, 160-4.	1.2	15
80	Hyperosmolar sodium-lactate in the ICU: vascular filling and cellular feeding. <i>Critical Care</i> , 2014, 18, 599.	2.5	14
81	Malnutrition and refeeding syndrome prevention in head and neck cancer patients: from theory to clinical application. <i>European Archives of Oto-Rhino-Laryngology</i> , 2018, 275, 1049-1058.	0.8	14
82	Mechanism of gluconeogenesis inhibition in rat hepatocytes isolated after in vivo hypoxia. <i>American Journal of Physiology - Endocrinology and Metabolism</i> , 1995, 268, E965-E973.	1.8	13
83	The mitochondrial consequences of uncoupling intact cells depend on the nature of the exogenous substrate. <i>Biochemical Journal</i> , 2001, 355, 231-235.	1.7	13
84	A relevant exposure to a food matrix contaminated environmentally by polychlorinated biphenyls induces liver and brain disruption in rats. <i>Chemosphere</i> , 2016, 161, 80-88.	4.2	13
85	Wheat aleurone polyphenols increase plasma eicosapentaenoic acid in rats. <i>Food and Nutrition Research</i> , 2014, 58, 24604.	1.2	13
86	Reduced lactic acidosis risk with Imeglimin: Comparison with Metformin. <i>Physiological Reports</i> , 2022, 10, e15151.	0.7	13
87	Flux-force relationships in intact cells: a helpful tool for understanding the mechanism of oxidative phosphorylation alterations?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1998, 1365, 117-124.	0.5	12
88	Metformin overdose: time to move on. <i>Critical Care</i> , 2012, 16, 164.	2.5	12
89	Effects of glycemic control on glucose utilization and mitochondrial respiration during resuscitated murine septic shock. <i>Intensive Care Medicine Experimental</i> , 2014, 2, 19.	0.9	12
90	Nutrition and physical activity: French intergroup clinical practice guidelines for diagnosis, treatment and follow-up (SNFGE, FFCD, GERCOR, UNICANCER, SFCD, SFED, SFRO, ACHBT, AFC, SFP-APA,) Tj ETQq0030 rgBT 10verlock 1		

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91	Exogenous Mg-ATP Induces a Large Inhibition of Pyruvate Kinase in Intact Rat Hepatocytes. <i>Journal of Biological Chemistry</i> , 2001, 276, 6398-6403.	1.6	11
92	Imeglimin Protects INS-1 Cells and Human Islets against High Glucose and High Fructose-Induced Cell Death by Inhibiting the Mitochondrial PTP Opening. <i>Diabetes</i> , 2018, 67, .	0.3	10
93	Effects of Cyclosporine A in <i>Ex Vivo</i> Reperfused Pig Lungs. <i>Microcirculation</i> , 2014, 21, 84-92.	1.0	9
94	Effects of cyclosporine A pretreatment of deceased organ donors on kidney graft function (Cis-A-rein): study protocol for a randomized controlled trial. <i>Trials</i> , 2018, 19, 231.	0.7	9
95	Food intake and weight loss of surviving inpatients in the course of COVID-19 infection: A longitudinal study of the multicenter NutriCovid30 cohort. <i>Nutrition</i> , 2022, 93, 111433.	1.1	9
96	The mitochondrial consequences of uncoupling intact cells depend on the nature of the exogenous substrate. <i>Biochemical Journal</i> , 2001, 355, 231.	1.7	8
97	Quantitative analysis of some mechanisms affecting the yield of oxidative phosphorylation: dependence upon both fluxes and forces. <i>Molecular and Cellular Biochemistry</i> , 1998, 184, 35-52.	1.4	8
98	Maternal exercise before and during gestation modifies liver and muscle mitochondria in rat offspring. <i>Journal of Experimental Biology</i> , 2019, 222, .	0.8	7
99	Direct or indirect regulation of muscle protein synthesis by energy status?. <i>Clinical Nutrition</i> , 2021, 40, 1893-1896.	2.3	6
100	Cellular uptake of <sup>99m</sup> TcN-NOET in human leukaemic HL-60 cells is related to calcium channel activation and cell proliferation. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2006, 33, 66-72.	3.3	4
101	Protection of PC12 cells from cocaine-induced cell death by inhibiting mitochondrial permeability transition. <i>Neurochemistry International</i> , 2017, 109, 34-40.	1.9	4
102	Optimal energy delivery and measured energy expenditure impact of length of stay. <i>Critical Care</i> , 2017, 21, 39.	2.5	4
103	Place des anti-oxydants dans la nutrition du patient septique Antioxidants in critically ill patients.. <i>Reanimation: Journal De La Societe De Reanimation De Langue Francaise</i> , 2002, 11, 411-420.	0.1	3
104	Octanoate Affects 2,4-Dinitrophenol Uncoupling in Intact Isolated Rat Hepatocytes. <i>FEBS Journal</i> , 1995, 231, 498-502.	0.2	3
105	Liver mitochondrial function in ZDF rats during the early stages of diabetes disease. <i>Physiological Reports</i> , 2016, 4, e12686.	0.7	3
106	Preventing cell death with a "check valve"™ in mitochondrial complex I?. <i>Cell Death and Disease</i> , 2016, 7, e2165-e2165.	2.7	3
107	New Automatized Method of 3D Multiculture Viability Analysis Based on Confocal Imagery: Application to Islets and Mesenchymal Stem Cells Co-Encapsulation. <i>Frontiers in Endocrinology</i> , 2018, 9, 272.	1.5	3
108	État des lieux des pratiques alimentaires et régimes dans les établissements de santé français: enquête nationale 2017. <i>Nutrition Clinique Et Metabolisme</i> , 2019, 33, 131-138.	0.2	3

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109	An in vitro explant model for studies of intestinal amino acid metabolism. <i>Clinical Nutrition Experimental</i> , 2020, 29, 1-9.	2.0	3
110	Regulation of citrulline synthesis in human enterocytes: Role of hypoxia and inflammation. <i>BioFactors</i> , 2022, 48, 181-189.	2.6	3
111	Arbre d'Écisionnel pour la prise en charge nutritionnelle des patients en Soins Palliatifs. <i>Medecine Palliative</i> , 2004, 3, 311-315.	0.0	2
112	Basics in clinical nutrition: Metabolic response to hypoxia. <i>European E-journal of Clinical Nutrition and Metabolism</i> , 2008, 3, e285-e288.	0.4	2
113	Exemples de prescription de nutrition parentÉrale. <i>Nutrition Clinique Et Metabolisme</i> , 1999, 13, 43s-46s.	0.2	1
114	Cellular Energy Metabolism and Integrated Oxidative Phosphorylation. , 0, , 9-27.		1
115	Diagnosing undernutrition children and adults: new French criteria. Why, for what and for whom? A joint statement of the French National Authority for Health and French Federation of Nutrition. <i>British Journal of Nutrition</i> , 2021, , 1-13.	1.2	1
116	Correlation between Degree of Rupture of Outer Mitochondrial Membrane and Changes of Kinetics of Regulation of Respiration by ADP in Permeabilized Heart and Liver Cells. <i>Biochemical and Biophysical Research Communications</i> , 1995, 211, 1099.	1.0	0
117	How Valid Is the Concept of Antioxidants and Cell Injury?. , 2002, 7, 67-85.		0
118	Radicaux libres et vieillissement. <i>Cahiers De Nutrition Et De Dietetique</i> , 2007, 42, 110-115.	0.2	0
119	PSU11 Medico-Economic Analysis of the Impact of Malnutrition on the Post-Operative Course of Colorectal Cancer Patients. <i>Value in Health</i> , 2011, 14, A262.	0.1	0
120	IntÉrêt du régime méditerranÉen : extrapolation É la nutrition entÉrale au long cours. <i>Nutrition Clinique Et Metabolisme</i> , 2011, 25, S7-S9.	0.2	0
121	Inhibition of complex I regulates the mitochondrial permeability transition through a phosphate-sensitive inhibitory site masked by cyclophilin D. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2012, 1817, S53.	0.5	0
122	Lethal and Nonlethal Functions of the Permeability Transition Pore. , 2016, , 1-15.		0
123	Is There a Place for Repeat Lymphangiography in Postoperative Chylous Ascites?. <i>CardioVascular and Interventional Radiology</i> , 2018, 41, 1633-1635.	0.9	0
124	On the regulation of cellular energetics in health and disease. , 1996, , 195-208.		0
125	Quantitative analysis of some mechanisms affecting the yield of oxidative phosphorylation: Dependence upon both fluxes and forces. , 1998, , 35-52.		0