Deborah M Muoio

List of Publications by Year
in descending order

127	16,354	18482 62	17592 121
papers	citations	h-index	g-index

128	128	128	21318
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nicotinamide riboside supplementation confers marginal metabolic benefits in obese mice without remodeling the muscle acetyl-proteome. IScience, 2022, 25, 103635.	4.1	11
2	Disruption of STIM1-mediated Ca2+ sensing and energy metabolism in adult skeletal muscle compromises exercise tolerance, proteostasis, and lean mass. Molecular Metabolism, 2022, 57, 101429.	6.5	6
3	Proteomics and phosphoproteomics datasets of a muscle-specific STIM1 loss-of-function mouse model. Data in Brief, 2022, 42, 108051.	1.0	3
4	Rheumatoid arthritis T cell and muscle oxidative metabolism associate with exercise-induced changes in cardiorespiratory fitness. Scientific Reports, 2022, 12, 7450.	3.3	9
5	Mitochondrial lysine acylation and cardiometabolic stress: Truth or consequence?. Current Opinion in Physiology, 2022, , 100551.	1.8	1
6	Myocardial Lipin 1 knockout in mice approximates cardiac effects of human LPIN1 mutations. JCI Insight, 2021, 6, .	5.0	12
7	Desmin interacts with STIM1 and coordinates Ca2+ signaling in skeletal muscle. JCI Insight, 2021, 6, .	5.0	12
8	Disruption of Acetyl-Lysine Turnover in Muscle Mitochondria Promotes Insulin Resistance and Redox Stress without Overt Respiratory Dysfunction. Cell Metabolism, 2020, 31, 131-147.e11.	16.2	41
9	Extreme Acetylation of the Cardiac Mitochondrial Proteome Does Not Promote Heart Failure. Circulation Research, 2020, 127, 1094-1108.	4.5	54
10	Muscle-Liver Trafficking of BCAA-Derived Nitrogen Underlies Obesity-Related Glycine Depletion. Cell Reports, 2020, 33, 108375.	6.4	49
11	Nutritional modulation of heart failure in mitochondrial pyruvate carrierâ€“deficient mice. Nature Metabolism, 2020, 2, 1232-1247.	11.9	74
12	Rejuvenation of Neutrophil Functions in Association With Reduced Diabetes Risk Following Ten Weeks of Low-Volume High Intensity Interval Walking in Older Adults With Prediabetes â€“ A Pilot Study. Frontiers in Immunology, 2020, 11, 729.	4.8	23
13	Macrophage Metabolism of Apoptotic Cell-Derived Arginine Promotes Continual Efferocytosis and Resolution of Injury. Cell Metabolism, 2020, 31, 518-533.e10.	16.2	235
14	Carnitine supplementation improves metabolic flexibility and skeletal muscle acetylcarnitine formation in volunteers with impaired glucose tolerance: A randomised controlled trial. EBioMedicine, 2019, 49, 318-330.	6.1	48
15	Increased ketone body oxidation provides additional energy for the failing heart without improving cardiac efficiency. Cardiovascular Research, 2019, 115, 1606-1616.	3.8	114
16	Respiratory Phenomics across Multiple Models of Protein Hyperacylation in Cardiac Mitochondria Reveals a Marginal Impact on Bioenergetics. Cell Reports, 2019, 26, 1557-1572.e8.	6.4	39
17	Systematic Dissection of the Metabolic-Apoptotic Interface in AML Reveals Heme Biosynthesis to Be a Regulator of Drug Sensitivity. Cell Metabolism, 2019, 29, 1217-1231.e7.	16.2	75
18	Electrical stimulation increases hypertrophy and metabolic flux in tissue-engineered human skeletal muscle. Biomaterials, 2019, 198, 259-269.	11.4	121

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19	Creation of versatile cloning platforms for transgene expression and dCas9-based epigenome editing. Nucleic Acids Research, 2019, 47, e23-e23.	14.5	27
20	The failing heart utilizes 3-hydroxybutyrate as a metabolic stress defense. JCI Insight, 2019, 4, .	5.0	218
21	Abstract P284: The Chemotherapeutic Agent Docetaxel Disrupts Mitochondrial Energetics in 3D Human Bioengineered Myobundles. Circulation, 2019, 139, .	1.6	0
22	Mitochondrial Diagnostics: A Multiplexed Assay Platform for Comprehensive Assessment of Mitochondrial Energy Fluxes. Cell Reports, 2018, 24, 3593-3606.e10.	6.4	87
23	Propionate-induced changes in cardiac metabolism, notably CoA trapping, are not altered by<scp>l</scp>-carnitine. American Journal of Physiology - Endocrinology and Metabolism, 2018, 315, E622-E633.	3.5	36
24	Physiological mechanisms of sustained fumagillin-induced weight loss. JCI Insight, 2018, 3, .	5.0	8
25	Molecular alterations in skeletal muscle in rheumatoid arthritis are related to disease activity, physical inactivity, and disability. Arthritis Research and Therapy, 2017, 19, 12.	3.5	63
26	HDAC3 sets the timer on muscle fuel switching. Nature Medicine, 2017, 23, 148-150.	30.7	1
27	Bicarbonate alters cellular responses in respiration assays. Biochemical and Biophysical Research Communications, 2017, 489, 399-403.	2.1	11
28	SIRT4 Is a Lysine Deacylase that Controls Leucine Metabolism and Insulin Secretion. Cell Metabolism, 2017, 25, 838-855.e15.	16.2	259
29	Metabolomic analysis of insulin resistance across different mouse strains and diets. Journal of Biological Chemistry, 2017, 292, 19135-19145.	3.4	36
30	Comprehensive metabolic modeling of multiple¹³C-isotopomer data sets to study metabolism in perfused working hearts. American Journal of Physiology - Heart and Circulatory Physiology, 2016, 311, H881-H891.	3.2	20
31	Plasma acylcarnitines during insulin stimulation in humans are reflective of age-related metabolic dysfunction. Biochemical and Biophysical Research Communications, 2016, 479, 868-874.	2.1	16
32	The Failing Heart Relies on Ketone Bodies as a Fuel. Circulation, 2016, 133, 698-705.	1.6	506
33	The Acetyl Group Buffering Action of Carnitine Acetyltransferase Offsets Macronutrient-Induced Lysine Acetylation of Mitochondrial Proteins. Cell Reports, 2016, 14, 243-254.	6.4	77
34	Mitochondrial protein hyperacetylation in the failing heart. JCI Insight, 2016, 1, .	5.0	133
35	ACLY and ACC1 Regulate Hypoxia-Induced Apoptosis by Modulating ETV4 via Î±-ketoglutarate. PLoS Genetics, 2015, 11, e1005599.	3.5	36
36	Understanding the Cellular and Molecular Mechanisms of Physical Activity-Induced Health Benefits. Cell Metabolism, 2015, 22, 4-11.	16.2	345

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37	Carnitine Acetyltransferase Mitigates Metabolic Inertia and Muscle Fatigue during Exercise. Cell Metabolism, 2015, 22, 65-76.	16.2	78
38	Metabolomic analysis reveals altered skeletal muscle amino acid and fatty acid handling in obese humans. Obesity, 2015, 23, 981-988.	3.0	53
39	Pyruvate dehydrogenase complex and nicotinamide nucleotide transhydrogenase constitute an energy-consuming redox circuit. Biochemical Journal, 2015, 467, 271-280.	3.7	103
40	SIRT3 Directs Carbon Traffic in Muscle to Promote Glucose Control. Diabetes, 2015, 64, 3058-3060.	0.6	8
41	Increased palmitate intake: higher acylcarnitine concentrations without impaired progression of Î²-oxidation. Journal of Lipid Research, 2015, 56, 1795-1807.	4.2	4
42	Harnessing the Power of Integrated Mitochondrial Biology and Physiology. Circulation Research, 2015, 117, 234-238.	4.5	9
43	Metabolic Catastrophe in Mice Lacking Transferrin Receptor in Muscle. EBioMedicine, 2015, 2, 1705-1717.	6.1	62
44	Muscle-Specific Overexpression of PGC-1Î± Does Not Augment Metabolic Improvements in Response to Exercise and Caloric Restriction. Diabetes, 2015, 64, 1532-1543.	0.6	40
45	Compartmentalized Acyl-CoA Metabolism in Skeletal Muscle Regulates Systemic Glucose Homeostasis. Diabetes, 2015, 64, 23-35.	0.6	97
46	Metabolomic Quantitative Trait Loci (mQTL) Mapping Implicates the Ubiquitin Proteasome System in Cardiovascular Disease Pathogenesis. PLoS Genetics, 2015, 11, e1005553.	3.5	81
47	Metabolic Inflexibility: When Mitochondrial Indecision Leads to Metabolic Gridlock. Cell, 2014, 159, 1253-1262.	28.9	291
48	A Role for Peroxisome Proliferator-Activated Receptor Î³ Coactivator-1 in the Control of Mitochondrial Dynamics During Postnatal Cardiac Growth. Circulation Research, 2014, 114, 626-636.	4.5	182
49	Treatment with the 3-Ketoacyl-CoA Thiolase Inhibitor Trimetazidine Does Not Exacerbate Whole-Body Insulin Resistance in Obese Mice. Journal of Pharmacology and Experimental Therapeutics, 2014, 349, 487-496.	2.5	17
50	The good in fat. Nature, 2014, 516, 49-50.	27.8	12
51	Energy Metabolic Reprogramming in the Hypertrophied and Early Stage Failing Heart. Circulation: Heart Failure, 2014, 7, 1022-1031.	3.9	233
52	Metabolite signatures of exercise training in human skeletal muscle relate to mitochondrial remodelling and cardiometabolic fitness. Diabetologia, 2014, 57, 2282-2295.	6.3	121
53	Targeted Metabolomics Connects Thioredoxin-interacting Protein (TXNIP) to Mitochondrial Fuel Selection and Regulation of Specific Oxidoreductase Enzymes in Skeletal Muscle. Journal of Biological Chemistry, 2014, 289, 8106-8120.	3.4	55
54	Dietary intake of palmitate and oleate has broad impact on systemic and tissue lipid profiles in humans. American Journal of Clinical Nutrition, 2014, 99, 436-445.	4.7	77

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55	Downregulation of Carnitine Acyl-Carnitine Translocase by miRNAs 132 and 212 Amplifies Glucose-Stimulated Insulin Secretion. Diabetes, 2014, 63, 3805-3814.	0.6	45
56	Obesity and lipid stress inhibit carnitine acetyltransferase activity. Journal of Lipid Research, 2014, 55, 635-644.	4.2	80
57	Longâ€“echo time MR spectroscopy for skeletal muscle acetylcarnitine detection. Journal of Clinical Investigation, 2014, 124, 4915-4925.	8.2	54
58	PPARÎ³ coactivator-1Î± contributes to exercise-induced regulation of intramuscular lipid droplet programming in mice and humans. Journal of Lipid Research, 2013, 54, 522-534.	4.2	89
59	Highlights of the 2012 Research Workshop. Journal of Parenteral and Enteral Nutrition, 2013, 37, 190-200.	2.6	11
60	Glycerol-3-phosphate Acyltransferase (GPAT)-1, but Not GPAT4, Incorporates Newly Synthesized Fatty Acids into Triacylglycerol and Diminishes Fatty Acid Oxidation. Journal of Biological Chemistry, 2013, 288, 27299-27306.	3.4	72
61	Ectopic lipid deposition and the metabolic profile of skeletal muscle in ovariectomized mice. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2013, 304, R206-R217.	1.8	27
62	Genome-wide Chromatin State Transitions Associated with Developmental and Environmental Cues. Cell, 2013, 152, 642-654.	28.9	473
63	SIRT4 Coordinates the Balance between Lipid Synthesis and Catabolism by Repressing Malonyl CoA Decarboxylase. Molecular Cell, 2013, 50, 686-698.	9.7	315
64	A Lipidomics Analysis of the Relationship Between Dietary Fatty Acid Composition and Insulin Sensitivity in Young Adults. Diabetes, 2013, 62, 1054-1063.	0.6	107
65	Substituting dietary monounsaturated fat for saturated fat is associated with increased daily physical activity and resting energy expenditure and with changes in mood. American Journal of Clinical Nutrition, 2013, 97, 689-697.	4.7	61
66	Substituting dietary monounsaturated fat for saturated fat is associated with increased daily physical activity and resting energy expenditure and with changes in mood. FASEB Journal, 2013, 27, 1068.1.	0.5	0
67	Distinct roles of specific fatty acids in cellular processes: implications for interpreting and reporting experiments. American Journal of Physiology - Endocrinology and Metabolism, 2012, 302, E1-E3.	3.5	46
68	Identification of a novel malonyl-CoA IC50 for CPT-I: implications for predicting inÂvivo fatty acid oxidation rates. Biochemical Journal, 2012, 448, 13-20.	3.7	36
69	Muscle-Specific Deletion of Carnitine Acetyltransferase Compromises Glucose Tolerance and Metabolic Flexibility. Cell Metabolism, 2012, 15, 764-777.	16.2	307
70	Lipid-Induced Mitochondrial Stress and Insulin Action in Muscle. Cell Metabolism, 2012, 15, 595-605.	16.2	294
71	Revisiting the connection between intramyocellular lipids and insulin resistance: a long and winding road. Diabetologia, 2012, 55, 2551-2554.	6.3	38
72	Mitochondrial stress and metabolic dysfunction in skeletal muscle. FASEB Journal, 2012, 26, 221.2.	0.5	0

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73	Caloric restriction, aerobic exercise or a combination improves metabolic profiles following dietâ€induced obesity. FASEB Journal, 2012, 26, 1142.19.	0.5	0
74	Shortâ€Term Effects of Dietary Fatty Acids on Muscle Lipid Composition and Serum Acylcarnitine Profile in Human Subjects. Obesity, 2011, 19, 305-311.	3.0	54
75	A High-Fat Diet Elicits Differential Responses in Genes Coordinating Oxidative Metabolism in Skeletal Muscle of Lean and Obese Individuals. Journal of Clinical Endocrinology and Metabolism, 2011, 96, 775-781.	3.6	62
76	Mouse Cardiac Acyl Coenzyme A Synthetase 1 Deficiency Impairs Fatty Acid Oxidation and Induces Cardiac Hypertrophy. Molecular and Cellular Biology, 2011, 31, 1252-1262.	2.3	156
77	Metabolic Remodeling of Human Skeletal Myocytes by Cocultured Adipocytes Depends on the Lipolytic State of the System. Diabetes, 2011, 60, 1882-1893.	0.6	40
78	Re-patterning of Skeletal Muscle Energy Metabolism by Fat Storage-inducing Transmembrane Protein 2. Journal of Biological Chemistry, 2011, 286, 42188-42199.	3.4	28
79	Metabolism and Vascular Fatty Acid Transport. New England Journal of Medicine, 2010, 363, 291-293.	27.0	11
80	Peroxisome Proliferatorâ€“Activated Receptor-Î³ Coactivator-1Î± Overexpression Increases Lipid Oxidation in Myocytes From Extremely Obese Individuals. Diabetes, 2010, 59, 1407-1415.	0.6	55
81	Inhibition of De Novo Ceramide Synthesis Reverses Diet-Induced Insulin Resistance and Enhances Whole-Body Oxygen Consumption. Diabetes, 2010, 59, 2453-2464.	0.6	296
82	Alterations in Skeletal Muscle Fatty Acid Handling Predisposes Middle-Aged Mice to Diet-Induced Insulin Resistance. Diabetes, 2010, 59, 1366-1375.	0.6	60
83	Metabolic profiling of muscle contraction in lean compared with obese rodents. American Journal of Physiology - Regulatory Integrative and Comparative Physiology, 2010, 299, R926-R934.	1.8	18
84	Lipid Partitioning, Incomplete Fatty Acid Oxidation, and Insulin Signal Transduction in Primary Human Muscle Cells: Effects of Severe Obesity, Fatty Acid Incubation, and Fatty Acid Translocase/CD36 Overexpression. Journal of Clinical Endocrinology and Metabolism, 2010, 95, 3400-3410.	3.6	71
85	Intramuscular triacylglycerol and insulin resistance: Guilty as charged or wrongly accused?. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 281-288.	2.4	125
86	Adipose Acyl-CoA Synthetase-1 Directs Fatty Acids toward Î²-Oxidation and Is Required for Cold Thermogenesis. Cell Metabolism, 2010, 12, 53-64.	16.2	277
87	Lactic Acidosis Triggers Starvation Response with Paradoxical Induction of TXNIP through MondoA. PLoS Genetics, 2010, 6, e1001093.	3.5	110
88	The STEDMAN Project: Biophysical, Biochemical and Metabolic Effects of a Behavioral Weight Loss Intervention during Weight Loss, Maintenance, and Regain. OMICS A Journal of Integrative Biology, 2009, 13, 21-35.	2.0	81
89	Insulin-Stimulated Cardiac Glucose Oxidation Is Increased in High-Fat Dietâ€“Induced Obese Mice Lacking Malonyl CoA Decarboxylase. Diabetes, 2009, 58, 1766-1775.	0.6	116
90	Metabolomics Applied to Diabetes Research. Diabetes, 2009, 58, 2429-2443.	0.6	346

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91	Metabolic profiling of PPARÎ± ^{â^'/â^'} mice reveals defects in carnitine and amino acid homeostasis that are partially reversed by oral carnitine supplementation. FASEB Journal, 2009, 23, 586-604.	0.5	101
92	Increased Insulin Sensitivity in Mice Lacking Collectrin, a Downstream Target of HNF-1Î±. Molecular Endocrinology, 2009, 23, 881-892.	3.7	24
93	Liver-specific Loss of Long Chain Acyl-CoA Synthetase-1 Decreases Triacylglycerol Synthesis and Î²-Oxidation and Alters Phospholipid Fatty Acid Composition. Journal of Biological Chemistry, 2009, 284, 27816-27826.	3.4	188
94	Carnitine Insufficiency Caused by Aging and Overnutrition Compromises Mitochondrial Performance and Metabolic Control. Journal of Biological Chemistry, 2009, 284, 22840-22852.	3.4	271
95	Molecular and metabolic mechanisms of insulin resistance and Î²-cell failure in type 2 diabetes. Nature Reviews Molecular Cell Biology, 2008, 9, 193-205.	37.0	1,006
96	Mitochondrial Overload and Incomplete Fatty Acid Oxidation Contribute to Skeletal Muscle Insulin Resistance. Cell Metabolism, 2008, 7, 45-56.	16.2	1,618
97	Fatty Acid Oxidation and Insulin Action. Diabetes, 2008, 57, 1455-1456.	0.6	62
98	Glucose sensing by MondoA:Mlx complexes: A role for hexokinases and direct regulation of thioredoxin-interacting protein expression. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 6912-6917.	7.1	238
99	Fatty acid transporter expression in human myocytes. FASEB Journal, 2008, 22, 936.12.	0.5	0
100	Metabolic Mechanisms of Muscle Insulin Resistance. , 2008, , 35-47.		1
101	Contraction of insulin-resistant muscle normalizes insulin action in association with increased mitochondrial activity and fatty acid catabolism. American Journal of Physiology - Cell Physiology, 2007, 292, C729-C739.	4.6	77
102	TXNIP Links Redox Circuitry to Glucose Control. Cell Metabolism, 2007, 5, 412-414.	16.2	67
103	Skeletal muscle adaptation to fatty acid depends on coordinated actions of the PPARs and PGC1Î±: implications for metabolic disease. Applied Physiology, Nutrition and Metabolism, 2007, 32, 874-883.	1.9	103
104	Carnitine revisited: potential use as adjunctive treatment in diabetes. Diabetologia, 2007, 50, 824-832.	6.3	99
105	Lipid-Induced Metabolic Dysfunction in Skeletal Muscle. Novartis Foundation Symposium, 2007, 286, 24-46.	1.1	43
106	Regulation of FAT/CD36 expression in human skeletal muscle. FASEB Journal, 2007, 21, A1302.	0.5	1
107	Receptor-Selective Coactivators as Tools to Define the Biology of Specific Receptor-Coactivator Pairs. Molecular Cell, 2006, 24, 797-803.	9.7	65
108	Obesity-Related Derangements in Metabolic Regulation. Annual Review of Biochemistry, 2006, 75, 367-401.	11.1	314

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109	Glucose Uptake in Muscle Cell Cultures from Endurance-Trained Men. Medicine and Science in Sports and Exercise, 2005, 37, 579-584.	0.4	8
110	A is for adipokine. Nature, 2005, 436, 337-338.	27.8	75
111	Subsarcolemmal and intermyofibrillar mitochondria play distinct roles in regulating skeletal muscle fatty acid metabolism. American Journal of Physiology - Cell Physiology, 2005, 288, C1074-C1082.	4.6	135
112	Peroxisome Proliferator-activated Receptor-Î³ Co-activator 1Î±-mediated Metabolic Remodeling of Skeletal Myocytes Mimics Exercise Training and Reverses Lipid-induced Mitochondrial Inefficiency. Journal of Biological Chemistry, 2005, 280, 33588-33598.	3.4	416
113	Mitochondrial Glycerol-3-phosphate Acyltransferase-1 Is Essential inLiver for the Metabolism of ExcessAcyl-CoAs. Journal of Biological Chemistry, 2005, 280, 25629-25636.	3.4	91
114	Elevated stearoyl-CoA desaturase-1 expression in skeletal muscle contributes to abnormal fatty acid partitioning in obese humans. Cell Metabolism, 2005, 2, 251-261.	16.2	326
115	Hepatic expression of malonyl-CoA decarboxylase reverses muscle, liver and whole-animal insulin resistance. Nature Medicine, 2004, 10, 268-274.	30.7	414
116	BIOMEDICINE: Insulin Resistance Takes a Trip Through the ER. Science, 2004, 306, 425-426.	12.6	39
117	Peroxisome Proliferator-Activated Receptor-Â Regulates Fatty Acid Utilization in Primary Human Skeletal Muscle Cells. Diabetes, 2002, 51, 901-909.	0.6	208
118	Fatty Acid Homeostasis and Induction of Lipid Regulatory Genes in Skeletal Muscles of Peroxisome Proliferator-activated Receptor (PPAR) Î± Knock-out Mice. Journal of Biological Chemistry, 2002, 277, 26089-26097.	3.4	360
119	Peripheral metabolic actions of leptin. Best Practice and Research in Clinical Endocrinology and Metabolism, 2002, 16, 653-666.	4.7	147
120	Evidence of a malonyl-CoA-insensitive carnitine palmitoyltransferase I activity in red skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2002, 282, E1014-E1022.	3.5	65
121	Acyl-CoAs are functionally channeled in liver: potential role of acyl-CoA synthetase. American Journal of Physiology - Endocrinology and Metabolism, 2000, 279, E1366-E1373.	3.5	44
122	Energy Metabolism in Uncoupling Protein 3 Gene Knockout Mice. Journal of Biological Chemistry, 2000, 275, 16258-16266.	3.4	592
123	Physiological and Nutritional Regulation of Enzymes of Triacylglycerol Synthesis. Annual Review of Nutrition, 2000, 20, 77-103.	10.1	293
124	Leptin opposes insulinâ€™s effects on fatty acid partitioning in muscles isolated from obese ob/obmice. American Journal of Physiology - Endocrinology and Metabolism, 1999, 276, E913-E921.	3.5	73
125	AMP-activated kinase reciprocally regulates triacylglycerol synthesis and fatty acid oxidation in liver and muscle: evidence that sn-glycerol-3-phosphate acyltransferase is a novel target. Biochemical Journal, 1999, 338, 783.	3.7	96
126	AMP-activated kinase reciprocally regulates triacylglycerol synthesis and fatty acid oxidation in liver and muscle: evidence that sn-glycerol-3-phosphate acyltransferase is a novel target. Biochemical Journal, 1999, 338, 783-791.	3.7	365

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127	Skeletal muscle lipid metabolism: A frontier for new insights into fuel homeostasis. Journal of Nutritional Biochemistry, 1997, 8, 228-245.	4.2	37