Bruce M Spiegelman

List of Publications by Year in Descending Order

153 papers	70,843 citations	92 h-index	164 g-index
164 ext. papers	79,640 ext. citations	25.6 avg, IF	7.82 L-index

#	Paper	IF	Citations
153	Measurement of Futile Creatine Cycling Using Respirometry.. *Methods in Molecular Biology*, **2022**, 2448, 141-153	1.4	0
152	SnapShot: Regulation and biology of PGC-1 *Cell*, **2022**, 185, 1444-1444.e1	56.2	2
151	Cysteine 253 of UCP1 regulates energy expenditure and sex-dependent adipose tissue inflammation. *Cell Metabolism*, **2021**,	24.6	6
150	Mitochondrial TNAP controls thermogenesis by hydrolysis of phosphocreatine. *Nature*, **2021**, 593, 580-585	50.4	19
149	Creatine kinase B controls futile creatine cycling in thermogenic fat. *Nature*, **2021**, 590, 480-485	50.4	33
148	Exercise hormone irisin is a critical regulator of cognitive function. *Nature Metabolism*, **2021**, 3, 1058-1070	14.6	21
147	Isthmin-1 is an adipokine that promotes glucose uptake and improves glucose tolerance and hepatic steatosis. *Cell Metabolism*, **2021**, 33, 1836-1852.e11	24.6	5
146	No evidence for brown adipose tissue activation after creatine supplementation in adult vegetarians. *Nature Metabolism*, **2021**, 3, 107-117	14.6	6
145	Facultative protein selenation regulates redox sensitivity, adipose tissue thermogenesis, and obesity. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 10789-10796	11.5	13
144	Meteorin-like facilitates skeletal muscle repair through a Stat3/IGF-1 mechanism. *Nature Metabolism*, **2020**, 2, 278-289	14.6	28
143	CD81 Controls Beige Fat Progenitor Cell Growth and Energy Balance via FAK Signaling. *Cell*, **2020**, 182, 563-577.e20	56.2	69
142	A Plasma Protein Network Regulates PM20D1 and N-Acyl Amino Acid Bioactivity. *Cell Chemical Biology*, **2020**, 27, 1130-1139.e4	8.2	4
141	Irisin directly stimulates osteoclastogenesis and bone resorption in vitro and in vivo. *ELife*, **2020**, 9,	8.9	25
140 T cells and adipocyte IL-17RC control fat innervation and thermogenesis. *Nature*, **2020**, 578, 610-614		50.4	49
139	Obesity-Linked PPAR S273 Phosphorylation Promotes Insulin Resistance through Growth Differentiation Factor 3. *Cell Metabolism*, **2020**, 32, 665-675.e6	24.6	20
138	Confounding issues in the "humanized" BAT of mice. *Nature Metabolism*, **2020**, 2, 303-304	14.6	7
137	An Evolutionarily Conserved uORF Regulates PGC1 and Oxidative Metabolism in Mice, Flies, and Bluefin Tuna. *Cell Metabolism*, **2019**, 30, 190-200.e6	24.6	19

136	Innervation of thermogenic adipose tissue via a calsyntenin´3Ê5100b axis. *Nature*, **2019**, 569, 229-235	50.4	67
135	H transport is an integral function of the mitochondrial ADP/ATP carrier. *Nature*, **2019**, 571, 515-520	50.4	96
134	Adipsin preserves beta cells in diabetic mice and associates with protection from type 2 diabetes in humans. *Nature Medicine*, **2019**, 25, 1739-1747	50.5	52
133	Irisin Mediates Effects on Bone via V Integrin Receptors. *FASEB Journal*, **2019**, 33, 15.2	0.9	
132	Ablation of adipocyte creatine transport impairs thermogenesis and causes diet-induced obesity. *Nature Metabolism*, **2019**, 1, 360-370	14.6	63
131	New Advances in Adaptive Thermogenesis: UCP1 and Beyond. *Cell Metabolism*, **2019**, 29, 27-37	24.6	230
130	Tumor-Derived Ligands Trigger Tumor Growth and Host Wasting via Differential MEK Activation. *Developmental Cell*, **2019**, 48, 277-286.e6	10.2	24
129	Noncanonical agonist PPARligands modulate the response to DNA damage and sensitize cancer cells to cytotoxic chemotherapy. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 561-566	11.5	32
128	Discovery of Hydrolysis-Resistant Isoindoline N-Acyl Amino Acid Analogues that Stimulate Mitochondrial Respiration. *Journal of Medicinal Chemistry*, **2018**, 61, 3224-3230	8.3	12
127	Brown Adipose Tissue Controls Skeletal Muscle Function via the Secretion of Myostatin. *Cell Metabolism*, **2018**, 28, 631-643.e3	24.6	87
126	Irisin Mediates Effects on Bone and Fat via V Integrin Receptors. *Cell*, **2018**, 175, 1756-1768.e17	56.2	207
125	Combined adult neurogenesis and BDNF mimic exercise effects on cognition in an Alzheimer mouse model. *Science*, **2018**, 361,	33.3	302
124	Ablation of PM20D1 reveals -acyl amino acid control of metabolism and nociception. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E6937-E6945	11.5	26
123	Do Adipocytes Emerge from Mural Progenitors?. *Cell Stem Cell*, **2017**, 20, 585-586	18	15
122	UCP1 deficiency causes brown fat respiratory chain depletion and sensitizes mitochondria to calcium overload-induced dysfunction. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 7981-7986	11.5	86
121	Mitochondrial Patch Clamp of Beige Adipocytes Reveals UCP1-Positive and UCP1-Negative Cells Both Exhibiting Futile Creatine Cycling. *Cell Metabolism*, **2017**, 25, 811-822.e4	24.6	132
120	Crosstalk between KCNK3-Mediated Ion Current and Adrenergic Signaling Regulates Adipose Thermogenesis and Obesity. *Cell*, **2017**, 171, 836-848.e13	56.2	41
119	Genetic Depletion of Adipocyte Creatine Metabolism Inhibits Diet-Induced Thermogenesis and Drives Obesity. *Cell Metabolism*, **2017**, 26, 660-671.e3	24.6	116

118	Mitochondrial reactive oxygen species and adipose tissue thermogenesis: Bridging physiology and mechanisms. *Journal of Biological Chemistry*, **2017**, 292, 16810-16816	5.4	54
117	Lysine-specific demethylase 1 promotes brown adipose tissue thermogenesis via repressing glucocorticoid activation. *Genes and Development*, **2016**, 30, 1822-36	12.6	58
116	Cell biology of fat storage. *Molecular Biology of the Cell*, **2016**, 27, 2523-7	3.5	104
115	CACHEXIA & BROWN FAT: A BURNING ISSUE IN CANCER. *Trends in Cancer*, **2016**, 2, 461-463	12.5	42
114	The Secreted Enzyme PM20D1 Regulates Lipidated Amino Acid Uncouplers of Mitochondria. *Cell*, **2016**, 166, 424-435	56.2	140
113	PTH/PTHrP Receptor Mediates Cachexia in Models of Kidney Failure and Cancer. *Cell Metabolism*, **2016**, 23, 315-23	24.6	154
112	A Secreted Slit2 Fragment Regulates Adipose Tissue Thermogenesis and Metabolic Function. *Cell Metabolism*, **2016**, 23, 454-66	24.6	92
111	Mitochondrial ROS regulate thermogenic energy expenditure and sulfenylation of UCP1. *Nature*, **2016**, 532, 112-6	50.4	251
110	The Cancer Drug Dasatinib Increases PGC-1 In Adipose Tissue but Has Adverse Effects on Glucose Tolerance in Obese Mice. *Endocrinology*, **2016**, 157, 4184-4191	4.8	1
109	The future of brown adipose tissues in the treatment of type 2 diabetes. *Diabetologia*, **2015**, 58, 1704-7	10.3	28
108	A creatine-driven substrate cycle enhances energy expenditure and thermogenesis in beige fat. *Cell* , **2015**, 163, 643-55	56.2	405
107	Detection and Quantitation of Circulating Human Irisin by Tandem Mass Spectrometry. *Cell Metabolism*, **2015**, 22, 734-740	24.6	310
106	Brown and Beige Fat: Physiological Roles beyond Heat Generation. *Cell Metabolism*, **2015**, 22, 546-59	24.6	545
105	An ERK/Cdk5 axis controls the diabetogenic actions of PPAR *Nature*, **2015**, 517, 391-5	50.4	196
104	Brown and Beige Fat: Molecular Parts of a Thermogenic Machine. *Diabetes*, **2015**, 64, 2346-51	0.9	171
103	Appearance and disappearance of the mRNA signature characteristic of Treg cells in visceral adipose tissue: age, diet, and PPAR effects. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 482-7	11.5	115
102	Combined training enhances skeletal muscle mitochondrial oxidative capacity independent of age. *Journal of Clinical Endocrinology and Metabolism*, **2015**, 100, 1654-63	5.6	70
101	A smooth muscle-like origin for beige adipocytes. *Cell Metabolism*, **2014**, 19, 810-20	24.6	294

100	What we talk about when we talk about fat. *Cell*, **2014**, 156, 20-44	56.2	1319
99	-Aminoisobutyric acid induces browning of white fat and hepatic -oxidation and is inversely correlated with cardiometabolic risk factors. *Cell Metabolism*, **2014**, 19, 96-108	24.6	369
98	G protein-coupled receptor 56 regulates mechanical overload-induced muscle hypertrophy. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 15756-61	11.5	73
97	Irisin ERKs the fat. *Diabetes*, **2014**, 63, 381-3	0.9	24
96	Thrap3 docks on phosphoserine 273 of PPAR and controls diabetic gene programming. *Genes and Development*, **2014**, 28, 2361-9	12.6	39
95	Adipsin is an adipokine that improves -cell function in diabetes. *Cell*, **2014**, 158, 41-53	56.2	217
94	Tumour-derived PTH-related protein triggers adipose tissue browning and cancer cachexia. *Nature*, **2014**, 513, 100-4	50.4	371
93	IRF4 is a key thermogenic transcriptional partner of PGC-1 *Cell*, **2014**, 158, 69-83	56.2	173
92	Response to Comment on Wu and Spiegelman. Irisin ERKs the fat. Diabetes 2014;63:381-383. *Diabetes*, **2014**, 63, e17	0.9	7
91	Meteorin-like is a hormone that regulates immune-adipose interactions to increase beige fat thermogenesis. *Cell*, **2014**, 157, 1279-1291	56.2	540
90	Ablation of PRDM16 and beige adipose causes metabolic dysfunction and a subcutaneous to visceral fat switch. *Cell*, **2014**, 156, 304-16	56.2	569
89	Exercise induces hippocampal BDNF through a PGC-1 FNDC5 pathway. *Cell Metabolism*, **2013**, 18, 649-59	24.6	656
88	Banting Lecture 2012: Regulation of adipogenesis: toward new therapeutics for metabolic disease. *Diabetes*, **2013**, 62, 1774-82	0.9	101
87	Fat cells directly sense temperature to activate thermogenesis. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 12480-5	11.5	183
86	Adaptive thermogenesis in adipocytes: is beige the new brown?. *Genes and Development*, **2013**, 27, 234-50	12.6	585
85	A novel PGC-1 isoform induced by resistance training regulates skeletal muscle hypertrophy. *FASEB Journal*, **2013**, 27, 940.18	0.9	1
84	A PGC-1 isoform induced by resistance training regulates skeletal muscle hypertrophy. *Cell*, **2012**, 151, 1319-31	56.2	431
83	TRPV4 is a regulator of adipose oxidative metabolism, inflammation, and energy homeostasis. *Cell*, **2012**, 151, 96-110	56.2	243

82	Zfp423 expression identifies committed preadipocytes and localizes to adipose endothelial and perivascular cells. *Cell Metabolism*, **2012**, 15, 230-9	24.6	308
81	FGF21 regulates PGC-1 and browning of white adipose tissues in adaptive thermogenesis. *Genes and Development*, **2012**, 26, 271-81	12.6	1033
80	Beige adipocytes are a distinct type of thermogenic fat cell in mouse and human. *Cell*, **2012**, 150, 366-76	56.2	2197
79	PPAR agonists induce a white-to-brown fat conversion through stabilization of PRDM16 protein. *Cell Metabolism*, **2012**, 15, 395-404	24.6	532
78	Elevated PGC-1 activity sustains mitochondrial biogenesis and muscle function without extending survival in a mouse model of inherited ALS. *Cell Metabolism*, **2012**, 15, 778-86	24.6	130
77	A novel therapeutic approach to treating obesity through modulation of TGF signaling. *Endocrinology*, **2012**, 153, 3133-46	4.8	80
76	A PGC1- dependent myokine that drives brown-fat-like development of white fat and thermogenesis. *Nature*, **2012**, 481, 463-8	50.4	2762
75	Development of insulin resistance in mice lacking PGC-1 in adipose tissues. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 9635-40	11.5	221
74	Bostr m et al. reply. *Nature*, **2012**, 488, E10-E11	50.4	13
73	PGC-1 coactivators and the regulation of skeletal muscle fiber-type determination. *Cell Metabolism*, **2011**, 13, 351	24.6	30
72	Antidiabetic actions of a non-agonist PPAR ligand blocking Cdk5-mediated phosphorylation. *Nature*, **2011**, 477, 477-81	50.4	404
71	Molecular mechanisms of cancer development in obesity. *Nature Reviews Cancer*, **2011**, 11, 886-95	31.3	606
70	Prdm16 determines the thermogenic program of subcutaneous white adipose tissue in mice. *Journal of Clinical Investigation*, **2011**, 121, 96-105	15.9	857
69	Transcriptional control of preadipocyte determination by Zfp423. *Nature*, **2010**, 464, 619-23	50.4	368
68	Anti-diabetic drugs inhibit obesity-linked phosphorylation of PPARgamma by Cdk5. *Nature*, **2010**, 466, 451-6	50.4	654
67	PGC-1alpha regulates a HIF2alpha-dependent switch in skeletal muscle fiber types. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 21866-71	11.5	98
66	Transcriptional Control of Brown Adipogenesis and Energy Homeostasis. *FASEB Journal*, **2010**, 24, 303.4	0.9	
65	Transcriptional control of brown adipocyte development and physiological function--of mice and men. *Genes and Development*, **2009**, 23, 788-97	12.6	220

64	Initiation of myoblast to brown fat switch by a PRDM16-C/EBP-beta transcriptional complex. *Nature*, **2009**, 460, 1154-8	50.4	528
63	PRDM16 controls a brown fat/skeletal muscle switch. *Nature*, **2008**, 454, 961-7	50.4	1645
62	Fat and beyond: the diverse biology of PPARgamma. *Annual Review of Biochemistry*, **2008**, 77, 289-312	29.1	1484
61	Regulation of the brown and white fat gene programs through a PRDM16/CtBP transcriptional complex. *Genes and Development*, **2008**, 22, 1397-409	12.6	340
60	Regression of drug-resistant lung cancer by the combination of rosiglitazone and carboplatin. *Clinical Cancer Research*, **2008**, 14, 6478-86	12.9	67
59	PGC-1 is required for exercise-induced mitochondrial biogenesis, but not fiber type transformation, in skeletal muscle. *FASEB Journal*, **2008**, 22, 754.17	0.9	
58	Synergy between PPARgamma ligands and platinum-based drugs in cancer. *Cancer Cell*, **2007**, 11, 395-406	24.3	112
57	PGC-1alpha regulates the neuromuscular junction program and ameliorates Duchenne muscular dystrophy. *Genes and Development*, **2007**, 21, 770-83	12.6	262
56	Skeletal muscle fiber-type switching, exercise intolerance, and myopathy in PGC-1alpha muscle-specific knock-out animals. *Journal of Biological Chemistry*, **2007**, 282, 30014-21	5.4	443
55	Transcriptional control of brown fat determination by PRDM16. *Cell Metabolism*, **2007**, 6, 38-54	24.6	827
54	Rb Intrinsically Promotes Erythropoiesis by Coupling Cell Cycle Exit with Mitochondrial Biogenesis.. *Blood*, **2007**, 110, 638-638	2.2	
53	Transcriptional control of mitochondrial energy metabolism through the PGC1 coactivators. *Novartis Foundation Symposium*, **2007**, 287, 60-3; discussion 63-9		98
52	Transcriptional control of energy homeostasis through the PGC1 coactivators. *Novartis Foundation Symposium*, **2007**, 286, 3-6; discusssion 6-12, 162-3, 196-203		28
51	PGC-1alpha protects skeletal muscle from atrophy by suppressing FoxO3 action and atrophy-specific gene transcription. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 16260-5	11.5	708
50	Peroxisome proliferator-activated receptor gamma coactivator 1 coactivators, energy homeostasis, and metabolism. *Endocrine Reviews*, **2006**, 27, 728-35	27.2	859
49	Complementary action of the PGC-1 coactivators in mitochondrial biogenesis and brown fat differentiation. *Cell Metabolism*, **2006**, 3, 333-41	24.6	469
48	Adipocytes as regulators of energy balance and glucose homeostasis. *Nature*, **2006**, 444, 847-53	50.4	1535
47	Transcriptional coactivator PGC-1 alpha controls the energy state and contractile function of cardiac muscle. *Cell Metabolism*, **2005**, 1, 259-71	24.6	532

46	p38 mitogen-activated protein kinase is the central regulator of cyclic AMP-dependent transcription of the brown fat uncoupling protein 1 gene. *Molecular and Cellular Biology*, **2004**, 24, 3057-67	4.8	410
45	Rosiglitazone versus placebo for men with prostate carcinoma and a rising serum prostate-specific antigen level after radical prostatectomy and/or radiation therapy. *Cancer*, **2004**, 101, 1569-74	6.4	116
44	Defects in adaptive energy metabolism with CNS-linked hyperactivity in PGC-1alpha null mice. *Cell*, **2004**, 119, 121-35	56.2	957
43	Biological control through regulated transcriptional coactivators. *Cell*, **2004**, 119, 157-67	56.2	279
42	Peroxisome proliferator-activated receptor-gamma coactivator 1 alpha (PGC-1 alpha): transcriptional coactivator and metabolic regulator. *Endocrine Reviews*, **2003**, 24, 78-90	27.2	1588
41	Use of the peroxisome proliferator-activated receptor (PPAR) gamma ligand troglitazone as treatment for refractory breast cancer: a phase II study. *Breast Cancer Research and Treatment*, **2003**, 79, 391-7	4.4	195
40	PGC-1alpha-responsive genes involved in oxidative phosphorylation are coordinately downregulated in human diabetes. *Nature Genetics*, **2003**, 34, 267-73	36.3	5810
39	Transcriptional co-activator PGC-1 alpha drives the formation of slow-twitch muscle fibres. *Nature*, **2002**, 418, 797-801	50.4	1962
38	C/EBPalpha induces adipogenesis through PPARgamma: a unified pathway. *Genes and Development* , **2002**, 16, 22-6	12.6	992
37	The role of PPAR-gamma in macrophage differentiation and cholesterol uptake. *Nature Medicine*, **2001**, 7, 41-7	50.5	427
36	Adipose tissue reduction in mice lacking the translational inhibitor 4E-BP1. *Nature Medicine*, **2001**, 7, 1128-32	50.5	310
35	Control of hepatic gluconeogenesis through the transcriptional coactivator PGC-1. *Nature*, **2001**, 413, 131-8	50.4	1480
34	CREB regulates hepatic gluconeogenesis through the coactivator PGC-1. *Nature*, **2001**, 413, 179-83	50.4	1107
33	Obesity and the regulation of energy balance. *Cell*, **2001**, 104, 531-43	56.2	1871
32	Towards a molecular understanding of adaptive thermogenesis. *Nature*, **2000**, 404, 652-60	50.4	1259
31	Molecular regulation of adipogenesis. *Annual Review of Cell and Developmental Biology*, **2000**, 16, 145-71	12.6	1031
30	Degradation of the peroxisome proliferator-activated receptor gamma is linked to ligand-dependent activation. *Journal of Biological Chemistry*, **2000**, 275, 18527-33	5.4	293
29	Modulation of estrogen receptor-alpha transcriptional activity by the coactivator PGC-1. *Journal of Biological Chemistry*, **2000**, 275, 16302-8	5.4	172

28	PAX8-PPARgamma1 fusion oncogene in human thyroid carcinoma [corrected]. *Science*, **2000**, 289, 1357-60	59.3	719
27	Transcriptional activation of adipogenesis. *Current Opinion in Cell Biology*, **1999**, 11, 689-94	9	115
26	PPAR gamma is required for the differentiation of adipose tissue in vivo and in vitro. *Molecular Cell*, **1999**, 4, 611-7	17.6	1587
25	Cross-regulation of C/EBP alpha and PPAR gamma controls the transcriptional pathway of adipogenesis and insulin sensitivity. *Molecular Cell*, **1999**, 3, 151-8	17.6	802
24	Loss-of-function mutations in PPAR gamma associated with human colon cancer. *Molecular Cell*, **1999**, 3, 799-804	17.6	438
23	Mechanisms controlling mitochondrial biogenesis and respiration through the thermogenic coactivator PGC-1. *Cell*, **1999**, 98, 115-24	56.2	3085
22	TNF-□and insulin resistance: Summary and future prospects **1998**, 182, 169-175		193
21	Differentiation and reversal of malignant changes in colon cancer through PPARgamma. *Nature Medicine*, **1998**, 4, 1046-52	50.5	867
20	Terminal differentiation of human breast cancer through PPAR gamma. *Molecular Cell*, **1998**, 1, 465-70	17.6	719
19	A cold-inducible coactivator of nuclear receptors linked to adaptive thermogenesis. *Cell*, **1998**, 92, 829-39	56.2	2982
18	c-Fos deficiency inhibits induction of mRNA for some, but not all, neurotransmitter biosynthetic enzymes by immobilization stress. *Journal of Neurochemistry*, **1998**, 70, 1935-40	6	14
17	Functional antagonism between CCAAT/Enhancer binding protein-alpha and peroxisome proliferator-activated receptor-gamma on the leptin promoter. *Journal of Biological Chemistry*, **1997**, 272, 5283-90	5.4	193
16	Opposing activities of c-Fos and Fra-2 on AP-1 regulated transcriptional activity in mouse keratinocytes induced to differentiate by calcium and phorbol esters. *Oncogene*, **1997**, 15, 1337-46	9.2	59
15	Regulation of alternative pathway activation and C3a production by adipose cells. *Obesity*, **1996**, 4, 521-32		32
14	Adipogenesis and obesity: rounding out the big picture. *Cell*, **1996**, 87, 377-89	56.2	1111
13	15-Deoxy-delta 12, 14-prostaglandin J2 is a ligand for the adipocyte determination factor PPAR gamma. *Cell*, **1995**, 83, 803-12	56.2	2642
12	Transgenic mouse models of disease: altering adipose tissue function in vivo. *Annals of the New York Academy of Sciences*, **1995**, 758, 297-313	6.5	2
11	Stimulation of adipogenesis in fibroblasts by PPAR gamma 2, a lipid-activated transcription factor. *Cell*, **1994**, 79, 1147-56	56.2	3010

10	Adipocyte-specific transcription factor ARF6 is a heterodimeric complex of two nuclear hormone receptors, PPAR gamma and RXR alpha. *Nucleic Acids Research*, **1994**, 22, 5628-34	20.1	318
9	Inhibition of complement alternative pathway in mice with Fab antibody to recombinant adipsin/factor D. *European Journal of Immunology*, **1993**, 23, 1389-92	6.1	13
8	Identification of a fat cell enhancer: analysis of requirements for adipose tissue-specific gene expression. *Journal of Cellular Biochemistry*, **1992**, 49, 219-24	4.7	62
7	DNA-binding activity of Jun is increased through its interaction with Fos. *Journal of Cellular Biochemistry*, **1990**, 42, 193-206	4.7	32
6	1-Butyryl-glycerol: a novel angiogenesis factor secreted by differentiating adipocytes. *Cell*, **1990**, 61, 223-30	56.2	110
5	Heparin potentiation of 3T3-adipocyte stimulated angiogenesis: mechanisms of action on endothelial cells. *Journal of Cellular Physiology*, **1986**, 127, 323-9	7	35
4	Chair's Introduction. *Novartis Foundation Symposium*,1-2		
3	PGC1 and Exercise Adaptations in Zebrafish		4
2	Transcriptional Control of Mitochondrial Energy Metabolism through the PGC1 Coactivators. *Novartis Foundation Symposium*,60-69		88
1	Transcriptional Control of Energy Homeostasis through the PGC1 Coactivators. *Novartis Foundation Symposium*,3-12		38