Michael W Schwartz

List of Publications by Citations

141 papers	25,914 citations	73 h-index	160 g-index
184 ext. papers	28,124 ext. citations	12.1 avg, IF	6.87 L-index

#	Paper	IF	Citations
141	Central nervous system control of food intake. *Nature*, **2000**, 404, 661-71	50.4	4703
140	Obesity is associated with hypothalamic injury in rodents and humans. *Journal of Clinical Investigation*, **2012**, 122, 153-62	15.9	1125
139	Signals that regulate food intake and energy homeostasis. *Science*, **1998**, 280, 1378-83	33.3	962
138	Coexpression of Agrp and NPY in fasting-activated hypothalamic neurons. *Nature Neuroscience*, **1998**, 1, 271-2	25.5	884
137	Cerebrospinal fluid leptin levels: relationship to plasma levels and to adiposity in humans. *Nature Medicine*, **1996**, 2, 589-93	50.5	833
136	STAT3 signalling is required for leptin regulation of energy balance but not reproduction. *Nature*, **2003**, 421, 856-9	50.4	813
135	Leptin increases hypothalamic pro-opiomelanocortin mRNA expression in the rostral arcuate nucleus. *Diabetes*, **1997**, 46, 2119-23	0.9	728
134	Diabetes, obesity, and the brain. *Science*, **2005**, 307, 375-9	33.3	657
133	Intracellular signalling. Key enzyme in leptin-induced anorexia. *Nature*, **2001**, 413, 794-5	50.4	541
132	Obesity and leptin resistance: distinguishing cause from effect. *Trends in Endocrinology and Metabolism*, **2010**, 21, 643-51	8.8	523
131	Insulin in the brain: a hormonal regulator of energy balance. *Endocrine Reviews*, **1992**, 13, 387-414	27.2	480
130	Hypothalamic proinflammatory lipid accumulation, inflammation, and insulin resistance in rats fed a high-fat diet. *American Journal of Physiology - Endocrinology and Metabolism*, **2009**, 296, E1003-12	6	415
129	Neurobiology of food intake in health and disease. *Nature Reviews Neuroscience*, **2014**, 15, 367-78	13.5	401
128	Melanocortin receptors in leptin effects. *Nature*, **1997**, 390, 349	50.4	400
127	Insulin activation of phosphatidylinositol 3-kinase in the hypothalamic arcuate nucleus: a key mediator of insulin-induced anorexia. *Diabetes*, **2003**, 52, 227-31	0.9	394
126	Genetic approaches to studying energy balance: perception and integration. *Nature Reviews Genetics*, **2002**, 3, 589-600	30.1	319
125	Evidence that the caudal brainstem is a target for the inhibitory effect of leptin on food intake. *Endocrinology*, **2002**, 143, 239-46	4.8	319

124	Insulin and leptin: dual adiposity signals to the brain for the regulation of food intake and body weight. *Brain Research*, **1999**, 848, 114-23	3.7	311
123	Insulin and leptin revisited: adiposity signals with overlapping physiological and intracellular signaling capabilities. *Frontiers in Neuroendocrinology*, **2003**, 24, 1-10	8.9	292
122	Is the energy homeostasis system inherently biased toward weight gain?. *Diabetes*, **2003**, 52, 232-8	0.9	292
121	Food intake and the regulation of body weight. *Annual Review of Psychology*, **2000**, 51, 255-77	26.1	270
120	Genetics and pathophysiology of human obesity. *Annual Review of Medicine*, **2003**, 54, 453-71	17.4	268
119	Insulin signaling in the central nervous system: a critical role in metabolic homeostasis and disease from C. elegans to humans. *Diabetes*, **2005**, 54, 1264-76	0.9	265
118	Obesity Pathogenesis: An Endocrine Society Scientific Statement. *Endocrine Reviews*, **2017**, 38, 267-296	27.2	264
117	Evidence that paraventricular nucleus oxytocin neurons link hypothalamic leptin action to caudal brain stem nuclei controlling meal size. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2004**, 287, R87-96	3.2	248
116	Leptin and the central nervous system control of glucose metabolism. *Physiological Reviews*, **2011**, 91, 389-411	47.9	245
115	Evidence that intestinal glucagon-like peptide-1 plays a physiological role in satiety. *Endocrinology*, **2009**, 150, 1680-7	4.8	235
114	Central insulin administration reduces neuropeptide Y mRNA expression in the arcuate nucleus of food-deprived lean (Fa/Fa) but not obese (fa/fa) Zucker rats. *Endocrinology*, **1991**, 128, 2645-7	4.8	232
113	Minireview: Inflammation and obesity pathogenesis: the hypothalamus heats up. *Endocrinology*, **2010**, 151, 4109-15	4.8	227
112	Seminars in medicine of the Beth Israel Deaconess Medical Center. Neuroendocrine responses to starvation and weight loss. *New England Journal of Medicine*, **1997**, 336, 1802-11	59.2	226
111	PI3K integrates the action of insulin and leptin on hypothalamic neurons. *Journal of Clinical Investigation*, **2005**, 115, 951-8	15.9	225
110	Cooperation between brain and islet in glucose homeostasis and diabetes. *Nature*, **2013**, 503, 59-66	50.4	220
109	Fibroblast growth factor 21 action in the brain increases energy expenditure and insulin sensitivity in obese rats. *Diabetes*, **2010**, 59, 1817-24	0.9	216
108	Long-term orexigenic effects of AgRP-(83---132) involve mechanisms other than melanocortin receptor blockade. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2000**, 279, R47-52	3.2	210
107	Model for the regulation of energy balance and adiposity by the central nervous system. *American Journal of Clinical Nutrition*, **1999**, 69, 584-96	7	205

106	Leptin action in the forebrain regulates the hindbrain response to satiety signals. *Journal of Clinical Investigation*, **2005**, 115, 703-10	15.9	190
105	Disproportionately elevated proinsulin in Pima Indians with noninsulin-dependent diabetes mellitus. *Journal of Clinical Endocrinology and Metabolism*, **1990**, 70, 1247-53	5.6	184
104	Reversal of cancer anorexia by blockade of central melanocortin receptors in rats. *Endocrinology*, **2001**, 142, 3292-301	4.8	180
103	Clinical review: Regulation of food intake, energy balance, and body fat mass: implications for the pathogenesis and treatment of obesity. *Journal of Clinical Endocrinology and Metabolism*, **2012**, 97, 745-55	5.6	176
102	Role of the CNS melanocortin system in the response to overfeeding. *Journal of Neuroscience*, **1999** , 19, 2362-7	6.6	172
101	Leptin receptor long-form splice-variant protein expression in neuron cell bodies of the brain and co-localization with neuropeptide Y mRNA in the arcuate nucleus. *Journal of Histochemistry and Cytochemistry*, **1999**, 47, 353-62	3.4	170
100	Insulin and its evolving partnership with leptin in the hypothalamic control of energy homeostasis. *Trends in Endocrinology and Metabolism*, **2004**, 15, 362-9	8.8	167
99	Leptin inhibits hypothalamic Npy and Agrp gene expression via a mechanism that requires phosphatidylinositol 3-OH-kinase signaling. *American Journal of Physiology - Endocrinology and Metabolism*, **2005**, 289, E1051-7	6	166
98	Hormones and diet, but not body weight, control hypothalamic microglial activity. *Glia*, **2014**, 62, 17-25	9	161
97	Hypothalamic melanin-concentrating hormone and estrogen-induced weight loss. *Journal of Neuroscience*, **2000**, 20, 8637-42	6.6	153
96	Peripheral oxytocin suppresses food intake and causes weight loss in diet-induced obese rats. *American Journal of Physiology - Endocrinology and Metabolism*, **2012**, 302, E134-44	6	149
95	Assessment of feeding behavior in laboratory mice. *Cell Metabolism*, **2010**, 12, 10-7	24.6	147
94	Leptin and insulin action in the central nervous system. *Nutrition Reviews*, **2002**, 60, S20-9; discussion S68-84, 85-7	6.4	147
93	FGF19 action in the brain induces insulin-independent glucose lowering. *Journal of Clinical Investigation*, **2013**, 123, 4799-808	15.9	147
92	Insulin action in the brain contributes to glucose lowering during insulin treatment of diabetes. *Cell Metabolism*, **2006**, 3, 67-73	24.6	141
91	Arcuate nucleus-specific leptin receptor gene therapy attenuates the obesity phenotype of Koletsky (fa(k)/fa(k)) rats. *Endocrinology*, **2003**, 144, 2016-24	4.8	140
90	Oxytocin innervation of caudal brainstem nuclei activated by cholecystokinin. *Brain Research*, **2003**, 993, 30-41	3.7	134
89	Parabrachial CGRP Neurons Control Meal Termination. *Cell Metabolism*, **2016**, 23, 811-20	24.6	132

88	Leptin activates a novel CNS mechanism for insulin-independent normalization of severe diabetic hyperglycemia. *Endocrinology*, **2011**, 152, 394-404	4.8	130
87	FoxO1 integrates direct and indirect effects of insulin on hepatic glucose production and glucose utilization. *Nature Communications*, **2015**, 6, 7079	17.4	127
86	Hypothalamic leptin signaling regulates hepatic insulin sensitivity via a neurocircuit involving the vagus nerve. *Endocrinology*, **2009**, 150, 4502-11	4.8	127
85	Expression of peroxisome proliferator-activated receptor-gamma in key neuronal subsets regulating glucose metabolism and energy homeostasis. *Endocrinology*, **2009**, 150, 707-12	4.8	117
84	Chronic oxytocin administration inhibits food intake, increases energy expenditure, and produces weight loss in fructose-fed obese rhesus monkeys. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2015**, 308, R431-8	3.2	110
83	Leptin deficiency causes insulin resistance induced by uncontrolled diabetes. *Diabetes*, **2010**, 59, 1626-34	6.9	109
82	Effect of intracerebroventricular alpha-MSH on food intake, adiposity, c-Fos induction, and neuropeptide expression. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2000**, 279, R695-703	3.2	108
81	Leptin deficiency induced by fasting impairs the satiety response to cholecystokinin. *Endocrinology*, **2000**, 141, 4442-8	4.8	104
80	Differential effect of fasting on hypothalamic expression of genes encoding neuropeptide Y, galanin, and glutamic acid decarboxylase. *Brain Research Bulletin*, **1993**, 31, 361-7	3.9	103
79	Central nervous system regulation of food intake. *Obesity*, **2006**, 14 Suppl 1, 1S-8S	8	102
78	Exercise, energy intake, glucose homeostasis, and the brain. *Journal of Neuroscience*, **2014**, 34, 15139-49	6.6	99
77	Physiology. An integrative view of obesity. *Science*, **2007**, 318, 928-9	33.3	99
76	Brain pathways controlling food intake and body weight. *Experimental Biology and Medicine*, **2001**, 226, 978-81	3.7	99
75	Functional identification of a neurocircuit regulating blood glucose. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, E2073-82	11.5	97
74	Hypothalamic, metabolic, and behavioral responses to pharmacological inhibition of CNS melanocortin signaling in rats. *Journal of Neuroscience*, **2001**, 21, 3639-45	6.6	94
73	Treatment with a somatostatin analog decreases pancreatic B-cell and whole body sensitivity to glucose. *Journal of Clinical Endocrinology and Metabolism*, **1990**, 71, 994-1002	5.6	89
72	Central injection of fibroblast growth factor 1 induces sustained remission of diabetic hyperglycemia in rodents. *Nature Medicine*, **2016**, 22, 800-6	50.5	89
71	Adiposity signaling and biological defense against weight gain: absence of protection or central hormone resistance?. *Journal of Clinical Endocrinology and Metabolism*, **2004**, 89, 5889-97	5.6	75

70	CNS melanocortin system involvement in the regulation of food intake. *Hormones and Behavior*, **2000**, 37, 299-305	3.7	73
69	Effect of fasting and leptin deficiency on hypothalamic neuropeptide Y gene transcription in vivo revealed by expression of a lacZ reporter gene. *Endocrinology*, **1998**, 139, 2629-35	4.8	72
68	Radiologic evidence that hypothalamic gliosis is associated with obesity and insulin resistance in humans. *Obesity*, **2015**, 23, 2142-8	8	71
67	Distribution of insulin receptor substrate-2 in brain areas involved in energy homeostasis. *Brain Research*, **2006**, 1112, 169-78	3.7	71
66	Neuropeptide Y is required for hyperphagic feeding in response to neuroglucopenia. *Endocrinology*, **2004**, 145, 3363-8	4.8	70
65	Attenuation of diabetic hyperphagia in neuropeptide Y--deficient mice. *Diabetes*, **2002**, 51, 778-83	0.9	68
64	Receptors for tumor necrosis factor-alpha play a protective role against obesity and alter adipose tissue macrophage status. *Endocrinology*, **2009**, 150, 4124-34	4.8	65
63	Effect of fasting on regional levels of neuropeptide Y mRNA and insulin receptors in the rat hypothalamus: An autoradiographic study. *Molecular and Cellular Neurosciences*, **1992**, 3, 199-205	4.8	65
62	Chronic CNS oxytocin signaling preferentially induces fat loss in high-fat diet-fed rats by enhancing satiety responses and increasing lipid utilization. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2016**, 310, R640-58	3.2	62
61	M2 Macrophage Polarization Mediates Anti-inflammatory Effects of Endothelial Nitric Oxide Signaling. *Diabetes*, **2015**, 64, 2836-46	0.9	61
60	Cancer-induced anorexia and malaise are mediated by CGRP neurons in the parabrachial nucleus. *Nature Neuroscience*, **2017**, 20, 934-942	25.5	59
59	BDNF action in the brain attenuates diabetic hyperglycemia via insulin-independent inhibition of hepatic glucose production. *Diabetes*, **2013**, 62, 1512-8	0.9	58
58	Reversal of Cancer Anorexia by Blockade of Central Melanocortin Receptors in Rats		55
57	Forebrain melanocortin signaling enhances the hindbrain satiety response to CCK-8. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2009**, 296, R476-84	3.2	54
56	Evidence that elevated plasma corticosterone levels are the cause of reduced hypothalamic corticotrophin-releasing hormone gene expression in diabetes. *Regulatory Peptides*, **1997**, 72, 105-12		52
55	Does hypothalamic inflammation cause obesity?. *Cell Metabolism*, **2009**, 10, 241-2	24.6	51
54	Central administration of interleukin-4 exacerbates hypothalamic inflammation and weight gain during high-fat feeding. *American Journal of Physiology - Endocrinology and Metabolism*, **2010**, 299, E47-53	6	50
53	Immunocytochemical detection of insulin receptor substrate-1 (IRS-1) in rat brain: colocalization with phosphotyrosine. *Regulatory Peptides*, **1993**, 48, 257-66		44

52	Attenuated feeding responses to circadian and palatability cues in mice lacking neuropeptide Y. *Peptides*, **2005**, 26, 2597-602	3.8	43
51	Leptin signaling is required for adaptive changes in food intake, but not energy expenditure, in response to different thermal conditions. *PLoS ONE*, **2015**, 10, e0119391	3.7	41
50	Peptide signals regulating food intake and energy homeostasis. *Canadian Journal of Physiology and Pharmacology*, **2002**, 80, 396-406	2.4	38
49	Melanocortin signaling and anorexia in chronic disease states. *Annals of the New York Academy of Sciences*, **2003**, 994, 275-81	6.5	36
48	SOCS-3 expression in leptin-sensitive neurons of the hypothalamus of fed and fasted rats. *Regulatory Peptides*, **2000**, 92, 9-15		36
47	Increased hypothalamic melanin concentrating hormone gene expression during energy restriction involves a melanocortin-independent, estrogen-sensitive mechanism. *Peptides*, **2004**, 25, 667-74	3.8	35
46	Chronic hindbrain administration of oxytocin is sufficient to elicit weight loss in diet-induced obese rats. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **2017**, 313, R357-R371	2.3	34
45	Evidence against hypothalamic-pituitary-adrenal axis suppression in the antidiabetic action of leptin. *Journal of Clinical Investigation*, **2015**, 125, 4587-91	15.9	33
44	Signal transducer and activator of transcription (stat) binding sites but not stat3 are required for fasting-induced transcription of agouti-related protein messenger ribonucleic acid. *Molecular Endocrinology*, **2006**, 20, 2591-602		31
43	Evidence That the Sympathetic Nervous System Elicits Rapid, Coordinated, and Reciprocal Adjustments of Insulin Secretion and Insulin Sensitivity During Cold Exposure. *Diabetes*, **2017**, 66, 823-834	0.9	28
42	How Should We Think About the Role of the Brain in Glucose Homeostasis and Diabetes?. *Diabetes*, **2017**, 66, 1758-1765	0.9	27
41	Revisiting How the Brain Senses Glucose-And Why. *Cell Metabolism*, **2019**, 29, 11-17	24.6	27
40	Leptin Deficiency Induced by Fasting Impairs the Satiety Response to Cholecystokinin*This work was supported by grants from the NIH (DK-12829, DK-52989, and NS-32272) and by the Royalty Research Fund, the Diabetes Endocrinology Research Center, and the Clinical Nutrition Research Unit of the University of Washington.		26
39	Peripheral Mechanisms Mediating the Sustained Antidiabetic Action of FGF1 in the Brain. *Diabetes*, **2019**, 68, 654-664	0.9	26
38	Distinct Neuronal Projections From the Hypothalamic Ventromedial Nucleus Mediate Glycemic and Behavioral Effects. *Diabetes*, **2018**, 67, 2518-2529	0.9	24
37	Glucose intolerance induced by blockade of central FGF receptors is linked to an acute stress response. *Molecular Metabolism*, **2015**, 4, 561-8	8.8	22
36	Leptin and the brain: then and now. *Journal of Clinical Investigation*, **2013**, 123, 2344-5	15.9	20
35	Perineuronal Net Formation during the Critical Period for Neuronal Maturation in the Hypothalamic Arcuate Nucleus. *Nature Metabolism*, **2019**, 1, 212-221	14.6	19

34	The hypothalamus and β cell connection in the gene-targeting era. *Diabetes*, **2010**, 59, 2991-3	0.9	19
33	The Hypothalamic Arcuate Nucleus-Median Eminence Is a Target for Sustained Diabetes Remission Induced by Fibroblast Growth Factor 1. *Diabetes*, **2019**, 68, 1054-1061	0.9	18
32	The central fibroblast growth factor receptor/beta klotho system: Comprehensive mapping in Mus musculus and comparisons to nonhuman primate and human samples using an automated in situ hybridization platform. *Journal of Comparative Neurology*, **2019**, 527, 2069-2085	3.4	17
31	Out of synch: Clock mutation causes obesity in mice. *Cell Metabolism*, **2005**, 1, 355-6	24.6	16
30	Transcriptomic analysis links diverse hypothalamic cell types to fibroblast growth factor 1-induced sustained diabetes remission. *Nature Communications*, **2020**, 11, 4458	17.4	16
29	Rethinking the role of the brain in glucose homeostasis and diabetes pathogenesis. *Journal of Clinical Investigation*, **2019**, 129, 3035-3037	15.9	15
28	Rapid glutamate release in the mediobasal hypothalamus accompanies feeding and is exaggerated by an obesogenic food. *Molecular Metabolism*, **2013**, 2, 116-22	8.8	14
27	Regulation of body adiposity and the problem of obesity. *Arteriosclerosis, Thrombosis, and Vascular Biology*, **1997**, 17, 233-8	9.4	14
26	Vasodilator-stimulated phosphoprotein protects against vascular inflammation and insulin resistance. *American Journal of Physiology - Endocrinology and Metabolism*, **2014**, 307, E571-9	6	13
25	Metabolic, gastrointestinal, and CNS neuropeptide effects of brain leptin administration in the rat. *American Journal of Physiology - Regulatory Integrative and Comparative Physiology*, **1999**, 276, R1425-33	3.2	12
24	Deletion of Protein Kinase C δ in POMC Neurons Predisposes to Diet-Induced Obesity. *Diabetes*, **2017**, 66, 920-934	0.9	11
23	Central interleukin-1 (IL1) signaling is required for pharmacological, but not physiological, effects of leptin on energy balance. *Brain Research*, **2007**, 1144, 101-6	3.7	11
22	Hypothalamic perineuronal net assembly is required for sustained diabetes remission induced by fibroblast growth factor 1 in rats. *Nature Metabolism*, **2020**, 2, 1025-1033	14.6	11
21	Genetic determinants of atherosclerosis, obesity, and energy balance in consomic mice. *Mammalian Genome*, **2014**, 25, 549-63	3.2	10
20	Cold-induced hyperphagia requires AgRP neuron activation in mice. *ELife*, **2020**, 9,	8.9	10
19	Quantitative analysis of chondroitin sulfate disaccharides from human and rodent fixed brain tissue by electrospray ionization-tandem mass spectrometry. *Glycobiology*, **2019**, 29, 847-860	5.8	9
18	An inconvenient truth about obesity. *Molecular Metabolism*, **2012**, 1, 2-4	8.8	9
17	Nutritional regulation of oligodendrocyte differentiation regulates perineuronal net remodeling in the median eminence. *Cell Reports*, **2021**, 36, 109362	10.6	9

16	Regulation of appetite and body weight. *Hospital Practice (1995)*, **1997**, 32, 109-12, 117-9	2.2	7
15	Wasting illness as a disorder of body weight regulation. *Proceedings of the Nutrition Society*, **1997**, 56, 785-91	2.9	7
14	Central nervous system regulation of organismal energy and glucose homeostasis. *Nature Metabolism*, **2021**, 3, 737-750	14.6	7
13	Brain control of blood glucose levels: implications for the pathogenesis of type 2 diabetes. *Diabetologia*, **2021**, 64, 5-14	10.3	7
12	In vivo structure-function studies of human hepatic lipase: the catalytic function rescues the lean phenotype of HL-deficient (hl-/-) mice. *Physiological Reports*, **2015**, 3, e12365	2.6	5
11	A method for high-throughput functional imaging of single cells within heterogeneous cell preparations. *Scientific Reports*, **2016**, 6, 39319	4.9	4
10	Central Nervous System Control of Glucose Homeostasis: A Therapeutic Target for Type 2 Diabetes?. *Annual Review of Pharmacology and Toxicology*, **2022**, 62, 55-84	17.9	3
9	Glucoregulatory responses to hypothalamic preoptic area cooling. *Brain Research*, **2019**, 1710, 136-145	3.7	3
8	Leptin receptor neurons in the dorsomedial hypothalamus regulate diurnal patterns of feeding, locomotion, and metabolism. *ELife*, **2021**, 10,	8.9	3
7	Daniel Porte Jr.: A Leader in Our Understanding of the Role of Defective Insulin Secretion and Action in Obesity and Type 2 Diabetes. *Diabetes Care*, **2020**, 43, 704-709	14.6	2
6	A role for natriuretic peptides in the central control of energy balance?. *Diabetes*, **2013**, 62, 1379-81	0.9	2
5	Role of hypothalamic MAPK/ERK signaling and central action of FGF1 in diabetes remission. *IScience*, **2021**, 24, 102944	6.1	2
4	Decoding perineuronal net glycan sulfation patterns in the Alzheimer's disease brain. *Alzheimeris and Dementia*, **2021**,	1.2	2
3	The role of vasodilator-stimulated phosphoprotein (VASP) in the control of hepatic gluconeogenic gene expression. *PLoS ONE*, **2019**, 14, e0215601	3.7	1
2	Response to Comment on: Kaiyala et al. (2010) Identification of Body Fat Mass as a Major Determinant of Metabolic Rate in Mice. Diabetes;59:1657–1666. *Diabetes*, **2011**, 60, e4-e4	0.9	
1	Combined micro-osmotic pump infusion and intracerebroventricular injection to study FGF1 signaling pathways in the mouse brain.. *STAR Protocols*, **2022**, 3, 101329	1.4	