Rudolf Zechner

List of Publications by Year
in descending order

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117	18,183	19657 61	19749 117
papers	citations	h-index	g-index

117	117	117	17080
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pharmacological inhibition of adipose tissue adipose triglyceride lipase by Atglistatin prevents catecholamine-induced myocardial damage. Cardiovascular Research, 2022, 118, 2488-2505.	3.8	20
2	An immune-sympathetic neuron communication axis guides adipose tissue browning in cancer-associated cachexia. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	7.1	28
3	Adipose triglyceride lipase mediated lipid catabolism is essential for bronchiolar regeneration. JCI Insight, 2022, , .	5.0	5
4	Small-Molecule Inhibitors Targeting Lipolysis in Human Adipocytes. Journal of the American Chemical Society, 2022, 144, 6237-6250.	13.7	16
5	ATGL is a biosynthetic enzyme for fatty acid esters of hydroxy fatty acids. Nature, 2022, 606, 968-975.	27.8	57
6	Lipolysis drives expression of the constitutively active receptor GPR3 to induce adipose thermogenesis. Cell, 2021, 184, 3502-3518.e33.	28.9	68
7	Optimized expression and purification of adipose triglyceride lipase improved hydrolytic and transacylation activities inÂvitro. Journal of Biological Chemistry, 2021, 297, 101206.	3.4	13
8	Distinct roles of adipose triglyceride lipase and hormone-sensitive lipase in the catabolism of triacylglycerol estolides. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	39
9	Lipolysis: cellular mechanisms for lipid mobilization from fat stores. Nature Metabolism, 2021, 3, 1445-1465.	11.9	208
10	Lipokine 5-PAHSA Is Regulated by Adipose Triglyceride Lipase and Primes Adipocytes for De Novo Lipogenesis in Mice. Diabetes, 2020, 69, 300-312.	0.6	43
11	Adipose triglyceride lipase activity regulates cancer cell proliferation via AMP-kinase and mTOR signaling. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2020, 1865, 158737.	2.4	26
12	Enhanced monoacylglycerol lipolysis by ABHD6 promotes NSCLC pathogenesis. EBioMedicine, 2020, 53, 102696.	6.1	25
13	The Role of Adipose Triglyceride Lipase and Cytosolic Lipolysis in Cardiac Function and Heart Failure. Cell Reports Medicine, 2020, 1, 100001.	6.5	27
14	CD8+ T cells induce cachexia during chronic viral infection. Nature Immunology, 2019, 20, 701-710.	14.5	62
15	Metabolic disease and ABHD6 alter the circulating bis(monoacylglycerol)phosphate profile in mice and humans. Journal of Lipid Research, 2019, 60, 1020-1031.	4.2	25
16	Identification of an intrinsic lysophosphatidic acid acyltransferase activity in the lipolytic inhibitor G 0 /G 1 switch gene 2 (G0S2). FASEB Journal, 2019, 33, 6655-6666.	0.5	15
17	Hypoxia-inducible lipid droplet-associated protein inhibits adipose triglyceride lipase. Journal of Lipid Research, 2018, 59, 531-541.	4.2	60
18	Brown adipose tissue whitening leads to brown adipocyte death and adipose tissue inflammation. Journal of Lipid Research, 2018, 59, 784-794.	4.2	184

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19	Atglistatin ameliorates functional decline in heart failure via adipocyte-specific inhibition of adipose triglyceride lipase. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H879-H884.	3.2	20
20	Lipolysis Triggers a Systemic Insulin Response Essential for Efficient Energy Replenishment of Activated Brown Adipose Tissue in Mice. Cell Metabolism, 2018, 28, 644-655.e4.	16.2	129
21	Pharmacological inhibition of adipose triglyceride lipase corrects high-fat diet-induced insulin resistance and hepatosteatosis in mice. Nature Communications, 2017, 8, 14859.	12.8	143
22	Cold-Induced Thermogenesis Depends on ATGL-Mediated Lipolysis in Cardiac Muscle, but Not Brown Adipose Tissue. Cell Metabolism, 2017, 26, 753-763.e7.	16.2	242
23	Cytosolic lipolysis and lipophagy: two sides of the same coin. Nature Reviews Molecular Cell Biology, 2017, 18, 671-684.	37.0	348
24	The phospholipase PNPLA7 functions as a lysophosphatidylcholine hydrolase and interacts with lipid droplets through its catalytic domain. Journal of Biological Chemistry, 2017, 292, 19087-19098.	3.4	22
25	Mice lacking lipid droplet-associated hydrolase, a gene linked to human prostate cancer, have normal cholesterol ester metabolism. Journal of Lipid Research, 2017, 58, 226-235.	4.2	16
26	Liver X receptor Î± mediates hepatic triglyceride accumulation through upregulation of G0/G1 Switch Gene 2 expression. JCI Insight, 2017, 2, e88735.	5.0	28
27	Regulation of Hepatic Triacylglycerol Metabolism by CGI-58 Does Not Require ATGL Co-activation. Cell Reports, 2016, 16, 939-949.	6.4	36
28	Monoacylglycerol Lipases Act as Evolutionarily Conserved Regulators of Non-oxidative Ethanol Metabolism. Journal of Biological Chemistry, 2016, 291, 11865-11875.	3.4	14
29	Lysosomal Acid Lipase Hydrolyzes Retinyl Ester and Affects Retinoid Turnover. Journal of Biological Chemistry, 2016, 291, 17977-17987.	3.4	40
30	Loss of adipose triglyceride lipase is associated with human cancer and induces mouse pulmonary neoplasia. Oncotarget, 2016, 7, 33832-33840.	1.8	63
31	Fatty Acid-binding Proteins Interact with Comparative Gene Identification-58 Linking Lipolysis with Lipid Ligand Shuttling. Journal of Biological Chemistry, 2015, 290, 18438-18453.	3.4	49
32	Hypophagia and metabolic adaptations in mice with defective ATGL-mediated lipolysis cause resistance to HFD-induced obesity. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13850-13855.	7.1	58
33	The Interplay of Protein Kinase A and Perilipin 5 Regulates Cardiac Lipolysis*. Journal of Biological Chemistry, 2015, 290, 1295-1306.	3.4	75
34	Adipose triglyceride lipase is involved in the mobilization of triglyceride and retinoid stores of hepatic stellate cells. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2015, 1851, 937-945.	2.4	40
35	Breaking the Barrierâ€"Chaperone-Mediated Autophagy of Perilipins Regulates the Lipolytic Degradation of Fat. Cell Metabolism, 2015, 22, 60-61.	16.2	18
36	Fasting-induced G0/G1 switch gene 2 and FGF21 expression in the liver are under regulation of adipose tissue derived fatty acids. Journal of Hepatology, 2015, 63, 437-445.	3.7	40

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37	Micro RNA-124a Regulates Lipolysis via Adipose Triglyceride Lipase and Comparative Gene Identification 58. International Journal of Molecular Sciences, 2015, 16, 8555-8568.	4.1	25
38	Structure of a CGI-58 Motif Provides the Molecular Basis of Lipid Droplet Anchoring. Journal of Biological Chemistry, 2015, 290, 26361-26372.	3.4	43
39	G0/G1 Switch Gene 2 Regulates Cardiac Lipolysis. Journal of Biological Chemistry, 2015, 290, 26141-26150.	3.4	28
40	Fibroblast growth factor 21 is induced upon cardiac stress and alters cardiac lipid homeostasis. Journal of Lipid Research, 2014, 55, 2229-2241.	4.2	57
41	A Peptide Derived from G0/G1 Switch Gene 2 Acts as Noncompetitive Inhibitor of Adipose Triglyceride Lipase. Journal of Biological Chemistry, 2014, 289, 32559-32570.	3.4	39
42	Role of the ubiquitinâ€“proteasome system in cardiac dysfunction of adipose triglyceride lipase-deficient mice. Journal of Molecular and Cellular Cardiology, 2014, 77, 11-19.	1.9	8
43	Lipolysis meets inflammation: arachidonic acid mobilization from fat. Journal of Lipid Research, 2014, 55, 2447-2449.	4.2	19
44	Hypoxia-inducible Lipid Droplet-associated (HILPDA) Is a Novel Peroxisome Proliferator-activated Receptor (PPAR) Target Involved in Hepatic Triglyceride Secretion. Journal of Biological Chemistry, 2014, 289, 19279-19293.	3.4	61
45	Role of adipose triglyceride lipase (PNPLA2) in protection from hepatic inflammation in mouse models of steatohepatitis and endotoxemia. Hepatology, 2014, 59, 858-869.	7.3	80
46	Comparative gene identification-58/Î±/Î² hydrolase domain 5. Current Opinion in Lipidology, 2014, 25, 102-109.	2.7	12
47	The Hepatitis C Virus Core Protein Inhibits Adipose Triglyceride Lipase (ATGL)-mediated Lipid Mobilization and Enhances the ATGL Interaction with Comparative Gene Identification 58 (CGI-58) and Lipid Droplets. Journal of Biological Chemistry, 2014, 289, 35770-35780.	3.4	29
48	Adipose triglyceride lipase activity is inhibited by long-chain acyl-coenzyme A. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 588-594.	2.4	50
49	Fat-specific Protein 27 (FSP27) Interacts with Adipose Triglyceride Lipase (ATGL) to Regulate Lipolysis and Insulin Sensitivity in Human Adipocytes. Journal of Biological Chemistry, 2014, 289, 12029-12039.	3.4	100
50	Measurement of Lipolysis. Methods in Enzymology, 2014, 538, 171-193.	1.0	140
51	A Switch from White to Brown Fat Increases Energy Expenditure in Cancer-Associated Cachexia. Cell Metabolism, 2014, 20, 433-447.	16.2	535
52	Hormone-Sensitive Lipase Deficiency in Humans. Cell Metabolism, 2014, 20, 199-201.	16.2	13
53	Endothelial dysfunction in adipose triglyceride lipase deficiency. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2014, 1841, 906-917.	2.4	25
54	Depletion of White Adipose Tissue in Cancer Cachexia Syndrome Is Associated with Inflammatory Signaling and Disrupted Circadian Regulation. PLoS ONE, 2014, 9, e92966.	2.5	69

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55	Skeletal Muscle Triacylglycerol Hydrolysis Does Not Influence Metabolic Complications of Obesity. Diabetes, 2013, 62, 3350-3361.	0.6	60
56	Cardiac oxidative stress in a mouse model of neutral lipid storage disease. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2013, 1831, 1600-1608.	2.4	25
57	Development of small-molecule inhibitors targeting adipose triglyceride lipase. Nature Chemical Biology, 2013, 9, 785-787.	8.0	163
58	Early structural and metabolic cardiac remodelling in response to inducible adipose triglyceride lipase ablation. Cardiovascular Research, 2013, 99, 442-451.	3.8	52
59	Myocardial Adipose Triglyceride Lipase Overexpression Protects Diabetic Mice From the Development of Lipotoxic Cardiomyopathy. Diabetes, 2013, 62, 1464-1477.	0.6	78
60	Functional Cardiac Lipolysis in Mice Critically Depends on Comparative Gene Identification-58. Journal of Biological Chemistry, 2013, 288, 9892-9904.	3.4	60
61	Cardiac-specific overexpression of perilipin 5 provokes severe cardiac steatosis via the formation of a lipolytic barrier. Journal of Lipid Research, 2013, 54, 1092-1102.	4.2	97
62	Biochemistry and pathophysiology of intravascular and intracellular lipolysis. Genes and Development, 2013, 27, 459-484.	5.9	277
63	Adipose Triglyceride Lipase (ATGL) and Hormone-Sensitive Lipase (HSL) Deficiencies Affect Expression of Lipolytic Activities in Mouse Adipose Tissues. Molecular and Cellular Proteomics, 2012, 11, 1777-1789.	3.8	82
64	Myocardial ATGL Overexpression Decreases the Reliance on Fatty Acid Oxidation and Protects against Pressure Overload-Induced Cardiac Dysfunction. Molecular and Cellular Biology, 2012, 32, 740-750.	2.3	95
65	G0/G1 switch gene-2 regulates human adipocyte lipolysis by affecting activity and localization of adipose triglyceride lipase. Journal of Lipid Research, 2012, 53, 2307-2317.	4.2	88
66	Studies on the Substrate and Stereo/Regioselectivity of Adipose Triglyceride Lipase, Hormone-sensitive Lipase, and Diacylglycerol-O-acyltransferases. Journal of Biological Chemistry, 2012, 287, 41446-41457.	3.4	171
67	FAT SIGNALS - Lipases and Lipolysis in Lipid Metabolism and Signaling. Cell Metabolism, 2012, 15, 279-291.	16.2	852
68	Adiponutrin Functions as a Nutritionally Regulated Lysophosphatidic Acid Acyltransferase. Cell Metabolism, 2012, 15, 691-702.	16.2	258
69	Alterations in Lipid Metabolism Mediate Inflammation, Fibrosis, and Proliferation in a Mouse Model of Chronic Cholestatic Liver Injury. Gastroenterology, 2012, 142, 140-151.e12.	1.3	139
70	PNPLA1 mutations cause autosomal recessive congenital ichthyosis in golden retriever dogs and humans. Nature Genetics, 2012, 44, 140-147.	21.4	208
71	ATGL-mediated fat catabolism regulates cardiac mitochondrial function via PPAR-Î± and PGC-1. Nature Medicine, 2011, 17, 1076-1085.	30.7	612
72	Brain Insulin Controls Adipose Tissue Lipolysis and Lipogenesis. Cell Metabolism, 2011, 13, 183-194.	16.2	216

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73	Lipolysis â€“ A highly regulated multi-enzyme complex mediates the catabolism of cellular fat stores. Progress in Lipid Research, 2011, 50, 14-27.	11.6	519
74	Adipose Triglyceride Lipase Contributes to Cancer-Associated Cachexia. Science, 2011, 333, 233-238.	12.6	475
75	The Minimal Domain of Adipose Triglyceride Lipase (ATGL) Ranges until Leucine 254 and Can Be Activated and Inhibited by CGI-58 and G0S2, Respectively. PLoS ONE, 2011, 6, e26349.	2.5	76
76	Recent insights into the structure and function of comparative gene identification-58. Current Opinion in Lipidology, 2011, 22, 149-158.	2.7	36
77	Adipose triglyceride lipase affects triacylglycerol metabolism at brain barriers. Journal of Neurochemistry, 2011, 119, 1016-1028.	3.9	54
78	Fat in the skin. Dermato-Endocrinology, 2011, 3, 77-83.	1.8	23
79	Pnpla3/Adiponutrin deficiency in mice does not contribute to fatty liver disease or metabolic syndrome. Journal of Lipid Research, 2011, 52, 318-329.	4.2	190
80	Monoglyceride Lipase Deficiency in Mice Impairs Lipolysis and Attenuates Diet-induced Insulin Resistance. Journal of Biological Chemistry, 2011, 286, 17467-17477.	3.4	224
81	Pigment Epitheliumâ€“Derived Factor Regulates Lipid Metabolism via Adipose Triglyceride Lipase. Diabetes, 2011, 60, 1458-1466.	0.6	106
82	Macrophage Adipose Triglyceride Lipase Deficiency Attenuates Atherosclerotic Lesion Development in Low-Density Lipoprotein Receptor Knockout Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2011, 31, 67-73.	2.4	44
83	Cholesteryl ester hydrolase activity is abolished in HSL macrophages but unchanged in macrophages lacking KIAA1363. Journal of Lipid Research, 2010, 51, 2896-2908.	4.2	45
84	Efficient Phagocytosis Requires Triacylglycerol Hydrolysis by Adipose Triglyceride Lipase. Journal of Biological Chemistry, 2010, 285, 20192-20201.	3.4	126
85	Weight loss and lipolysis promote a dynamic immune response in murine adipose tissue. Journal of Clinical Investigation, 2010, 120, 3466-3479.	8.2	580
86	Recommended nomenclature for five mammalian carboxylesterase gene families: human, mouse, and rat genes and proteins. Mammalian Genome, 2010, 21, 427-441.	2.2	147
87	The N-terminal Region of Comparative Gene Identification-58 (CGI-58) Is Important for Lipid Droplet Binding and Activation of Adipose Triglyceride Lipase. Journal of Biological Chemistry, 2010, 285, 12289-12298.	3.4	94
88	Adipose triglyceride lipase plays a key role in the supply of the working muscle with fatty acids. Journal of Lipid Research, 2010, 51, 490-499.	4.2	89
89	Growth Retardation, Impaired Triacylglycerol Catabolism, Hepatic Steatosis, and Lethal Skin Barrier Defect in Mice Lacking Comparative Gene Identification-58 (CGI-58). Journal of Biological Chemistry, 2010, 285, 7300-7311.	3.4	168
90	Investigation and Functional Characterization of Rare Genetic Variants in the Adipose Triglyceride Lipase in a Large Healthy Working Population. PLoS Genetics, 2010, 6, e1001239.	3.5	46

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91	Mammalian patatin domain containing proteins: a family with diverse lipolytic activities involved in multiple biological functions. Journal of Lipid Research, 2009, 50, S63-S68.	4.2	275
92	Adipose Triglyceride Lipase Deficiency Causes Tissue-specific Changes in Insulin Signaling. Journal of Biological Chemistry, 2009, 284, 30218-30229.	3.4	101
93	Adipose Triglyceride Lipase Is Implicated in Fuel- and Non-fuel-stimulated Insulin Secretion. Journal of Biological Chemistry, 2009, 284, 16848-16859.	3.4	73
94	Adipose triglyceride lipase and the lipolytic catabolism of cellular fat stores. Journal of Lipid Research, 2009, 50, 3-21.	4.2	449
95	Adipose triacylglycerol lipase deletion alters whole body energy metabolism and impairs exercise performance in mice. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E505-E513.	3.5	111
96	Neutral lipid storage disease: genetic disorders caused by mutations in adipose triglyceride lipase/PNPLA2orCGI-58/ABHD5. American Journal of Physiology - Endocrinology and Metabolism, 2009, 297, E289-E296.	3.5	244
97	Another way to get rid of fat. Nature, 2009, 458, 1118-1119.	27.8	44
98	Differential transcriptional modulation of biological processes in adipocyte triglyceride lipase and hormone-sensitive lipase-deficient mice. Genomics, 2008, 92, 26-32.	2.9	36
99	Hepatic Overexpression of Hormone-sensitive Lipase and Adipose Triglyceride Lipase Promotes Fatty Acid Oxidation, Stimulates Direct Release of Free Fatty Acids, and Ameliorates Steatosis. Journal of Biological Chemistry, 2008, 283, 13087-13099.	3.4	252
100	The C-terminal Region of Human Adipose Triglyceride Lipase Affects Enzyme Activity and Lipid Droplet Binding. Journal of Biological Chemistry, 2008, 283, 17211-17220.	3.4	133
101	Defective Lipolysis and Altered Energy Metabolism in Mice Lacking Adipose Triglyceride Lipase. Science, 2006, 312, 734-737.	12.6	1,135
102	Adipose triglyceride lipase-mediated lipolysis of cellular fat stores is activated by CGI-58 and defective in Chanarin-Dorfman Syndrome. Cell Metabolism, 2006, 3, 309-319.	16.2	766
103	Obese Yeast: Triglyceride Lipolysis Is Functionally Conserved from Mammals to Yeast. Journal of Biological Chemistry, 2006, 281, 491-500.	3.4	273
104	The ATGL Gene Is Associated With Free Fatty Acids, Triglycerides, and Type 2 Diabetes. Diabetes, 2006, 55, 1270-1275.	0.6	100
105	Adipose Triglyceride Lipase and Hormone-sensitive Lipase Are the Major Enzymes in Adipose Tissue Triacylglycerol Catabolism. Journal of Biological Chemistry, 2006, 281, 40236-40241.	3.4	562
106	Lipolysis: pathway under construction. Current Opinion in Lipidology, 2005, 16, 333-340.	2.7	234
107	The Lipolytic Proteome of Mouse Adipose Tissue. Molecular and Cellular Proteomics, 2005, 4, 1710-1717.	3.8	53
108	Cardiac-specific Knock-out of Lipoprotein Lipase Alters Plasma Lipoprotein Triglyceride Metabolism and Cardiac Gene Expression. Journal of Biological Chemistry, 2004, 279, 25050-25057.	3.4	107

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109	Fat Mobilization in Adipose Tissue Is Promoted by Adipose Triglyceride Lipase. Science, 2004, 306, 1383-1386.	12.6	1,744
110	Decreased fatty acid esterification compensates for the reduced lipolytic activity in hormone-sensitive lipase-deficient white adipose tissue. Journal of Lipid Research, 2003, 44, 2089-2099.	4.2	99
111	Increased Hepatic Insulin Sensitivity Together with Decreased Hepatic Triglyceride Stores in Hormone-Sensitive Lipase-Deficient Mice. Endocrinology, 2003, 144, 3456-3462.	2.8	104
112	Letting lipids go: hormone-sensitive lipase. Current Opinion in Lipidology, 2003, 14, 289-297.	2.7	74
113	Hormone-sensitive Lipase Deficiency in Mice Causes Diglyceride Accumulation in Adipose Tissue, Muscle, and Testis. Journal of Biological Chemistry, 2002, 277, 4806-4815.	3.4	512
114	Hormone-sensitive Lipase Deficiency in Mice Changes the Plasma Lipid Profile by Affecting the Tissue-specific Expression Pattern of Lipoprotein Lipase in Adipose Tissue and Muscle. Journal of Biological Chemistry, 2002, 277, 12946-12952.	3.4	132
115	Lipoprotein lipase: the regulation of tissue specific expression and its role in lipid and energy metabolism. Current Opinion in Lipidology, 2002, 13, 471-481.	2.7	196
116	Myocardial Contractile Function and Heart Rate in Mice With Myocyte-Specific Overexpression of Endothelial Nitric Oxide Synthase. Circulation, 2001, 104, 3097-3102.	1.6	112
117	Rapid and simple isolation procedure for lipoprotein lipase from human milk. Lipids and Lipid Metabolism, 1990, 1044, 20-25.	2.6	52