

# C Ronald Kahn

## List of Publications by Year in descending order

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569  
papers

109,496  
citations

128

161  
h-index

195

315  
g-index

587  
all docs

587  
docs citations

587  
times ranked

75262  
citing authors

| #  | ARTICLE                                                                                                                                                                                                                                                | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 1  | Insulin signalling and the regulation of glucose and lipid metabolism. <i>Nature</i> , 2001, 414, 799-806.                                                                                                                                             | 13.7 | 4,324     |
| 2  | Identification and Importance of Brown Adipose Tissue in Adult Humans. <i>New England Journal of Medicine</i> , 2009, 360, 1509-1517.                                                                                                                  | 13.9 | 3,690     |
| 3  | Critical nodes in signalling pathways: insights into insulin action. <i>Nature Reviews Molecular Cell Biology</i> , 2006, 7, 85-96.                                                                                                                    | 16.1 | 2,299     |
| 4  | Role of Brain Insulin Receptor in Control of Body Weight and Reproduction. <i>Science</i> , 2000, 289, 2122-2125.                                                                                                                                      | 6.0  | 1,993     |
| 5  | Coordinated reduction of genes of oxidative metabolism in humans with insulin resistance and diabetes: Potential role of PGC1 and NRF1. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 8466-8471. | 3.3  | 1,800     |
| 6  | Control of hepatic gluconeogenesis through the transcriptional coactivator PGC-1. <i>Nature</i> , 2001, 413, 131-138.                                                                                                                                  | 13.7 | 1,640     |
| 7  | Suppression of Aging in Mice by the Hormone Klotho. <i>Science</i> , 2005, 309, 1829-1833.                                                                                                                                                             | 6.0  | 1,634     |
| 8  | Structure of the insulin receptor substrate IRS-1 defines a unique signal transduction protein. <i>Nature</i> , 1991, 352, 73-77.                                                                                                                      | 13.7 | 1,516     |
| 9  | SIRT3 regulates mitochondrial fatty-acid oxidation by reversible enzyme deacetylation. <i>Nature</i> , 2010, 464, 121-125.                                                                                                                             | 13.7 | 1,388     |
| 10 | Antioxidants prevent health-promoting effects of physical exercise in humans. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 8665-8670.                                                           | 3.3  | 1,315     |
| 11 | Type 2 diabetes mellitus. <i>Nature Reviews Disease Primers</i> , 2015, 1, 15019.                                                                                                                                                                      | 18.1 | 1,308     |
| 12 | Developmental Origin of Fat: Tracking Obesity to Its Source. <i>Cell</i> , 2007, 131, 242-256.                                                                                                                                                         | 13.5 | 1,242     |
| 13 | Extended Longevity in Mice Lacking the Insulin Receptor in Adipose Tissue. <i>Science</i> , 2003, 299, 572-574.                                                                                                                                        | 6.0  | 1,198     |
| 14 | Alternative pathway of insulin signalling in mice with targeted disruption of the IRS-1 gene. <i>Nature</i> , 1994, 372, 186-190.                                                                                                                      | 13.7 | 1,195     |
| 15 | Insulin stimulates the phosphorylation of the 95,000-dalton subunit of its own receptor. <i>Science</i> , 1982, 215, 185-187.                                                                                                                          | 6.0  | 1,136     |
| 16 | Adipose-derived circulating miRNAs regulate gene expression in other tissues. <i>Nature</i> , 2017, 542, 450-455.                                                                                                                                      | 13.7 | 1,107     |
| 17 | Role of glucose and insulin resistance in development of type 2 diabetes mellitus: results of a 25-year follow-up study. <i>Lancet, The</i> , 1992, 340, 925-929.                                                                                      | 6.3  | 1,093     |
| 18 | Tissue-Specific Knockout of the Insulin Receptor in Pancreatic $\beta^2$ Cells Creates an Insulin Secretory Defect Similar to that in Type 2 Diabetes. <i>Cell</i> , 1999, 96, 329-339.                                                                | 13.5 | 1,093     |

| #  | ARTICLE                                                                                                                                                                               | IF   | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 19 | The Syndromes of Insulin Resistance and Acanthosis Nigricans. <i>New England Journal of Medicine</i> , 1976, 294, 739-745.                                                            | 13.9 | 1,088     |
| 20 | A Muscle-Specific Insulin Receptor Knockout Exhibits Features of the Metabolic Syndrome of NIDDM without Altering Glucose Tolerance. <i>Molecular Cell</i> , 1998, 2, 559-569.        | 4.5  | 1,071     |
| 21 | Insulin Receptor Signaling in Normal and Insulin-Resistant States. <i>Cold Spring Harbor Perspectives in Biology</i> , 2014, 6, a009191-a009191.                                      | 2.3  | 1,058     |
| 22 | New role of bone morphogenetic protein 7 in brown adipogenesis and energy expenditure. <i>Nature</i> , 2008, 454, 1000-1004.                                                          | 13.7 | 964       |
| 23 | Insulin resistance differentially affects the PI 3-kinase and MAP kinase-mediated signaling in human muscle. <i>Journal of Clinical Investigation</i> , 2000, 105, 311-320.           | 3.9  | 953       |
| 24 | Slow Glucose Removal Rate and Hyperinsulinemia Precede the Development of Type II Diabetes in the Offspring of Diabetic Parents. <i>Annals of Internal Medicine</i> , 1990, 113, 909. | 2.0  | 890       |
| 25 | Insulin Action, Diabetogenes, and the Cause of Type II Diabetes. <i>Diabetes</i> , 1994, 43, 1066-1085.                                                                               | 0.3  | 865       |
| 26 | Diabetes primes neutrophils to undergo NETosis, which impairs wound healing. <i>Nature Medicine</i> , 2015, 21, 815-819.                                                              | 15.2 | 824       |
| 27 | ErbB2 is essential in the prevention of dilated cardiomyopathy. <i>Nature Medicine</i> , 2002, 8, 459-465.                                                                            | 15.2 | 796       |
| 28 | The changing natural history of nephropathy in type I Diabetes. <i>American Journal of Medicine</i> , 1985, 78, 785-794.                                                              | 0.6  | 795       |
| 29 | Phlorizin: a review. <i>Diabetes/Metabolism Research and Reviews</i> , 2005, 21, 31-38.                                                                                               | 1.7  | 772       |
| 30 | Insulin resistance, insulin insensitivity, and insulin unresponsiveness: A necessary distinction. <i>Metabolism: Clinical and Experimental</i> , 1978, 27, 1893-1902.                 | 1.5  | 746       |
| 31 | Protein-protein interaction in insulin signaling and the molecular mechanisms of insulin resistance. <i>Journal of Clinical Investigation</i> , 1999, 103, 931-943.                   | 3.9  | 721       |
| 32 | Adipose Tissue Selective Insulin Receptor Knockout Protects against Obesity and Obesity-Related Glucose Intolerance. <i>Developmental Cell</i> , 2002, 3, 25-38.                      | 3.1  | 719       |
| 33 | SIRT3 Deficiency and Mitochondrial Protein Hyperacetylation Accelerate the Development of the Metabolic Syndrome. <i>Molecular Cell</i> , 2011, 44, 177-190.                          | 4.5  | 691       |
| 34 | Insulin stimulates tyrosine phosphorylation of the insulin receptor in a cell-free system. <i>Nature</i> , 1982, 298, 667-669.                                                        | 13.7 | 684       |
| 35 | Insulin Action and the Insulin Signaling Network*. <i>Endocrine Reviews</i> , 1995, 16, 117-142.                                                                                      | 8.9  | 664       |
| 36 | Insulin rapidly stimulates tyrosine phosphorylation of a Mr-185,000 protein in intact cells. <i>Nature</i> , 1985, 318, 183-186.                                                      | 13.7 | 661       |

| #  | ARTICLE                                                                                                                                                                                                                                                    | IF   | CITATIONS |
|----|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 37 | A guide to analysis of mouse energy metabolism. <i>Nature Methods</i> , 2012, 9, 57-63.                                                                                                                                                                    | 9.0  | 655       |
| 38 | FROM MICE TO MEN: Insights into the Insulin Resistance Syndromes. <i>Annual Review of Physiology</i> , 2006, 68, 123-158.                                                                                                                                  | 5.6  | 626       |
| 39 | Targeted disruption of the glucose transporter 4 selectively in muscle causes insulin resistance and glucose intolerance. <i>Nature Medicine</i> , 2000, 6, 924-928.                                                                                       | 15.2 | 624       |
| 40 | Magnitude and determinants of coronary artery disease in juvenile-onset, insulin-dependent diabetes mellitus. <i>American Journal of Cardiology</i> , 1987, 59, 750-755.                                                                                   | 0.7  | 620       |
| 41 | Beneficial Effects of Subcutaneous Fat Transplantation on Metabolism. <i>Cell Metabolism</i> , 2008, 7, 410-420.                                                                                                                                           | 7.2  | 602       |
| 42 | Membrane receptors for hormones and neurotransmitters.. <i>Journal of Cell Biology</i> , 1976, 70, 261-286.                                                                                                                                                | 2.3  | 598       |
| 43 | Suppressor of Cytokine Signaling 1 (SOCS-1) and SOCS-3 Cause Insulin Resistance through Inhibition of Tyrosine Phosphorylation of Insulin Receptor Substrate Proteins by Discrete Mechanisms. <i>Molecular and Cellular Biology</i> , 2004, 24, 5434-5446. | 1.1  | 582       |
| 44 | Insulin Action in AgRP-Expressing Neurons Is Required for Suppression of Hepatic Glucose Production. <i>Cell Metabolism</i> , 2007, 5, 438-449.                                                                                                            | 7.2  | 579       |
| 45 | Role for neuronal insulin resistance in neurodegenerative diseases. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 3100-3105.                                                                         | 3.3  | 563       |
| 46 | Regulation of Myocardial Contractility and Cell Size by Distinct PI3K-PTEN Signaling Pathways. <i>Cell</i> , 2002, 110, 737-749.                                                                                                                           | 13.5 | 545       |
| 47 | Evidence for a role of developmental genes in the origin of obesity and body fat distribution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 6676-6681.                                              | 3.3  | 543       |
| 48 | Obesity Associated with a Mutation in a Genetic Regulator of Adipocyte Differentiation. <i>New England Journal of Medicine</i> , 1998, 339, 953-959.                                                                                                       | 13.9 | 531       |
| 49 | Development of a Novel Polygenic Model of NIDDM in Mice Heterozygous for IR and IRS-1 Null Alleles. <i>Cell</i> , 1997, 88, 561-572.                                                                                                                       | 13.5 | 517       |
| 50 | Extracellular miRNAs: From Biomarkers to Mediators of Physiology and Disease. <i>Cell Metabolism</i> , 2019, 30, 656-673.                                                                                                                                  | 7.2  | 511       |
| 51 | Cellular bioenergetics as a target for obesity therapy. <i>Nature Reviews Drug Discovery</i> , 2010, 9, 465-482.                                                                                                                                           | 21.5 | 501       |
| 52 | Insulin Action in Brain Regulates Systemic Metabolism and Brain Function. <i>Diabetes</i> , 2014, 63, 2232-2243.                                                                                                                                           | 0.3  | 472       |
| 53 | Loss of ARNT/HIF1 <sup>1</sup> 2 Mediates Altered Gene Expression and Pancreatic-Islet Dysfunction in Human Type 2 Diabetes. <i>Cell</i> , 2005, 122, 337-349.                                                                                             | 13.5 | 460       |
| 54 | Role of Dietary Fructose and Hepatic De Novo Lipogenesis in Fatty Liver Disease. <i>Digestive Diseases and Sciences</i> , 2016, 61, 1282-1293.                                                                                                             | 1.1  | 456       |

| #  | ARTICLE                                                                                                                                                                                                                                                                   | IF   | CITATIONS |
|----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 55 | Antibodies that impair insulin receptor binding in an unusual diabetic syndrome with severe insulin resistance. <i>Science</i> , 1975, 190, 63-65.                                                                                                                        | 6.0  | 450       |
| 56 | Bidirectional modulation of insulin action by amino acids.. <i>Journal of Clinical Investigation</i> , 1998, 101, 1519-1529.                                                                                                                                              | 3.9  | 442       |
| 57 | Interactions between Gut Microbiota, Host Genetics and Diet Modulate the Predisposition to Obesity and Metabolic Syndrome. <i>Cell Metabolism</i> , 2015, 22, 516-530.                                                                                                    | 7.2  | 433       |
| 58 | SIRT2 Regulates Adipocyte Differentiation through FoxO1 Acetylation/Deacetylation. <i>Cell Metabolism</i> , 2007, 6, 105-114.                                                                                                                                             | 7.2  | 429       |
| 59 | Platform-independent and Label-free Quantitation of Proteomic Data Using MS1 Extracted Ion Chromatograms in Skyline. <i>Molecular and Cellular Proteomics</i> , 2012, 11, 202-214.                                                                                        | 2.5  | 428       |
| 60 | Tissue-specific insulin resistance in mice with mutations in the insulin receptor, IRS-1, and IRS-2. <i>Journal of Clinical Investigation</i> , 2000, 105, 199-205.                                                                                                       | 3.9  | 419       |
| 61 | Tumstatin, an Endothelial Cell-Specific Inhibitor of Protein Synthesis. <i>Science</i> , 2002, 295, 140-143.                                                                                                                                                              | 6.0  | 416       |
| 62 | The Molecular Mechanism of Insulin Action. <i>Annual Review of Medicine</i> , 1985, 36, 429-451.                                                                                                                                                                          | 5.0  | 415       |
| 63 | Label-free quantitative proteomics of the lysine acetylome in mitochondria identifies substrates of SIRT3 in metabolic pathways. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 6601-6606.                           | 3.3  | 414       |
| 64 | Epidemiologic Approach to the Etiology of Type I Diabetes Mellitus and Its Complications. <i>New England Journal of Medicine</i> , 1987, 317, 1390-1398.                                                                                                                  | 13.9 | 407       |
| 65 | Sirtuin-3 (Sirt3) regulates skeletal muscle metabolism and insulin signaling via altered mitochondrial oxidation and reactive oxygen species production. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 14608-14613. | 3.3  | 403       |
| 66 | Fluctuations in the affinity and concentration of insulin receptors on circulating monocytes of obese patients: effects of starvation, refeeding, and dieting.. <i>Journal of Clinical Investigation</i> , 1976, 58, 1123-1135.                                           | 3.9  | 401       |
| 67 | Receptors and growth-promoting effects of insulin and insulinlike growth factors on cells from bovine retinal capillaries and aorta.. <i>Journal of Clinical Investigation</i> , 1985, 75, 1028-1036.                                                                     | 3.9  | 394       |
| 68 | Dilated cardiomyopathy and atrioventricular conduction blocks induced by heart-specific inactivation of mitochondrial DNA gene expression. <i>Nature Genetics</i> , 1999, 21, 133-137.                                                                                    | 9.4  | 393       |
| 69 | Angiotensin II inhibits insulin signaling in aortic smooth muscle cells at multiple levels. A potential role for serine phosphorylation in insulin/angiotensin II crosstalk.. <i>Journal of Clinical Investigation</i> , 1997, 100, 2158-2169.                            | 3.9  | 392       |
| 70 | Altered adipose tissue and adipocyte function in the pathogenesis of metabolic syndrome. <i>Journal of Clinical Investigation</i> , 2019, 129, 3990-4000.                                                                                                                 | 3.9  | 389       |
| 71 | Insulin-Receptor Interaction in the Obese-Hyperglycemic Mouse. <i>Journal of Biological Chemistry</i> , 1973, 248, 244-250.                                                                                                                                               | 1.6  | 388       |
| 72 | Hepatic Insulin Resistance Is Sufficient to Produce Dyslipidemia and Susceptibility to Atherosclerosis. <i>Cell Metabolism</i> , 2008, 7, 125-134.                                                                                                                        | 7.2  | 383       |

| #  | ARTICLE                                                                                                                                                                                                                                                                  | IF   | CITATIONS |
|----|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 73 | Mutation of the insulin receptor at tyrosine 960 inhibits signal transmission but does not affect its tyrosine kinase activity. <i>Cell</i> , 1988, 54, 641-649.                                                                                                         | 13.5 | 382       |
| 74 | Astrocytic Insulin Signaling Couples Brain Glucose Uptake with Nutrient Availability. <i>Cell</i> , 2016, 166, 867-880.                                                                                                                                                  | 13.5 | 382       |
| 75 | Targeted Deletion of AIF Decreases Mitochondrial Oxidative Phosphorylation and Protects from Obesity and Diabetes. <i>Cell</i> , 2007, 131, 476-491.                                                                                                                     | 13.5 | 381       |
| 76 | The insulin receptor and the molecular mechanism of insulin action.. <i>Journal of Clinical Investigation</i> , 1988, 82, 1151-1156.                                                                                                                                     | 3.9  | 380       |
| 77 | Insulin Interactions with Liver Plasma Membranes. <i>Journal of Biological Chemistry</i> , 1972, 247, 3953-3961.                                                                                                                                                         | 1.6  | 379       |
| 78 | Direct demonstration that receptor crosslinking or aggregation is important in insulin action. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1978, 75, 4209-4213.                                                             | 3.3  | 378       |
| 79 | Insulin Signaling to the Glomerular Podocyte Is Critical for Normal Kidney Function. <i>Cell Metabolism</i> , 2010, 12, 329-340.                                                                                                                                         | 7.2  | 376       |
| 80 | Impaired Insulin/IGF1 Signaling Extends Life Span by Promoting Mitochondrial L-Proline Catabolism to Induce a Transient ROS Signal. <i>Cell Metabolism</i> , 2012, 15, 451-465.                                                                                          | 7.2  | 367       |
| 81 | Muscle-specific PPAR $\beta$ -deficient mice develop increased adiposity and insulin resistance but respond to thiazolidinediones. <i>Journal of Clinical Investigation</i> , 2003, 112, 608-618.                                                                        | 3.9  | 366       |
| 82 | Cross-talk between the insulin and angiotensin signaling systems.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1996, 93, 12490-12495.                                                                                       | 3.3  | 363       |
| 83 | Differences in Risk of Insulin-Dependent Diabetes in Offspring of Diabetic Mothers and Diabetic Fathers. <i>New England Journal of Medicine</i> , 1984, 311, 149-152.                                                                                                    | 13.9 | 353       |
| 84 | Central role of suppressors of cytokine signaling proteins in hepatic steatosis, insulin resistance, and the metabolic syndrome in the mouse. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2004, 101, 10422-10427.           | 3.3  | 350       |
| 85 | Quantitative Aspects of the Insulin-Receptor Interaction in Liver Plasma Membranes. <i>Journal of Biological Chemistry</i> , 1974, 249, 2249-2257.                                                                                                                       | 1.6  | 346       |
| 86 | $\beta$ -cell-specific deletion of the Igf1 receptor leads to hyperinsulinemia and glucose intolerance but does not alter $\beta$ -cell mass. <i>Nature Genetics</i> , 2002, 31, 111-115.                                                                                | 9.4  | 345       |
| 87 | Fatty liver is associated with reduced SIRT3 activity and mitochondrial protein hyperacetylation. <i>Biochemical Journal</i> , 2011, 433, 505-514.                                                                                                                       | 1.7  | 339       |
| 88 | Direct Demonstration of Separate Receptors for Growth and Metabolic Activities of Insulin and Multiplication-stimulating Activity (an Insulinlike Growth Factor) Using Antibodies to the Insulin Receptor. <i>Journal of Clinical Investigation</i> , 1980, 66, 130-140. | 3.9  | 337       |
| 89 | Sex and Depot Differences in Adipocyte Insulin Sensitivity and Glucose Metabolism. <i>Diabetes</i> , 2009, 58, 803-812.                                                                                                                                                  | 0.3  | 331       |
| 90 | Tyrosine-specific protein kinase activity is associated with the purified insulin receptor.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1983, 80, 2137-2141.                                                               | 3.3  | 329       |

| #   | ARTICLE                                                                                                                                                                                                     | IF   | CITATIONS |
|-----|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 91  | Insulin resistance in brain alters dopamine turnover and causes behavioral disorders. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 3463-3468.                | 3.3  | 314       |
| 92  | Endocrine regulation of ageing. Nature Reviews Molecular Cell Biology, 2007, 8, 681-691.                                                                                                                    | 16.1 | 310       |
| 93  | Insulin regulates liver metabolism in vivo in the absence of hepatic Akt and Foxo1. Nature Medicine, 2012, 18, 388-395.                                                                                     | 15.2 | 310       |
| 94  | Brown fat as a therapy for obesity and diabetes. Current Opinion in Endocrinology, Diabetes and Obesity, 2010, 17, 143-149.                                                                                 | 1.2  | 309       |
| 95  | MicroRNA sequence codes for small extracellular vesicle release and cellular retention. Nature, 2022, 601, 446-451.                                                                                         | 13.7 | 300       |
| 96  | Insulin signaling coordinately regulates cardiac size, metabolism, and contractile protein isoform expression. Journal of Clinical Investigation, 2002, 109, 629-639.                                       | 3.9  | 297       |
| 97  | Modulation of insulin receptor, insulin receptor substrate-1, and phosphatidylinositol 3-kinase in liver and muscle of dexamethasone-treated rats.. Journal of Clinical Investigation, 1993, 92, 2065-2072. | 3.9  | 293       |
| 98  | The role of endothelial insulin signaling in the regulation of vascular tone and insulin resistance. Journal of Clinical Investigation, 2003, 111, 1373-1380.                                               | 3.9  | 290       |
| 99  | Redistribution of substrates to adipose tissue promotes obesity in mice with selective insulin resistance in muscle. Journal of Clinical Investigation, 2000, 105, 1791-1797.                               | 3.9  | 283       |
| 100 | Tissue-Specific Insulin Signaling, Metabolic Syndrome, and Cardiovascular Disease. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, 2052-2059.                                                 | 1.1  | 281       |
| 101 | Lessons on Conditional Gene Targeting in Mouse Adipose Tissue. Diabetes, 2013, 62, 864-874.                                                                                                                 | 0.3  | 281       |
| 102 | Hypoglycaemia, liver necrosis and perinatal death in mice lacking all isoforms of phosphoinositide 3-kinase p85 $\beta$ . Nature Genetics, 2000, 26, 379-382.                                               | 9.4  | 273       |
| 103 | The Cellular Fate of Glucose and Its Relevance in Type 2 Diabetes. Endocrine Reviews, 2004, 25, 807-830.                                                                                                    | 8.9  | 273       |
| 104 | Mir193b $\beta$ 365 is essential for brown fat differentiation. Nature Cell Biology, 2011, 13, 958-965.                                                                                                     | 4.6  | 273       |
| 105 | The Emerging Genetic Architecture of Type 2 Diabetes. Cell Metabolism, 2008, 8, 186-200.                                                                                                                    | 7.2  | 271       |
| 106 | Transplantation of adipose tissue and stem cells: role in metabolism and disease. Nature Reviews Endocrinology, 2010, 6, 195-213.                                                                           | 4.3  | 268       |
| 107 | Loss of Insulin Signaling in Vascular Endothelial Cells Accelerates Atherosclerosis in Apolipoprotein E Null Mice. Cell Metabolism, 2010, 11, 379-389.                                                      | 7.2  | 267       |
| 108 | Cold but not sympathomimetics activates human brown adipose tissue in vivo. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 10001-10005.                        | 3.3  | 264       |

| #   | ARTICLE                                                                                                                                                                                                                           | IF   | CITATIONS |
|-----|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 109 | Brain glucagon-like peptide-1 increases insulin secretion and muscle insulin resistance to favor hepatic glycogen storage. <i>Journal of Clinical Investigation</i> , 2005, 115, 3554-3563.                                       | 3.9  | 263       |
| 110 | Role of hepatic STAT3 in brain-insulin action on hepatic glucose production. <i>Cell Metabolism</i> , 2006, 3, 267-275.                                                                                                           | 7.2  | 261       |
| 111 | Hepatic insulin resistance directly promotes formation of cholesterol gallstones. <i>Nature Medicine</i> , 2008, 14, 778-782.                                                                                                     | 15.2 | 260       |
| 112 | Ectopic brown adipose tissue in muscle provides a mechanism for differences in risk of metabolic syndrome in mice. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 2366-2371. | 3.3  | 256       |
| 113 | Alterations in Insulin Binding Induced by Changes in Vivo in the Levels of Glucocorticoids and Growth Hormone*. <i>Endocrinology</i> , 1978, 103, 1054-1066.                                                                      | 1.4  | 254       |
| 114 | Molecular Balance between the Regulatory and Catalytic Subunits of Phosphoinositide 3-Kinase Regulates Cell Signaling and Survival. <i>Molecular and Cellular Biology</i> , 2002, 22, 965-977.                                    | 1.1  | 254       |
| 115 | Dissection of the insulin signaling pathway via quantitative phosphoproteomics. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 2451-2456.                                    | 3.3  | 250       |
| 116 | Divergent regulation of hepatic glucose and lipid metabolism by phosphoinositide 3-kinase via Akt and PKC $\delta$ /1 $\alpha$ . <i>Cell Metabolism</i> , 2006, 3, 343-353.                                                       | 7.2  | 249       |
| 117 | Insulin Receptor Deficiency in Genetic and Acquired Obesity. <i>Journal of Clinical Investigation</i> , 1975, 56, 769-780.                                                                                                        | 3.9  | 248       |
| 118 | Intrinsic Differences in Adipocyte Precursor Cells From Different White Fat Depots. <i>Diabetes</i> , 2012, 61, 1691-1699.                                                                                                        | 0.3  | 247       |
| 119 | Altered function of insulin receptor substrate-1 $\beta$ deficient mouse islets and cultured $\beta$ -cell lines. <i>Journal of Clinical Investigation</i> , 1999, 104, R69-R75.                                                  | 3.9  | 246       |
| 120 | Total insulin and IGF-I resistance in pancreatic $\beta$ cells causes overt diabetes. <i>Nature Genetics</i> , 2006, 38, 583-588.                                                                                                 | 9.4  | 239       |
| 121 | Effects of Autoantibodies to the Insulin Receptor on Isolated Adipocytes. <i>Journal of Clinical Investigation</i> , 1977, 60, 1094-1106.                                                                                         | 3.9  | 239       |
| 122 | Complementary roles of IRS-1 and IRS-2 in the hepatic regulation of metabolism. <i>Journal of Clinical Investigation</i> , 2005, 115, 718-727.                                                                                    | 3.9  | 237       |
| 123 | Genetic Determinants of Energy Expenditure and Insulin Resistance in Diet-Induced Obesity in Mice. <i>Diabetes</i> , 2004, 53, 3274-3285.                                                                                         | 0.3  | 236       |
| 124 | PDX-1 haploinsufficiency limits the compensatory islet hyperplasia that occurs in response to insulin resistance. <i>Journal of Clinical Investigation</i> , 2004, 114, 828-836.                                                  | 3.9  | 236       |
| 125 | Sirt3 Regulates Metabolic Flexibility of Skeletal Muscle Through Reversible Enzymatic Deacetylation. <i>Diabetes</i> , 2013, 62, 3404-3417.                                                                                       | 0.3  | 234       |
| 126 | Divergent effects of glucose and fructose on hepatic lipogenesis and insulin signaling. <i>Journal of Clinical Investigation</i> , 2017, 127, 4059-4074.                                                                          | 3.9  | 233       |



| #   | ARTICLE                                                                                                                                                                                                                                           | IF   | CITATIONS |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|-----------|
| 127 | Role of MicroRNA Processing in Adipose Tissue in Stress Defense and Longevity. <i>Cell Metabolism</i> , 2012, 16, 336-347.                                                                                                                        | 7.2  | 229       |
| 128 | Increased insulin sensitivity in mice lacking p85 $\hat{A}$ subunit of phosphoinositide 3-kinase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 419-424.                                     | 3.3  | 228       |
| 129 | Insulin receptor functionally enhances multistage tumor progression and conveys intrinsic resistance to IGF-1R targeted therapy. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 10791-10798. | 3.3  | 223       |
| 130 | Central insulin action regulates peripheral glucose and fat metabolism in mice. <i>Journal of Clinical Investigation</i> , 2008, 118, 2132-47.                                                                                                    | 3.9  | 223       |
| 131 | Dietary Leucine - An Environmental Modifier of Insulin Resistance Acting on Multiple Levels of Metabolism. <i>PLoS ONE</i> , 2011, 6, e21187.                                                                                                     | 1.1  | 222       |
| 132 | $\hat{I}23$ -Adrenergic Stimulation Differentially Inhibits Insulin Signaling and Decreases Insulin-induced Glucose Uptake in Brown Adipocytes. <i>Journal of Biological Chemistry</i> , 1999, 274, 34795-34802.                                  | 1.6  | 220       |
| 133 | Insulin Receptor Knockout Mice. <i>Annual Review of Physiology</i> , 2003, 65, 313-332.                                                                                                                                                           | 5.6  | 220       |
| 134 | Effects of Diet and Genetic Background on Sterol Regulatory Element-Binding Protein-1c, Stearoyl-CoA Desaturase 1, and the Development of the Metabolic Syndrome. <i>Diabetes</i> , 2005, 54, 1314-1323.                                          | 0.3  | 216       |
| 135 | Mouse Models of Insulin Resistance. <i>Physiological Reviews</i> , 2004, 84, 623-647.                                                                                                                                                             | 13.1 | 211       |
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