

Animal models of metabolic syndrome: a review

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Citation Report

#	ARTICLE	IF	CITATIONS
1	Social jet-lag potentiates obesity and metabolic syndrome when combined with cafeteria diet in rats. <i>Metabolism: Clinical and Experimental</i> , 2017, 72, 83-93.	1.5	34
2	Animal models for assessing the impact of natural products on the aetiology and metabolic pathophysiology of Type 2 diabetes. <i>Biomedicine and Pharmacotherapy</i> , 2017, 89, 1242-1251.	2.5	51
3	When Enough Is Enough: Decision Criteria for Moving a Known Drug into Clinical Testing for a New Indication in the Absence of Preclinical Efficacy Data. <i>Assay and Drug Development Technologies</i> , 2017, 15, 354-361.	0.6	4
4	<i>Dipteryx alata</i> Vogel May Improve Lipid Profile and Atherogenic Indices in Wistar Rats and Atherogenic Indices. <i>Journal of Medicinal Food</i> , 2017, 20, 1121-1126.	0.8	9
5	Examining a role for PKC δ oxidation in the pathogenesis of cardiovascular dysfunction during diet-induced obesity. <i>Free Radical Biology and Medicine</i> , 2017, 110, 390-398.	1.3	8
6	Vitamin E As a Potential Interventional Treatment for Metabolic Syndrome: Evidence from Animal and Human Studies. <i>Frontiers in Pharmacology</i> , 2017, 8, 444.	1.6	89
7	Cardiac Ion Channel Regulation in Obesity and the Metabolic Syndrome: Relevance to Long QT Syndrome and Atrial Fibrillation. <i>Frontiers in Physiology</i> , 2017, 8, 431.	1.3	26
8	Development and characterization of an experimental model of diet-induced metabolic syndrome in rabbit. <i>PLoS ONE</i> , 2017, 12, e0178315.	1.1	26
9	Early changes in tissue amino acid metabolism and nutrient routing in rats fed a high-fat diet: evidence from natural isotope abundances of nitrogen and carbon in tissue proteins. <i>British Journal of Nutrition</i> , 2018, 119, 981-991.	1.2	19
10	Obesity, Cortisol Excess, and the Hypothalamic-Pituitary-Adrenal Axis. , 2018, , 37-48.		0
11	Losartan prevents the imbalance between renal dopaminergic and renin angiotensin systems induced by fructose overload. l-Dopa/dopamine index as new potential biomarker of renal dysfunction. <i>Metabolism: Clinical and Experimental</i> , 2018, 85, 271-285.	1.5	17
12	An Experimental Model of Diet-Induced Metabolic Syndrome in Rabbit: Methodological Considerations, Development, and Assessment. <i>Journal of Visualized Experiments</i> , 2018, , .	0.2	3
13	E2F1 promotes hepatic gluconeogenesis and contributes to hyperglycemia during diabetes. <i>Molecular Metabolism</i> , 2018, 11, 104-112.	3.0	25
14	Effects of chronic fructose overload on renal dopaminergic system: alteration of urinary L-dopa/dopamine index correlates to hypertension and precedes kidney structural damage. <i>Journal of Nutritional Biochemistry</i> , 2018, 51, 47-55.	1.9	9
15	Alterations in gut microbiota associated with a cafeteria diet and the physiological consequences in the host. <i>International Journal of Obesity</i> , 2018, 42, 746-754.	1.6	31
16	Improving Metabolic Health Through Precision Dietetics in Mice. <i>Genetics</i> , 2018, 208, 399-417.	1.2	44
17	The Effects of a Modified High-carbohydrate High-fat Diet on Metabolic Syndrome Parameters in Male Rats. <i>Experimental and Clinical Endocrinology and Diabetes</i> , 2018, 126, 205-212.	0.6	43
18	Estrogen and high-fat diet induced alterations in C57BL/6 mice endometrial transcriptome profile. <i>Endocrine Connections</i> , 2018, 7, 36-46.	0.8	10

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19	Genetics of metabolic syndrome: potential clues from wild-derived inbred mouse strains. <i>Physiological Genomics</i> , 2018, 50, 35-51.	1.0	13
20	Rodent Models of Obesity and Diabetes. , 2018, , .		0
21	Biochemical and Morphological Parameters of Inbred/Outbred Lines and DBCB Tetrahybrid Mouse in High-Sugar In Vivo Model of Metabolic Syndrome. <i>Bulletin of Experimental Biology and Medicine</i> , 2018, 166, 96-101.	0.3	2
22	Telmisartan is effective to ameliorate metabolic syndrome in rat model – a preclinical report. <i>Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy</i> , 2018, Volume 11, 901-911.	1.1	7
23	Maternal fructose induces gender-dependent changes in both LXR \pm promoter methylation and cholesterol metabolism in progeny. <i>Journal of Nutritional Biochemistry</i> , 2018, 61, 163-172.	1.9	24
24	Characterisation of a Mouse Model of Breast Cancer with Metabolic Syndrome. <i>In Vivo</i> , 2018, 32, 1071-1080.	0.6	7
25	Interspecific Differences in Behavioral Responses and Neuromotorics between Laboratory Rodents Receiving Rations with Easily Digested Carbohydrates. <i>Bulletin of Experimental Biology and Medicine</i> , 2018, 165, 5-9.	0.3	7
26	Galangin $\text{\textcircled{TM}}$ s potential as a functional food ingredient. <i>Journal of Functional Foods</i> , 2018, 46, 490-503.	1.6	27
27	Effect of infliximab and tocilizumab on fructose-induced hyperinsulinemia and hypertension in rats. <i>Biomedicine and Pharmacotherapy</i> , 2018, 105, 182-186.	2.5	29
28	Biochemical and Ultrastructural Cardiac Changes Induced by High-Fat Diet in Female and Male Prepubertal Rabbits. <i>Analytical Cellular Pathology</i> , 2018, 2018, 1-16.	0.7	10
29	Effects of <i>Moringa oleifera</i> leaf powder on metabolic syndrome induced in male Wistar rats: a preliminary study. <i>Journal of International Medical Research</i> , 2018, 46, 3327-3336.	0.4	22
30	The Nile Rat (<i>Arvicantis niloticus</i>) as a Superior Carbohydrate-Sensitive Model for Type 2 Diabetes Mellitus (T2DM). <i>Nutrients</i> , 2018, 10, 235.	1.7	26
31	Effects of metabolic syndrome on bone mineral density, histomorphometry and remodelling markers in male rats. <i>PLoS ONE</i> , 2018, 13, e0192416.	1.1	28
32	Involvement of the hepatic branch of the vagus nerve in the regulation of plasma adipokine levels in rats fed a high-fructose diet. <i>Journal of Nutritional Biochemistry</i> , 2019, 71, 90-97.	1.9	6
33	Intra-Abdominal Fat Adipocyte Hypertrophy through a Progressive Alteration of Lipolysis and Lipogenesis in Metabolic Syndrome Rats. <i>Nutrients</i> , 2019, 11, 1529.	1.7	14
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35	Diet-Induced Rabbit Models for the Study of Metabolic Syndrome. <i>Animals</i> , 2019, 9, 463.	1.0	24
36	Full Transcriptome Profiling of the Liver of Fat-, Fructose- and Cholesterol-Fed C57Black/6J Mice. <i>Russian Journal of Genetics</i> , 2019, 55, 399-410.	0.2	2

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37	High-Carbohydrate Diets Affect Accumulation of Lipofuscin-Like Pigment in the Kidneys of Mice and Rats: Autofluorescence Confocal Microscopy Analysis. <i>Bulletin of Experimental Biology and Medicine</i> , 2019, 167, 628-633.	0.3	0
38	Comparative Analysis of JNK1 Expression in Liver Cells in Rats of Different Lines Receiving Excess of Easily Digested Carbohydrates: Confocal Microscopy. <i>Bulletin of Experimental Biology and Medicine</i> , 2019, 167, 698-701.	0.3	0
39	The effects of l-Carnosine on development of metabolic syndrome in rats. <i>Life Sciences</i> , 2019, 237, 116905.	2.0	21
40	<i>Artemisia herba-alba</i> aqueous extract improves insulin sensitivity and hepatic steatosis in rodent model of fructose-induced metabolic syndrome. <i>Archives of Physiology and Biochemistry</i> , 2021, 127, 541-550.	1.0	8
41	Brain Insulin Resistance and Hippocampal Plasticity: Mechanisms and Biomarkers of Cognitive Decline. <i>Frontiers in Neuroscience</i> , 2019, 13, 788.	1.4	153
42	Comparative Whole-Transcriptome Profiling of Liver Tissue from Wistar Rats Fed with Diets Containing Different Amounts of Fat, Fructose, and Cholesterol. <i>Biochemistry (Moscow)</i> , 2019, 84, 1093-1106.	0.7	4
43	Rat Models of Metabolic Syndrome. <i>Methods in Molecular Biology</i> , 2019, 2018, 269-285.	0.4	21
44	Metabolic Profiling of the Diabetic Heart: Toward a Richer Picture. <i>Frontiers in Physiology</i> , 2019, 10, 639.	1.3	27
45	Thermoneutral temperature reduces liver volume but increases fat content in a mammalian hibernator. <i>Journal of Thermal Biology</i> , 2019, 83, 172-177.	1.1	0
46	Preventive Effects of the Marine Microalga <i>Phaeodactylum tricornutum</i> , Used as a Food Supplement, on Risk Factors Associated with Metabolic Syndrome in Wistar Rats. <i>Nutrients</i> , 2019, 11, 1069.	1.7	25
47	Impaired Activity of Ryanodine Receptors Contributes to Calcium Mishandling in Cardiomyocytes of Metabolic Syndrome Rats. <i>Frontiers in Physiology</i> , 2019, 10, 520.	1.3	16
48	Animal Models of Hypertension: A Scientific Statement From the American Heart Association. <i>Hypertension</i> , 2019, 73, e87-e120.	1.3	177
49	Non-Nutritive Sweeteners and Their Implications on the Development of Metabolic Syndrome. <i>Nutrients</i> , 2019, 11, 644.	1.7	52
50	Derivation of adult canine intestinal organoids for translational research in gastroenterology. <i>BMC Biology</i> , 2019, 17, 33.	1.7	82
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52	Sildenafil citrate long-term treatment effects on cardiovascular reactivity in a SHR experimental model of metabolic syndrome. <i>PLoS ONE</i> , 2019, 14, e0223914.	1.1	6
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54	Xylooligosaccharide supplementation decreases visceral fat accumulation and modulates cecum microbiome in mice. <i>Journal of Functional Foods</i> , 2019, 52, 138-146.	1.6	38

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58	Placental structure in gestational diabetes mellitus. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165535.	1.8	66
59	Effects of co-administered melatonin, fructose and bisphenol A (BPA) on rat epididymis and sperm characteristics. <i>Biotechnic and Histochemistry</i> , 2020, 95, 18-26.	0.7	15
60	Dietary intervention using (1,3)/(1,6)- β -glucan, a fungus-derived soluble prebiotic ameliorates high-fat diet-induced metabolic distress and alters beneficially the gut microbiota in mice model. <i>European Journal of Nutrition</i> , 2020, 59, 2617-2629.	1.8	32
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63	Hyperlipidaemia and cardioprotection: Animal models for translational studies. <i>British Journal of Pharmacology</i> , 2020, 177, 5287-5311.	2.7	43
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66	Plasma Lipidomics Reveals Insights into Anti-Obesity Effect of Chrysanthemum morifolium Ramat Leaves and Its Constituent Luteolin in High-Fat Diet-Induced Dyslipidemic Mice. <i>Nutrients</i> , 2020, 12, 2973.	1.7	16
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70	Regulation of inflammatory response and oxidative stress by tocotrienol in a rat model of non-alcoholic fatty liver disease. <i>Journal of Functional Foods</i> , 2020, 74, 104209.	1.6	11
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75	Regulation of Vascular Smooth Muscle Contractions in the Model of Metabolic Syndrome. <i>Bulletin of Experimental Biology and Medicine</i> , 2020, 170, 196-199.	0.3	4
76	High-fat diet-induced adipose tissue expansion occurs prior to insulin resistance in C57BL/6J mice. <i>Chronic Diseases and Translational Medicine</i> , 2020, 6, 198-207.	0.9	18
77	Diet-induced rodent models of obesity-related metabolic disorders—A guide to a translational perspective. <i>Obesity Reviews</i> , 2020, 21, e13081.	3.1	37
78	Brain insulin resistance impairs hippocampal plasticity. <i>Vitamins and Hormones</i> , 2020, 114, 281-306.	0.7	17
79	Biochemical and histopathological assessment of liver in a rat model of metabolic syndrome induced by high-carbohydrate high-fat diet. <i>Journal of Food Biochemistry</i> , 2020, 44, e13371.	1.2	4
80	Exercise Training Protocols in Rabbits Applied in Cardiovascular Research. <i>Animals</i> , 2020, 10, 1263.	1.0	3
81	A non-pharmacological therapeutic approach in the gut triggers distal metabolic rewiring capable of ameliorating diet-induced dysfunctions encompassed by metabolic syndrome. <i>Scientific Reports</i> , 2020, 10, 12915.	1.6	7
82	The Effect of Quercetin on Metabolism and Behavioral Responses in Mice with Normal and Impaired Leptin Reception. <i>Biology Bulletin</i> , 2020, 47, 407-416.	0.1	1
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84	Intestinal fructose absorption: Modulation and relation to human diseases. <i>PharmaNutrition</i> , 2020, 14, 100235.	0.8	3
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90	Metabolic Syndrome Triggered by Fructose Diet Impairs Neuronal Function and Vascular Integrity in ApoE-KO Mouse Retinas: Implications of Autophagy Deficient Activation. <i>Frontiers in Cell and Developmental Biology</i> , 2020, 8, 573987.	1.8	8

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91	The Microbiota and Gut-Related Disorders: Insights from Animal Models. <i>Cells</i> , 2020, 9, 2401.	1.8	18
92	Hypolipidemic and Hypoglycaemic Effect of Wholemeal Bread with Amaranth (<i>Amaranthus dubius</i>) Tj ETQq1 1 0.784314 rgBT ₅ /Overlook	1.9	5
93	Body condition and poxvirus infection predict circulating glucose levels in a colorful songbird that inhabits urban and rural environments. <i>Journal of Experimental Zoology Part A: Ecological and Integrative Physiology</i> , 2020, 333, 561-568.	0.9	9
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95	There is No Distinctive Gut Microbiota Signature in the Metabolic Syndrome: Contribution of Cardiovascular Disease Risk Factors and Associated Medication. <i>Microorganisms</i> , 2020, 8, 416.	1.6	18
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99	Biochemical and nutritional overview of diet-induced metabolic syndrome models in rats: what is the best choice?. <i>Nutrition and Diabetes</i> , 2020, 10, 24.	1.5	60
100	Pitolisant protects mice chronically treated with corticosterone from some behavioral but not metabolic changes in corticosterone-induced depression model. <i>Pharmacology Biochemistry and Behavior</i> , 2020, 196, 172974.	1.3	5
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106	18 α -Glycyrrhetic acid (GA) ameliorates fructose-induced nephropathy in mice by suppressing oxidative stress, dyslipidemia and inflammation. <i>Biomedicine and Pharmacotherapy</i> , 2020, 125, 109702.	2.5	15
107	Antibiotic Treatment Does Not Ameliorate the Metabolic Changes in Rats Presenting Dysbiosis After Consuming a High Fructose Diet. <i>Nutrients</i> , 2020, 12, 203.	1.7	10
108	Molecular changes in hepatic metabolism in ZSD rats-“A new polygenic rodent model of obesity, metabolic syndrome, and diabetes. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2020, 1866, 165688.	1.8	8

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109	Metabolic syndrome diminishes insulin-induced Akt activation and causes a redistribution of Akt-interacting proteins in cardiomyocytes. <i>PLoS ONE</i> , 2020, 15, e0228115.	1.1	14
110	Maternal Resveratrol Treatment Re-Programs and Maternal High-Fat Diet-Induced Retroperitoneal Adiposity in Male Offspring. <i>International Journal of Environmental Research and Public Health</i> , 2020, 17, 2780.	1.2	18
111	Beneficial Effects of Cornelian Cherries on Lipid Profile and NO/ROS Balance in Obese Zucker Rats: Comparison with CoQ10. <i>Molecules</i> , 2020, 25, 1922.	1.7	6
112	Inhibition of endoplasmic reticulum stress ameliorates cardiovascular injury in a rat model of metabolic syndrome. <i>Journal of Molecular and Cellular Cardiology</i> , 2020, 143, 15-25.	0.9	11
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116	Immunobiology of T Cells in Sjögren's Syndrome. <i>Clinical Reviews in Allergy and Immunology</i> , 2021, 60, 111-131.	2.9	46
117	Protective effect of <i>Curcuma amada</i> acetone extract against high-fat and high-sugar diet-induced obesity and memory impairment. <i>Nutritional Neuroscience</i> , 2021, 24, 212-225.	1.5	16
118	Cardiometabolic Syndrome: An Update on Available Mouse Models. <i>Thrombosis and Haemostasis</i> , 2021, 121, 703-715.	1.8	10
119	The use of combined high-fructose diet and glyphosate to model rats type 2 diabetes symptomatology. <i>Toxicology Mechanisms and Methods</i> , 2021, 31, 126-137.	1.3	8
120	Plant secondary metabolites for preferential targeting among various stressors of metabolic syndrome. <i>Studies in Natural Products Chemistry</i> , 2021, , 221-261.	0.8	5
121	Diosmetin attenuates metabolic syndrome and left ventricular alterations <i>via</i> the suppression of angiotensin II/AT ₁ receptor/gp ^{91phox} /p-NF- κ B protein expression in high-fat diet fed rats. <i>Food and Function</i> , 2021, 12, 1469-1481.	2.1	14
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124	Dietary and metabolic risk of neuropsychiatric disorders: insights from animal models. <i>British Journal of Nutrition</i> , 2021, 126, 1771-1787.	1.2	8
125	Interaction of Obesity and Hypertension on Cardiac Metabolic Remodeling and Survival Following Myocardial Infarction. <i>Journal of the American Heart Association</i> , 2021, 10, e018212.	1.6	10
126	Tadalafil ameliorates bladder overactivity by restoring insulin-activated detrusor relaxation via the bladder mucosal IRS/PI3K/AKT/eNOS pathway in fructose-fed rats. <i>Scientific Reports</i> , 2021, 11, 8202.	1.6	12

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127	Maternal Quercetin Consumption during Pregnancy May Help Regulate Total Cholesterol/HDL-Cholesterol Ratio without Effect on Cholesterol Levels in Male Progeny Consuming High-Fat Diet. <i>Nutrients</i> , 2021, 13, 1242.	1.7	2
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130	Metabolic syndrome in adult male rats induced by feeding beef tallow-enriched homemade diet with fructose-containing drinking water. <i>Comparative Clinical Pathology</i> , 2021, 30, 541-547.	0.3	1
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132	A Review on Obesity Management through Natural Compounds and a Green Nanomedicine-Based Approach. <i>Molecules</i> , 2021, 26, 3278.	1.7	28
133	Antihyperglycemic and cholesterol-lowering potential of dietary fibre from lemongrass (<i>Cymbopogon</i>) Tj ETQq1 1 0,784314 rgBT /Over	0.2	2
134	The effects of two types of Western diet on the induction of metabolic syndrome and cardiac remodeling in obese rats. <i>Journal of Nutritional Biochemistry</i> , 2021, 92, 108625.	1.9	7
135	Development of rat metabolic syndrome models: A review. <i>Veterinary World</i> , 2021, 14, 1774-1783.	0.7	11
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137	The starch-rich diet causes lipidemia while the fat-rich diet induces visceral adiposity, meta-inflammation, and insulin resistance differentially in immune biased mouse strains. <i>Food Bioscience</i> , 2021, 42, 101136.	2.0	3
138	Delay first active-phase meal, breakfast-skipping model, increases the risk of metabolic disorders in females rats. <i>Biological Rhythm Research</i> , 0, , 1-16.	0.4	1
139	In Silico-Based Design and In Vivo Evaluation of an Anthranilic Acid Derivative as a Multitarget Drug in a Diet-Induced Metabolic Syndrome Model. <i>Pharmaceutics</i> , 2021, 14, 914.	1.7	5
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141	Rodent models of metabolic disorders: considerations for use in studies of neonatal programming. <i>British Journal of Nutrition</i> , 2022, 128, 802-827.	1.2	1
142	Diagnostic Criteria for Metabolic Syndrome in Diet-Induced Rodent Models: A Systematic Review. <i>Current Diabetes Reviews</i> , 2021, 17, e140421192834.	0.6	2
143	Biochemical and Behavioral Consequences of Ethanol Intake in a Mouse Model of Metabolic Syndrome. <i>International Journal of Molecular Sciences</i> , 2021, 22, 807.	1.8	2
144	The Marine Microalga, <i>Tisochrysis lutea</i> , Protects against Metabolic Disorders Associated with Metabolic Syndrome and Obesity. <i>Nutrients</i> , 2021, 13, 430.	1.7	15
145	Transcriptomic and metabonomic profiling reveal the anti-obesity effects of Chikusetsusaponin V, a compound extracted from <i>Panax japonicus</i> . <i>Journal of Pharmacy and Pharmacology</i> , 2021, 73, 60-69.	1.2	4

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