

James R Bain

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

115
papers

13,376
citations

40
h-index

115
g-index

120
ext. papers

15,746
ext. citations

7.9
avg, IF

5.57
L-index

#	Paper	IF	Citations
115	Gut microbiota from twins discordant for obesity modulate metabolism in mice. <i>Science</i> , 2013 , 341, 1241-1244	33.4	2251
114	A branched-chain amino acid-related metabolic signature that differentiates obese and lean humans and contributes to insulin resistance. <i>Cell Metabolism</i> , 2009 , 9, 311-26	24.6	2050
113	Mitochondrial overload and incomplete fatty acid oxidation contribute to skeletal muscle insulin resistance. <i>Cell Metabolism</i> , 2008 , 7, 45-56	24.6	1378
112	SIRT3 regulates mitochondrial fatty-acid oxidation by reversible enzyme deacetylation. <i>Nature</i> , 2010 , 464, 121-5	50.4	1143
111	Dissociation of hepatic steatosis and insulin resistance in mice overexpressing DGAT in the liver. <i>Cell Metabolism</i> , 2007 , 6, 69-78	24.6	402
110	The impact of a consortium of fermented milk strains on the gut microbiome of gnotobiotic mice and monozygotic twins. <i>Science Translational Medicine</i> , 2011 , 3, 106ra106	17.5	384
109	Sialylated Milk Oligosaccharides Promote Microbiota-Dependent Growth in Models of Infant Undernutrition. <i>Cell</i> , 2016 , 164, 859-71	56.2	370
108	Association of a peripheral blood metabolic profile with coronary artery disease and risk of subsequent cardiovascular events. <i>Circulation: Cardiovascular Genetics</i> , 2010 , 3, 207-14		313
107	Relationships between circulating metabolic intermediates and insulin action in overweight to obese, inactive men and women. <i>Diabetes Care</i> , 2009 , 32, 1678-83	14.6	305
106	Metabolomics applied to diabetes research: moving from information to knowledge. <i>Diabetes</i> , 2009 , 58, 2429-43	0.9	280
105	Differential metabolic impact of gastric bypass surgery versus dietary intervention in obese diabetic subjects despite identical weight loss. <i>Science Translational Medicine</i> , 2011 , 3, 80re2	17.5	271
104	Leptin therapy in insulin-deficient type I diabetes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 4813-9	11.5	258
103	TRB3 links the E3 ubiquitin ligase COP1 to lipid metabolism. <i>Science</i> , 2006 , 312, 1763-6	33.3	240
102	Dissecting the in vivo metabolic potential of two human gut acetogens. <i>Journal of Biological Chemistry</i> , 2010 , 285, 22082-90	5.4	225
101	Baseline metabolomic profiles predict cardiovascular events in patients at risk for coronary artery disease. <i>American Heart Journal</i> , 2012 , 163, 844-850.e1	4.9	215
100	Sirt3 regulates metabolic flexibility of skeletal muscle through reversible enzymatic deacetylation. <i>Diabetes</i> , 2013 , 62, 3404-17	0.9	182
99	Genetic networks of liver metabolism revealed by integration of metabolic and transcriptional profiling. <i>PLoS Genetics</i> , 2008 , 4, e1000034	6	158

98	Branched chain amino acids are novel biomarkers for discrimination of metabolic wellness. <i>Metabolism: Clinical and Experimental</i> , 2013 , 62, 961-9	12.7	148
97	Branched-chain amino acid restriction in Zucker-fatty rats improves muscle insulin sensitivity by enhancing efficiency of fatty acid oxidation and acyl-glycine export. <i>Molecular Metabolism</i> , 2016 , 5, 538-551	8.8	139
96	Metabolomic profiling reveals distinct patterns of myocardial substrate use in humans with coronary artery disease or left ventricular dysfunction during surgical ischemia/reperfusion. <i>Circulation</i> , 2009 , 119, 1736-46	16.7	122
95	High heritability of metabolomic profiles in families burdened with premature cardiovascular disease. <i>Molecular Systems Biology</i> , 2009 , 5, 258	12.2	121
94	Severe acute malnutrition in childhood: hormonal and metabolic status at presentation, response to treatment, and predictors of mortality. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2014 , 99, 2128-37	5.6	110
93	Metabolomic Profiling Identifies Novel Circulating Biomarkers of Mitochondrial Dysfunction Differentially Elevated in Heart Failure With Preserved Versus Reduced Ejection Fraction: Evidence for Shared Metabolic Impairments in Clinical Heart Failure. <i>Journal of the American Heart Association</i> , 2016 , 5, e007811	6	101
92	A lipidomics analysis of the relationship between dietary fatty acid composition and insulin sensitivity in young adults. <i>Diabetes</i> , 2013 , 62, 1054-63	0.9	86
91	Chemical knockout of pantothenate kinase reveals the metabolic and genetic program responsible for hepatic coenzyme A homeostasis. <i>Chemistry and Biology</i> , 2007 , 14, 291-302		85
90	Impact of combined resistance and aerobic exercise training on branched-chain amino acid turnover, glycine metabolism and insulin sensitivity in overweight humans. <i>Diabetologia</i> , 2015 , 58, 2324-35	10.3	82
89	Metabolomics reveals broad-scale metabolic perturbations in hyperglycemic mothers during pregnancy. <i>Diabetes Care</i> , 2014 , 37, 158-66	14.6	79
88	Loss of SIRT3 leads to a compensatory shift in cellular metabolism promoting cancer cell growth. <i>Cancer & Metabolism</i> , 2014 , 2,	5.4	78
87	Validation of the association between a branched chain amino acid metabolite profile and extremes of coronary artery disease in patients referred for cardiac catheterization. <i>Atherosclerosis</i> , 2014 , 232, 191-6	3.1	77
86	The STEDMAN project: biophysical, biochemical and metabolic effects of a behavioral weight loss intervention during weight loss, maintenance, and regain. <i>OMICS A Journal of Integrative Biology</i> , 2009 , 13, 21-35	3.8	72
85	Sex differences in biomarkers associated with insulin resistance in obese adolescents: metabolomic profiling and principal components analysis. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2014 , 99, 4730-9	5.6	70
84	An adenovirus vector for efficient RNA interference-mediated suppression of target genes in insulinoma cells and pancreatic islets of langerhans. <i>Diabetes</i> , 2004 , 53, 2190-4	0.9	69
83	Dietary intake of palmitate and oleate has broad impact on systemic and tissue lipid profiles in humans. <i>American Journal of Clinical Nutrition</i> , 2014 , 99, 436-45	7	59
82	Metabolomic Quantitative Trait Loci (mQTL) Mapping Implicates the Ubiquitin Proteasome System in Cardiovascular Disease Pathogenesis. <i>PLoS Genetics</i> , 2015 , 11, e1005553	6	57
81	Skeletal muscle Nur77 expression enhances oxidative metabolism and substrate utilization. <i>Journal of Lipid Research</i> , 2012 , 53, 2610-9	6.3	53

80	Maternal BMI and Glycemia Impact the Fetal Metabolome. <i>Diabetes Care</i> , 2017 , 40, 902-910	14.6	49
79	Associations of maternal BMI and insulin resistance with the maternal metabolome and newborn outcomes. <i>Diabetologia</i> , 2017 , 60, 518-530	10.3	48
78	The coactivator SRC-1 is an essential coordinator of hepatic glucose production. <i>Cell Metabolism</i> , 2010 , 12, 606-18	24.6	47
77	Exercise-induced changes in metabolic intermediates, hormones, and inflammatory markers associated with improvements in insulin sensitivity. <i>Diabetes Care</i> , 2011 , 34, 174-6	14.6	45
76	Race and sex differences in small-molecule metabolites and metabolic hormones in overweight and obese adults. <i>OMICS A Journal of Integrative Biology</i> , 2013 , 17, 627-35	3.8	42
75	Pathogenesis of A β ketosis-prone diabetes. <i>Diabetes</i> , 2013 , 62, 912-22	0.9	40
74	Metabolic Networks and Metabolites Underlie Associations Between Maternal Glucose During Pregnancy and Newborn Size at Birth. <i>Diabetes</i> , 2016 , 65, 2039-50	0.9	39
73	Disrupted Maturation of the Microbiota and Metabolome among Extremely Preterm Infants with Postnatal Growth Failure. <i>Scientific Reports</i> , 2019 , 9, 8167	4.9	38
72	Effect of caloric restriction with and without exercise on metabolic intermediates in nonobese men and women. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2011 , 96, E312-21	5.6	36
71	Plasma acylcarnitines are associated with physical performance in elderly men. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2011 , 66, 548-53	6.4	34
70	Analysis of serum metabolic profiles in women with endometrial cancer and controls in a population-based case-control study. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2012 , 97, 3216-23	5.6	33
69	The Study of the Effects of Diet on Metabolism and Nutrition (STEDMAN) weight loss project: Rationale and design. <i>Contemporary Clinical Trials</i> , 2005 , 26, 616-25	2.3	33
68	Fatty acid elongase-5 (Elovl5) regulates hepatic triglyceride catabolism in obese C57BL/6J mice. <i>Journal of Lipid Research</i> , 2014 , 55, 1448-64	6.3	30
67	Caloric restriction alters the metabolic response to a mixed-meal: results from a randomized, controlled trial. <i>PLoS ONE</i> , 2012 , 7, e28190	3.7	29
66	Targeted Metabolomics Demonstrates Distinct and Overlapping Maternal Metabolites Associated With BMI, Glucose, and Insulin Sensitivity During Pregnancy Across Four Ancestry Groups. <i>Diabetes Care</i> , 2017 , 40, 911-919	14.6	27
65	Metabolic profiling in Prader-Willi syndrome and nonsyndromic obesity: sex differences and the role of growth hormone. <i>Clinical Endocrinology</i> , 2015 , 83, 797-805	3.4	27
64	MuRF2 regulates PPAR α activity to protect against diabetic cardiomyopathy and enhance weight gain induced by a high fat diet. <i>Cardiovascular Diabetology</i> , 2015 , 14, 97	8.7	27
63	Mixture model normalization for non-targeted gas chromatography/mass spectrometry metabolomics data. <i>BMC Bioinformatics</i> , 2017 , 18, 84	3.6	26

62	Non-targeted metabolomics of double-mutant cardiomyocytes reveals a novel role for SWI/SNF complexes in metabolic homeostasis. <i>Metabolomics</i> , 2015 , 11, 1287-1301	4.7	26
61	Daily Variation of Serum Acylcarnitines and Amino Acids. <i>Metabolomics</i> , 2012 , 8, 556-565	4.7	26
60	Exercise-Induced Alterations in Skeletal Muscle, Heart, Liver, and Serum Metabolome Identified by Non-Targeted Metabolomics Analysis. <i>Metabolites</i> , 2017 , 7,	5.6	25
59	Research resource: tissue- and pathway-specific metabolomic profiles of the steroid receptor coactivator (SRC) family. <i>Molecular Endocrinology</i> , 2013 , 27, 366-80		25
58	Marginal vitamin B-6 deficiency decreases plasma (n-3) and (n-6) PUFA concentrations in healthy men and women. <i>Journal of Nutrition</i> , 2012 , 142, 1791-7	4.1	25
57	Cardiomyocyte-Specific Human Bcl2-Associated Anthanogene 3 P209L Expression Induces Mitochondrial Fragmentation, Bcl2-Associated Anthanogene 3 Haploinsufficiency, and Activates p38 Signaling. <i>American Journal of Pathology</i> , 2016 , 186, 1989-2007	5.8	25
56	A Testosterone Metabolite 19-Hydroxyandrostenedione Induces Neuroendocrine Trans-Differentiation of Prostate Cancer Cells an Ectopic Olfactory Receptor. <i>Frontiers in Oncology</i> , 2018 , 8, 162	5.3	24
55	A metabolomics comparison of plant-based meat and grass-fed meat indicates large nutritional differences despite comparable Nutrition Facts panels. <i>Scientific Reports</i> , 2021 , 11, 13828	4.9	23
54	Maternal metabolites during pregnancy are associated with newborn outcomes and hyperinsulinaemia across ancestries. <i>Diabetologia</i> , 2019 , 62, 473-484	10.3	23
53	Rapid and weight-independent improvement of glucose tolerance induced by a peptide designed to elicit apoptosis in adipose tissue endothelium. <i>Diabetes</i> , 2012 , 61, 2299-310	0.9	20
52	Muscle-Liver Trafficking of BCAA-Derived Nitrogen Underlies Obesity-Related Glycine Depletion. <i>Cell Reports</i> , 2020 , 33, 108375	10.6	20
51	Research Resource: Roles for Calcium/Calmodulin-Dependent Protein Kinase Kinase 2 (CaMKK2) in Systems Metabolism. <i>Molecular Endocrinology</i> , 2016 , 30, 557-72		20
50	Sildenafil Treatment in Heart Failure With Preserved Ejection Fraction: Targeted Metabolomic Profiling in the RELAX Trial. <i>JAMA Cardiology</i> , 2017 , 2, 896-901	16.2	19
49	Proteomic Profiling Reveals Adaptive Responses to Surgical Myocardial Ischemia-Reperfusion in Hibernating Arctic Ground Squirrels Compared to Rats. <i>Anesthesiology</i> , 2016 , 124, 1296-310	4.3	19
48	Effects of HIV infection on the metabolic and hormonal status of children with severe acute malnutrition. <i>PLoS ONE</i> , 2014 , 9, e102233	3.7	19
47	Non-targeted metabolomics analysis of cardiac Muscle Ring Finger-1 (MuRF1), MuRF2, and MuRF3 in vivo reveals novel and redundant metabolic changes. <i>Metabolomics</i> , 2015 , 11, 312-322	4.7	18
46	Dietary Patterns among Asian Indians Living in the United States Have Distinct Metabolomic Profiles That Are Associated with Cardiometabolic Risk. <i>Journal of Nutrition</i> , 2018 , 148, 1150-1159	4.1	18
45	Metabomxtr: an R package for mixture-model analysis of non-targeted metabolomics data. <i>Bioinformatics</i> , 2014 , 30, 3287-8	7.2	18

44	Association of Plasma Small-Molecule Intermediate Metabolites With Age and Body Mass Index Across Six Diverse Study Populations. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2016 , 71, 1507-1513	6.4	16
43	Non-Targeted Metabolomics Analysis of Golden Retriever Muscular Dystrophy-Affected Muscles Reveals Alterations in Arginine and Proline Metabolism, and Elevations in Glutamic and Oleic Acid In Vivo. <i>Metabolites</i> , 2017 , 7,	5.6	16
42	Effects of the kinase inhibitor sorafenib on heart, muscle, liver and plasma metabolism in vivo using non-targeted metabolomics analysis. <i>British Journal of Pharmacology</i> , 2017 , 174, 4797-4811	8.6	14
41	Muscle ring finger-3 protects against diabetic cardiomyopathy induced by a high fat diet. <i>BMC Endocrine Disorders</i> , 2015 , 15, 36	3.3	14
40	Cord Blood Metabolomics: Association With Newborn Anthropometrics and C-Peptide Across Ancestries. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2019 , 104, 4459-4472	5.6	13
39	Human amylin proteotoxicity impairs protein biosynthesis, and alters major cellular signaling pathways in the heart, brain and liver of humanized diabetic rat model in vivo. <i>Metabolomics</i> , 2016 , 12, 1	4.7	13
38	"Prediction is very hard, especially about the future": new biomarkers for type 2 diabetes?. <i>Diabetes</i> , 2013 , 62, 1384-5	0.9	13
37	Age-Related Adverse Inflammatory and Metabolic Changes Begin Early in Adulthood. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2019 , 74, 283-289	6.4	12
36	Effect of heparin administration on metabolomic profiles in samples obtained during cardiac catheterization. <i>Circulation: Cardiovascular Genetics</i> , 2011 , 4, 695-700		12
35	Insulin action, type 2 diabetes, and branched-chain amino acids: A two-way street. <i>Molecular Metabolism</i> , 2021 , 52, 101261	8.8	12
34	Improvement in insulin resistance after gastric bypass surgery is correlated with a decline in plasma 2-hydroxybutyric acid. <i>Surgery for Obesity and Related Diseases</i> , 2018 , 14, 1126-1132	3	11
33	Targeted metabolomics finds its mark in diabetes research. <i>Diabetes</i> , 2013 , 62, 349-51	0.9	11
32	Non-targeted urinary metabolomics in pregnancy and associations with fetal growth restriction. <i>Scientific Reports</i> , 2020 , 10, 5307	4.9	10
31	Recommendations for Improving Identification and Quantification in Non-Targeted, GC-MS-Based Metabolomic Profiling of Human Plasma. <i>Metabolites</i> , 2017 , 7,	5.6	10
30	Untargeted metabolomics analysis of ischemia-reperfusion-injured hearts ex vivo from sedentary and exercise-trained rats. <i>Metabolomics</i> , 2018 , 14, 8	4.7	9
29	Non-Targeted Metabolomics Analysis of the Effects of Tyrosine Kinase Inhibitors Sunitinib and Erlotinib on Heart, Muscle, Liver and Serum Metabolism In Vivo. <i>Metabolites</i> , 2017 , 7,	5.6	8
28	Biomarkers Associated with Physical Resilience After Hip Fracture. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2020 , 75, e166-e172	6.4	8
27	Metabolomic and genetic associations with insulin resistance in pregnancy. <i>Diabetologia</i> , 2020 , 63, 1783-1795	6.95	7

26	Cessation of biomechanical stretch model of C2C12 cells models myocyte atrophy and anaplerotic changes in metabolism using non-targeted metabolomics analysis. <i>International Journal of Biochemistry and Cell Biology</i> , 2016 , 79, 80-92	5.6	7
25	Feasibility of Localized Metabolomics in the Study of Pancreatic Islets and Diabetes. <i>Metabolites</i> , 2019 , 9,	5.6	6
24	Combined Inflammation and Metabolism Biomarker Indices of Robust and Impaired Physical Function in Older Adults. <i>Journal of the American Geriatrics Society</i> , 2018 , 66, 1353-1359	5.6	6
23	Metabolomics reveals unexpected responses to oral glucose. <i>Diabetes</i> , 2013 , 62, 2651-3	0.9	6
22	Glycophase glass revisited: protein adsorption and cell growth on glass surfaces bearing immobilized glycerol monosaccharides. <i>Biomaterials</i> , 2002 , 23, 3347-57	15.6	6
21	Physiological mechanisms of sustained fumagillin-induced weight loss. <i>JCI Insight</i> , 2018 , 3,	9.9	6
20	Lung injury-induced skeletal muscle wasting in aged mice is linked to alterations in long chain fatty acid metabolism. <i>Metabolomics</i> , 2016 , 12, 1	4.7	6
19	Tissue-culture surfaces with mixtures of aminated and fluorinated functional groups. Part 1. Synthesis and characterization. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2003 , 14, 325-39	3.5	5
18	Adverse Effects of Fenofibrate in Mice Deficient in the Protein Quality Control Regulator, CHIP. <i>Journal of Cardiovascular Development and Disease</i> , 2018 , 5,	4.2	5
17	Metabolic Changes with Base-Loading in CKD. <i>Clinical Journal of the American Society of Nephrology: CJASN</i> , 2018 , 13, 1244-1246	6.9	5
16	Identification of Metabolic Changes in Ileum, Jejunum, Skeletal Muscle, Liver, and Lung in a Continuous I.V. Pseudomonas aeruginosa Model of Sepsis Using Nontargeted Metabolomics Analysis. <i>American Journal of Pathology</i> , 2019 , 189, 1797-1813	5.8	4
15	Tissue-culture surfaces with mixtures of aminated and fluorinated functional groups. Part 2. Growth and function of transgenic rat insulinoma cells (betaG I/17). <i>Journal of Biomaterials Science, Polymer Edition</i> , 2003 , 14, 341-67	3.5	4
14	Maternal Metabolites Associated With Gestational Diabetes Mellitus and a Postpartum Disorder of Glucose Metabolism. <i>Journal of Clinical Endocrinology and Metabolism</i> , 2021 , 106, 3283-3294	5.6	4
13	A cell-nonautonomous mechanism of yeast chronological aging regulated by caloric restriction and one-carbon metabolism. <i>Journal of Biological Chemistry</i> , 2021 , 296, 100125	5.4	4
12	Effect of Bicarbonate on Net Acid Excretion, Blood Pressure, and Metabolism in Patients With and Without CKD: The Acid Base Compensation in CKD Study. <i>American Journal of Kidney Diseases</i> , 2021 , 78, 38-47	7.4	3
11	Parallel Multi-Omics in High-Risk Subjects for the Identification of Integrated Biomarker Signatures of Type 1 Diabetes. <i>Biomolecules</i> , 2021 , 11,	5.9	2
10	Impact of lifestyle Intervention on branched-chain amino acid catabolism and insulin sensitivity in adolescents with obesity. <i>Endocrinology, Diabetes and Metabolism</i> , 2021 , 4, e00250	2.7	2
9	Urine and Plasma Metabolome of Healthy Adults Consuming the DASH (Dietary Approaches to Stop Hypertension) Diet: A Randomized Pilot Feeding Study. <i>Nutrients</i> , 2021 , 13,	6.7	2

8	Comprehensive Metabolic Analysis for Understanding of Disease 2010 , 97-107		1
7	Human amylin proteotoxicity impairs protein biosynthesis, and alters major cellular signaling pathways in the heart, brain and liver of humanized diabetic rat model in vivo. <i>FASEB Journal</i> , 2016 , 30, lb461	0.9	1
6	Elevated hepatic fatty acid elongase-5 (Elovl5) attenuates fatty liver in high fat diet induced obese mice. <i>FASEB Journal</i> , 2013 , 27, 1010.3	0.9	1
5	Novel plasma biomarkers improve discrimination of metabolic health independent of weight. <i>Scientific Reports</i> , 2020 , 10, 21365	4.9	1
4	A phase 2 trial of the somatostatin analog pasireotide to prevent GI toxicity and acute GVHD in allogeneic hematopoietic stem cell transplant. <i>PLoS ONE</i> , 2021 , 16, e0252995	3.7	1
3	Circulating long chain acylcarnitines and outcomes in diabetic heart failure: an HF-ACTION clinical trial substudy. <i>Cardiovascular Diabetology</i> , 2021 , 20, 161	8.7	1
2	Urine tricarboxylic acid cycle signatures of early-stage diabetic kidney disease.. <i>Metabolomics</i> , 2021 , 18, 5	4.7	1
1	Path-level interpretation of Gaussian graphical models using the pair-path subscore.. <i>BMC Bioinformatics</i> , 2022 , 23, 12	3.6	0