Zoltan Arany

List of Publications by Year
in descending order

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118 papers	10,556 citations	50273 46 h-index	34984 98 g-index
124 all docs	124 docs citations	124 times ranked	14293 citing authors

#	Article	IF	Citations
1	HIF-independent regulation of VEGF and angiogenesis by the transcriptional coactivator PGC-1Î±. Nature, 2008, 451, 1008-1012.	27.8	954
2	Transcriptional coactivator PGC-1Î± controls the energy state and contractile function of cardiac muscle. Cell Metabolism, 2005, 1, 259-271.	16.2	608
3	Cardiac angiogenic imbalance leads to peripartum cardiomyopathy. Nature, 2012, 485, 333-338.	27.8	450
4	Shared Genetic Predisposition in Peripartum and Dilated Cardiomyopathies. New England Journal of Medicine, 2016, 374, 233-241.	27.0	432
5	A branched-chain amino acid metabolite drives vascular fatty acid transport and causes insulin resistance. Nature Medicine, 2016, 22, 421-426.	30.7	421
6	Branched Chain Amino Acids. Annual Review of Physiology, 2019, 81, 139-164.	13.1	362
7	Transverse aortic constriction leads to accelerated heart failure in mice lacking PPAR-Â coactivator 1Â. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10086-10091.	7.1	347
8	The Transcriptional Coactivator PGC-1Î² Drives the Formation of Oxidative Type IIX Fibers in Skeletal Muscle. Cell Metabolism, 2007, 5, 35-46.	16.2	343
9	Impairment of an Endothelial NAD+-H2S Signaling Network Is a Reversible Cause of Vascular Aging. Cell, 2018, 173, 74-89.e20.	28.9	333
10	The transcriptional coactivator PGC-1Î± mediates exercise-induced angiogenesis in skeletal muscle. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21401-21406.	7.1	320
11	Peripartum Cardiomyopathy. Circulation, 2016, 133, 1397-1409.	1.6	304
12	Quantitative Analysis of the Whole-Body Metabolic Fate of Branched-Chain Amino Acids. Cell Metabolism, 2019, 29, 417-429.e4.	16.2	301
13	PGC-1 Coactivators in Cardiac Development and Disease. Circulation Research, 2010, 107, 825-838.	4.5	289
14	Comprehensive quantification of fuel use by the failing and nonfailing human heart. Science, 2020, 370, 364-368.	12.6	276
15	The Relationship Between Pre-Eclampsia and Peripartum Cardiomyopathy. Journal of the American College of Cardiology, 2013, 62, 1715-1723.	2.8	248
16	Peripartum Cardiomyopathy. Journal of the American College of Cardiology, 2020, 75, 207-221.	2.8	235
17	PGC-1 coactivators and skeletal muscle adaptations in health and disease. Current Opinion in Genetics and Development, 2008, 18, 426-434.	3.3	212
18	NADPH production by the oxidative pentose-phosphate pathway supports folate metabolism. Nature Metabolism, 2019, 1, 404-415.	11.9	209

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19	Genetic Variants Associated With Cancer Therapyâ€“Induced Cardiomyopathy. Circulation, 2019, 140, 31-41.	1.6	195
20	Glutamine fuels proliferation but not migration of endothelial cells. EMBO Journal, 2017, 36, 2321-2333.	7.8	166
21	The ADP/ATP translocase drives mitophagy independent of nucleotide exchange. Nature, 2019, 575, 375-379.	27.8	149
22	Endothelial PGC-1Î± Mediates Vascular Dysfunction in Diabetes. Cell Metabolism, 2014, 19, 246-258.	16.2	135
23	Branched Chain Amino Acids in Metabolic Disease. Current Diabetes Reports, 2018, 18, 76.	4.2	126
24	Comparison of Clinical Characteristics and Outcomes of Peripartum Cardiomyopathy Between African American and Nonâ€“African American Women. JAMA Cardiology, 2017, 2, 1256.	6.1	116
25	The many roles of PGC-1Î± in muscle â€” recent developments. Metabolism: Clinical and Experimental, 2014, 63, 441-451.	3.4	115
26	Subclinical Left Ventricular Dysfunction in Preeclamptic Women With Preserved Left Ventricular Ejection Fraction. Circulation: Cardiovascular Imaging, 2012, 5, 734-739.	2.6	100
27	The tumor suppressor FLCN mediates an alternate mTOR pathway to regulate browning of adipose tissue. Genes and Development, 2016, 30, 2551-2564.	5.9	100
28	Maternal cardiac metabolism in pregnancy. Cardiovascular Research, 2014, 101, 545-553.	3.8	98
29	Genomics-First Evaluation of Heart Disease Associated With Titin-Truncating Variants. Circulation, 2019, 140, 42-54.	1.6	97
30	Disconnecting Mitochondrial Content from Respiratory Chain Capacity in PGC-1-Deficient Skeletal Muscle. Cell Reports, 2013, 3, 1449-1456.	6.4	93
31	Mitochondrial calcium exchange links metabolism with the epigenome to control cellular differentiation. Nature Communications, 2019, 10, 4509.	12.8	93
32	Unlocking the Secrets of Mitochondria in the Cardiovascular System. Circulation, 2019, 140, 1205-1216.	1.6	91
33	PGC-1Î± Induces SPP1 to Activate Macrophages and Orchestrate Functional Angiogenesis in Skeletal Muscle. Circulation Research, 2014, 115, 504-517.	4.5	86
34	NADPH production by the oxidative pentose-phosphate pathway supports folate metabolism. Nature Metabolism, 2019, 1, 404-415.	11.9	84
35	The small intestine shields the liver from fructose-induced steatosis. Nature Metabolism, 2020, 2, 586-593.	11.9	81
36	Gene expression-based screening identifies microtubule inhibitors as inducers of PGC-1Î± and oxidative phosphorylation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 4721-4726.	7.1	79

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37	PGC-1Î± Induces Human RPE Oxidative Metabolism and Antioxidant Capacity. , 2016, 57, 1038.		74
38	Endothelial pyruvate kinase M2 maintains vascular integrity. Journal of Clinical Investigation, 2018, 128, 4543-4556.	8.2	71
39	Relaxin-2 and Soluble Flt1 Levels in Peripartum Cardiomyopathy. JACC: Heart Failure, 2016, 4, 380-388.	4.1	68
40	Genetic and Phenotypic Landscape of Peripartum Cardiomyopathy. Circulation, 2021, 143, 1852-1862.	1.6	65
41	Molecular mechanisms of peripartum cardiomyopathy: A vascular/hormonal hypothesis. Trends in Cardiovascular Medicine, 2015, 25, 499-504.	4.9	64
42	Fructose metabolism, cardiometabolic risk, and the epidemic of coronary artery disease. European Heart Journal, 2018, 39, 2497-2505.	2.2	64
43	Inhibition of nonalcoholic fatty liver disease in mice by selective inhibition of mTORC1. Science, 2022, 376, eabf8271.	12.6	61
44	Circulating Antiangiogenic Factors and Myocardial Dysfunction in Hypertensive Disorders of Pregnancy. Hypertension, 2016, 67, 1273-1280.	2.7	57
45	Post-natal induction of PGC-1Î± protects against severe muscle dystrophy independently of utrophin. Skeletal Muscle, 2014, 4, 2.	4.2	51
46	PGC-1Î² regulates angiogenesis in skeletal muscle. American Journal of Physiology - Endocrinology and Metabolism, 2011, 301, E155-E163.	3.5	50
47	Increasing the level of peroxisome proliferator-activated receptor Î³ coactivator-1Î± in podocytes results in collapsing glomerulopathy. JCI Insight, 2017, 2, .	5.0	48
48	APOL1 risk variants in individuals of African genetic ancestry drive endothelial cell defects that exacerbate sepsis. Immunity, 2021, 54, 2632-2649.e6.	14.3	48
49	Local Mitochondrial ATP Production Regulates Endothelial Fatty Acid Uptake and Transport. Cell Metabolism, 2020, 32, 309-319.e7.	16.2	47
50	A randomized placebo-controlled clinical trial for pharmacological activation of BCAA catabolism in patients with type 2 diabetes. Nature Communications, 2022, 13, .	12.8	42
51	Peripartum cardiomyopathy: from genetics to management. European Heart Journal, 2021, 42, 3094-3102.	2.2	39
52	Truncated titin proteins in dilated cardiomyopathy. Science Translational Medicine, 2021, 13, eabd7287.	12.4	39
53	Cardiogenic shock in pregnancy: Analysis from the National Inpatient Sample. Hypertension in Pregnancy, 2017, 36, 117-123.	1.1	38
54	Regulation of maternalâ€“fetal metabolic communication. Cellular and Molecular Life Sciences, 2021, 78, 1455-1486.	5.4	38

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55	Thymic stromal lymphopoietin induces adipose loss through sebum hypersecretion. Science, 2021, 373, .	12.6	36
56	Transcription Factor Tfe3 Directly Regulates Pgcâ€1alpha in Muscle. Journal of Cellular Physiology, 2015, 230, 2330-2336.	4.1	33
57	PDK4 Inhibits Cardiac Pyruvate Oxidation in Late Pregnancy. Circulation Research, 2017, 121, 1370-1378.	4.5	33
58	Use of Impella heart pump for management of women with peripartum cardiogenic shock. Clinical Cardiology, 2019, 42, 974-981.	1.8	31
59	Metabolic Regulation of Angiogenesis in Diabetes and Aging. Physiology, 2017, 32, 290-307.	3.1	30
60	Increased Cancer Prevalence in Peripartum Cardiomyopathy. JACC: CardioOncology, 2019, 1, 196-205.	4.0	30
61	Functional effects of muscle PGC-1alpha in aged animals. Skeletal Muscle, 2020, 10, 14.	4.2	29
62	AKT controls protein synthesis and oxidative metabolism via combined mTORC1 and FOXO1 signalling to govern muscle physiology. Journal of Cachexia, Sarcopenia and Muscle, 2022, 13, 495-514.	7.3	29
63	Endotheliumâ€derived lactate is required for pericyte function and bloodâ€“brain barrier maintenance. EMBO Journal, 2022, 41, e109890.	7.8	27
64	Importance of Early Diagnosis in Peripartum Cardiomyopathy. Hypertension, 2020, 75, 91-97.	2.7	26
65	Cardiac endothelial cells maintain open chromatin and expression of cardiomyocyte myofibrillar genes. ELife, 2020, 9, .	6.0	26
66	Understanding Peripartum Cardiomyopathy. Annual Review of Medicine, 2018, 69, 165-176.	12.2	25
67	Identifying the Critical Gaps in Research on Sex Differences in Metabolism Across the Life Span. Endocrinology, 2018, 159, 9-19.	2.8	25
68	Defects in the Proteome and Metabolome in Human Hypertrophic Cardiomyopathy. Circulation: Heart Failure, 2022, 15, CIRCHEARTFAILURE121009521.	3.9	25
69	Myobolites: muscle-derived metabolites with paracrine and systemic effects. Current Opinion in Pharmacology, 2017, 34, 15-20.	3.5	24
70	Folliculin promotes substrate-selective mTORC1 activity by activating RagC to recruit TFE3. PLoS Biology, 2022, 20, e3001594.	5.6	23
71	Pathophysiology and risk factors of peripartum cardiomyopathy. Nature Reviews Cardiology, 2022, 19, 555-565.	13.7	21
72	Development of dilated cardiomyopathy and impaired calcium homeostasis with cardiac-specific deletion of ESRRÎ². American Journal of Physiology - Heart and Circulatory Physiology, 2017, 312, H662-H671.	3.2	20

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73	In peripartum cardiomyopathy plasminogen activator inhibitor-1 is a potential new biomarker with controversial roles. Cardiovascular Research, 2020, 116, 1875-1886.	3.8	20
74	Heme oxygenase and carbon monoxide protect from muscle dystrophy. Skeletal Muscle, 2016, 6, 41.	4.2	18
75	Neighborhood education status drives racial disparities in clinical outcomes in PPCM. American Heart Journal, 2021, 238, 27-32.	2.7	17
76	Myeloid Folliculin balances mTOR activation to maintain innate immunity homeostasis. JCI Insight, 2019, 5, .	5.0	17
77	Genomic Risk Stratification Predicts All-Cause Mortality After Cardiac Catheterization. Circulation Genomic and Precision Medicine, 2018, 11, e002352.	3.6	16
78	Multimodality assessment of heart failure with preserved ejection fraction skeletal muscle reveals differences in the machinery of energy fuel metabolism. ESC Heart Failure, 2021, 8, 2698-2712.	3.1	16
79	Does Endothelium Buffer Fat?. Circulation Research, 2017, 120, 1219-1221.	4.5	15
80	Glutaminolysis is Essential for Myofibroblast Persistence and In Vivo Targeting Reverses Fibrosis and Cardiac Dysfunction in Heart Failure. Circulation, 2022, 145, 1625-1628.	1.6	15
81	SOX15 Governs Transcription in Human Stratified Epithelia and a Subset of Esophageal Adenocarcinomas. Cellular and Molecular Gastroenterology and Hepatology, 2015, 1, 598-609.e6.	4.5	14
82	Persistent cardiac dysfunction on echocardiography in African American women with severe preeclampsia. Pregnancy Hypertension, 2019, 17, 127-132.	1.4	14
83	Myocardial performance index in hypertensive disorders of pregnancy: The relationship between blood pressures and angiogenic factors. Hypertension in Pregnancy, 2017, 36, 161-167.	1.1	13
84	Whole-body metabolic fate of branched-chain amino acids. Biochemical Journal, 2021, 478, 765-776.	3.7	13
85	Sweet enticements to move. Nature, 2013, 500, 409-410.	27.8	12
86	Mitochondria Cripple without KrÃ¼ppel. Trends in Endocrinology and Metabolism, 2015, 26, 587-589.	7.1	11
87	Transcriptome-wide co-expression analysis identifies LRRC2 as a novel mediator of mitochondrial and cardiac function. PLoS ONE, 2017, 12, e0170458.	2.5	11
88	Laminar Flow on Endothelial Cells Suppresses eNOS O-GlcNAcylation to Promote eNOS Activity. Circulation Research, 2021, 129, 1054-1066.	4.5	11
89	MitoScape: A big-data, machine-learning platform for obtaining mitochondrial DNA from next-generation sequencing data. PLoS Computational Biology, 2021, 17, e1009594.	3.2	11
90	Taking a BAT to the Chains of Diabetes. New England Journal of Medicine, 2019, 381, 2270-2272.	27.0	10

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91	Women with peripartum cardiomyopathy have normal ejection fraction, but abnormal systolic strain, during pregnancy. ESC Heart Failure, 2021, 8, 3382-3386.	3.1	10
92	Animal Models of Cardiovascular Complications of Pregnancy. Circulation Research, 2022, 130, 1763-1779.	4.5	10
93	Bromocriptine for the treatment of peripartum cardiomyopathy: comparison of outcome with a Danish cohort. European Heart Journal, 2018, 39, 3476-3477.	2.2	9
94	Shear stress switches the association of endothelial enhancers from ETV/ETS to KLF transcription factor binding sites. Scientific Reports, 2022, 12, 4795.	3.3	9
95	Comparison of Exogenous Ketone Administration versus Dietary Carbohydrate Restriction on Myocardial Glucose Suppression: A Crossover Clinical Trial. Journal of Nuclear Medicine, 2021, , jnumed.121.262734.	5.0	8
96	ZFP36L2 suppresses mTORc1 through a P53-dependent pathway to prevent peripartum cardiomyopathy in mice. Journal of Clinical Investigation, 2022, 132, .	8.2	8
97	Peripartum cardiomyopathy: An epidemiologic study of early and late presentations. Pregnancy Hypertension, 2018, 13, 273-278.	1.4	7
98	To Breastfeed or Not to Breastfeed With Peripartum Cardiomyopathy. JACC Basic To Translational Science, 2019, 4, 301-303.	4.1	7
99	Fat, obesity, and the endothelium. Current Opinion in Physiology, 2019, 12, 44-50.	1.8	7
100	Case 22-2014. New England Journal of Medicine, 2014, 371, 261-269.	27.0	6
101	Noncanonical WNT Activation in Human Right Ventricular Heart Failure. Frontiers in Cardiovascular Medicine, 2020, 7, 582407.	2.4	6
102	Adipose tissue browning: mTOR branches out. Cell Cycle, 2017, 16, 493-494.	2.6	5
103	Effect of Interleukin-15 Receptor Alpha Ablation on the Metabolic Responses to Moderate Exercise Simulated by in vivo Isometric Muscle Contractions. Frontiers in Physiology, 2019, 10, 1439.	2.8	5
104	NT-proBNP and predictors of event free survival and left ventricular systolic function recovery in peripartum cardiomyopathy. International Journal of Cardiology, 2022, 357, 48-54.	1.7	5
105	Comprehensive nutrient consumption estimation and metabolic profiling during ketogenic diet and relationship with myocardial glucose uptake on FDG-PET. European Heart Journal Cardiovascular Imaging, 2022, 23, 1690-1697.	1.2	4
106	It Is Time to Offer Genetic Testing to Women With Peripartum Cardiomyopathy. Circulation, 2022, 146, 4-5.	1.6	4
107	Could shear stress mimetics delay complications in COVID-19?. Trends in Cardiovascular Medicine, 2021, 32, 71-71.	4.9	3
108	High-Throughput Real-Time PCR for Detection of Gene-Expression Levels. Methods in Molecular Biology, 2009, 486, 167-175.	0.9	3

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109	Soluble Flt1 levels are associated with cardiac dysfunction in Black women with and without severe preeclampsia. Hypertension in Pregnancy, 2021, 40, 44-49.	1.1	3
110	Insulin-stimulated adipocytes secrete lactate to promote endothelial fatty acid uptake and transport. Journal of Cell Science, 2022, 135, .	2.0	3
111	Does Glycine cataBOLAsm Drive Pulmonary Hypertension?. Circulation, 2019, 139, 2256-2259.	1.6	2
112	Differential Outcomes for African-American Women with Cardiovascular Complications of Pregnancy. Current Treatment Options in Cardiovascular Medicine, 2020, 22, 1.	0.9	2
113	Endothelial Lipid Metabolism. Cold Spring Harbor Perspectives in Medicine, 2022, 12, a041162.	6.2	2
114	Response by Arany and Elkayam to Letter Regarding Article, â€œPeripartum Cardiomyopathyâ€. Circulation, 2016, 134, e83-4.	1.6	1
115	Echoes of Preeclampsia. Hypertension, 2016, 67, 690-692.	2.7	1
116	Direct anabolic metabolism of three-carbon propionate to a six-carbon metabolite occurs inÂvivo across tissues and species. Journal of Lipid Research, 2022, 63, 100224.	4.2	1
117	Editorial Commentary: Guidance through the â€œToolshedâ€•for endovascular revascularization of the lower extremity. Trends in Cardiovascular Medicine, 2016, 26, 513-514.	4.9	0
118	PGCâ€1 isoforms modulate the antioxidant response of photoreceptors to photoâ€oxidative stress. FASEB Journal, 2013, 27, 1086.10.	0.5	0