Peppi Koivunen

List of Publications by Year
in descending order

82 papers	8,365 citations	94433 37 h-index	71685 76 g-index
87 all docs	87 docs citations	87 times ranked	14885 citing authors

#	Article	IF	Citations
1	Activation of the hypoxia response pathway protects against age-induced cardiac hypertrophy. Journal of Molecular and Cellular Cardiology, 2022, 164, 148-155.	1.9	5
2	Higher hemoglobin levels are an independent risk factor for gestational diabetes. Scientific Reports, 2022, 12, 1686.	3.3	10
3	Inactivation of mouse transmembrane prolyl 4-hydroxylase increases blood brain barrier permeability and ischemia-induced cerebral neuroinflammation. Journal of Biological Chemistry, 2022, 298, 101721.	3.4	2
4	Hypoxia ameliorates maternal dietâ€induced insulin resistance during pregnancy while having a detrimental effect on the placenta. Physiological Reports, 2022, 10, e15302.	1.7	3
5	Contribution of HIF-P4H isoenzyme inhibition to metabolism indicates major beneficial effects being conveyed by HIF-P4H-2 antagonism. Journal of Biological Chemistry, 2022, 298, 102222.	3.4	2
6	Expression and Roles of Individual HIF Prolyl 4-Hydroxylase Isoenzymes in the Regulation of the Hypoxia Response Pathway along the Murine Gastrointestinal Epithelium. International Journal of Molecular Sciences, 2021, 22, 4038.	4.1	1
7	Genetic Ablation of Transmembrane Prolyl 4-Hydroxylase Reduces Atherosclerotic Plaques in Mice. Arteriosclerosis, Thrombosis, and Vascular Biology, 2021, 41, 2128-2140.	2.4	1
8	Systematic evaluation of the association between hemoglobin levels and metabolic profile implicates beneficial effects of hypoxia. Science Advances, 2021, 7, .	10.3	19
9	Structure of transmembrane prolyl 4-hydroxylase reveals unique organization of EF and dioxygenase domains. Journal of Biological Chemistry, 2021, 296, 100197.	3.4	7
10	Transmembrane Prolyl 4-Hydroxylase is a Novel Regulator of Calcium Signaling in Astrocytes. ENeuro, 2021, 8, ENEURO.0253-20.2020.	1.9	10
11	Higher hemoglobin levels are an independent risk factor for adverse metabolism and higher mortality in a 20-year follow-up. Scientific Reports, 2021, 11, 19936.	3.3	11
12	2-Oxoglutarate-dependent dioxygenases in cancer. Nature Reviews Cancer, 2020, 20, 710-726.	28.4	119
13	Prolyl hydroxylase domain 2 reduction enhances skeletal muscle tissue regeneration after soft tissue trauma in mice. PLoS ONE, 2020, 15, e0233261.	2.5	10
14	Systemic longâ€term inactivation of hypoxiaâ€inducible factor prolyl 4â€hydroxylase 2 ameliorates agingâ€induced changes in mice without affecting their life span. FASEB Journal, 2020, 34, 5590-5609.	0.5	9
15	PHD1 controls muscle mTORC1 in a hydroxylation-independent manner by stabilizing leucyl tRNA synthetase. Nature Communications, 2020, 11, 174.	12.8	1,868
16	HIF-P4H-2 inhibition enhances intestinal fructose metabolism and induces thermogenesis protecting against NAFLD. Journal of Molecular Medicine, 2020, 98, 719-731.	3.9	16
17	The Pro-Oncogenic Adaptor CIN85 Acts as an Inhibitory Binding Partner of Hypoxia-Inducible Factor Prolyl Hydroxylase 2. Cancer Research, 2019, 79, 4042-4056.	0.9	8
18	Maternal hemoglobin associates with preterm delivery and small for gestational age in two Finnish birth cohorts. European Journal of Obstetrics, Gynecology and Reproductive Biology, 2019, 238, 44-48.	1.1	16

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19	Null mutation in P4h-tm leads to decreased fear and anxiety and increased social behavior in mice. Neuropharmacology, 2019, 153, 63-72.	4.1	13
20	Histone demethylase KDM6A directly senses oxygen to control chromatin and cell fate. Science, 2019, 363, 1217-1222.	12.6	281
21	The Circadian Clock Protein CRY1 Is a Negative Regulator of HIF-1Î±. IScience, 2019, 13, 284-304.	4.1	49
22	Biallelic loss-of-function P4HTM gene variants cause hypotonia, hypoventilation, intellectual disability, dysautonomia, epilepsy, and eye abnormalities (HIDEA syndrome). Genetics in Medicine, 2019, 21, 2355-2363.	2.4	19
23	Systemic inactivation of hypoxia-inducible factor prolyl 4-hydroxylase 2 in mice protects from alcohol-induced fatty liver disease. Redox Biology, 2019, 22, 101145.	9.0	22
24	Kinetic Analysis of HIF Prolyl Hydroxylases. Methods in Molecular Biology, 2018, 1742, 15-25.	0.9	5
25	USP28 Deficiency Promotes Breast and Liver Carcinogenesis as well as Tumor Angiogenesis in a HIF-independent Manner. Molecular Cancer Research, 2018, 16, 1000-1012.	3.4	23
26	The TET enzymes. Cellular and Molecular Life Sciences, 2018, 75, 1339-1348.	5.4	56
27	Gestational Diabetes Prevalence at Moderate and High Altitude. High Altitude Medicine and Biology, 2018, 19, 367-372.	0.9	3
28	Hypoxia-Inducible Factor Prolyl 4-Hydroxylases and Metabolism. Trends in Molecular Medicine, 2018, 24, 1021-1035.	6.7	34
29	Hypoxia causes reductions in birth weight by altering maternal glucose and lipid metabolism. Scientific Reports, 2018, 8, 13583.	3.3	19
30	Cancer-associated 2-oxoglutarate analogues modify histone methylation by inhibiting histone lysine demethylases. Journal of Molecular Biology, 2018, 430, 3081-3092.	4.2	43
31	Structural basis of homo- and heterotrimerization of collagen I. Nature Communications, 2017, 8, 14671.	12.8	79
32	Exploring effects of remote ischemic preconditioning in a pig model of hypothermic circulatory arrest. Scandinavian Cardiovascular Journal, 2017, 51, 233-241.	1.2	9
33	Notch Downregulation and Extramedullary Erythrocytosis in Hypoxia-Inducible Factor Prolyl 4-Hydroxylase 2-Deficient Mice. Molecular and Cellular Biology, 2017, 37, .	2.3	10
34	Update on hypoxia-inducible factors and hydroxylases in oxygen regulatory pathways: from physiology to therapeutics. Hypoxia (Auckland, N Z), 2017, Volume 5, 11-20.	1.9	26
35	The 2-oxoglutarate analog 3-oxoglutarate decreases normoxic hypoxia-inducible factor-1α in cancer cells, induces cell death, and reduces tumor xenograft growth. Hypoxia (Auckland, N Z), 2016, 4, 15.	1.9	7
36	Paracrine Induction of HIF by Glutamate in Breast Cancer: EglN1 Senses Cysteine. Cell, 2016, 166, 126-139.	28.9	187

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37	Lack of P4H-TM in mice results in age-related retinal and renal alterations. Human Molecular Genetics, 2016, 25, 3810-3823.	2.9	17
38	CD146 + cells are essential for kidney vasculature development. Kidney International, 2016, 90, 311-324.	5.2	47
39	Hypoxia-inducible factor prolyl 4-hydroxylase inhibition in cardiometabolic diseases. Pharmacological Research, 2016, 114, 265-273.	7.1	26
40	HIF-P4H-2 deficiency protects against skeletal muscle ischemia-reperfusion injury. Journal of Molecular Medicine, 2016, 94, 301-310.	3.9	14
41	Hypoxia-Inducible Factor Prolyl 4-Hydroxylase-2 Inhibition Protects Against Development of Atherosclerosis. Arteriosclerosis, Thrombosis, and Vascular Biology, 2016, 36, 608-617.	2.4	71
42	Fumarate and Succinate Regulate Expression of Hypoxia-inducible Genes via TET Enzymes. Journal of Biological Chemistry, 2016, 291, 4256-4265.	3.4	234
43	Sodium valproate induces mitochondrial respiration dysfunction in HepG2 in vitro cell model. Toxicology, 2015, 331, 47-56.	4.2	71
44	Ferritin-Mediated Iron Sequestration Stabilizes Hypoxia-Inducible Factor-1Î± upon LPS Activation in the Presence of Ample Oxygen. Cell Reports, 2015, 13, 2048-2055.	6.4	106
45	Elevated protein carbonyl and HIFâ€1Î± levels in eyes with proliferative diabetic retinopathy. Acta Ophthalmologica, 2014, 92, 323-327.	1.1	40
46	HIF Prolyl 4-Hydroxylase-2 Inhibition Improves Glucose and Lipid Metabolism and Protects Against Obesity and Metabolic Dysfunction. Diabetes, 2014, 63, 3324-3333.	0.6	95
47	Clinical characterization, genetic mapping and whole-genome sequence analysis of a novel autosomal recessive intellectual disability syndrome. European Journal of Medical Genetics, 2014, 57, 543-551.	1.3	19
48	Prolyl hydroxylation by EglN2 destabilizes FOXO3a by blocking its interaction with the USP9x deubiquitinase. Genes and Development, 2014, 28, 1429-1444.	5.9	111
49	A genetic mechanism for Tibetan high-altitude adaptation. Nature Genetics, 2014, 46, 951-956.	21.4	322
50	Combining targeted drugs to overcome and prevent resistance of solid cancers with some stem-like cell features. Oncotarget, 2014, 5, 9295-9307.	1.8	12
51	(R)-2-Hydroxyglutarate Is Sufficient to Promote Leukemogenesis and Its Effects Are Reversible. Science, 2013, 339, 1621-1625.	12.6	624
52	HIF-1Î± is upregulated in human mesenchymal stem cells. Stem Cells, 2013, 31, 1902-1909.	3.2	115
53	Hypoxia-inducible factor prolyl 4-hydroxylases: common and specific roles. Biological Chemistry, 2013, 394, 435-448.	2.5	68
54	Activation of Hypoxia Response in Endothelial Cells Contributes to Ischemic Cardioprotection. Molecular and Cellular Biology, 2013, 33, 3321-3329.	2.3	47

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55	Transmembrane prolyl 4-hydroxylase is a fourth prolyl 4-hydroxylase regulating EPO production and erythropoiesis. Blood, 2012, 120, 3336-3344.	1.4	55
56	Transformation by the (R)-enantiomer of 2-hydroxyglutarate linked to EGLN activation. Nature, 2012, 483, 484-488.	27.8	630
57	Expressions of individual PHDs associate with good prognostic factors and increased proliferation in breast cancer patients. Breast Cancer Research and Treatment, 2012, 133, 179-188.	2.5	37
58	A Novel EGLN1/PHD2 High-Frequency Variant in Tibetans Protects Against Hypoxia-Induced Polycythemia.. Blood, 2012, 120, 2079-2079.	1.4	0
59	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on Î±-Ketoglutarate-Dependent Dioxygenases. Blood, 2011, 118, LBA-4-LBA-4.	1.4	1
60	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on Î±-Ketoglutarate-Dependent Dioxygenases. Blood, 2011, 118, LBA-4-LBA-4.	1.4	0
61	Deficiency of a Transmembrane Prolyl 4-Hydroxylase in the Zebrafish Leads to Basement Membrane Defects and Compromised Kidney Function. Journal of Biological Chemistry, 2010, 285, 42023-42032.	3.4	36
62	Hearts of Hypoxia-inducible Factor Prolyl 4-Hydroxylase-2 Hypomorphic Mice Show Protection against Acute Ischemia-Reperfusion Injury. Journal of Biological Chemistry, 2010, 285, 13646-13657.	3.4	100
63	Differences in hydroxylation and binding of Notch and HIF-1Î± demonstrate substrate selectivity for factor inhibiting HIF-1 (FIH-1). International Journal of Biochemistry and Cell Biology, 2009, 41, 1563-1571.	2.8	55
64	Inhibition of Hypoxia-inducible Factor (HIF) Hydroxylases by Citric Acid Cycle Intermediates. Journal of Biological Chemistry, 2007, 282, 4524-4532.	3.4	441
65	An Endoplasmic Reticulum Transmembrane Prolyl 4-Hydroxylase Is Induced by Hypoxia and Acts on Hypoxia-inducible Factor Î±. Journal of Biological Chemistry, 2007, 282, 30544-30552.	3.4	124
66	The Length of Peptide Substrates Has a Marked Effect on Hydroxylation by the Hypoxia-inducible Factor Prolyl 4-Hydroxylases. Journal of Biological Chemistry, 2006, 281, 28712-28720.	3.4	111
67	Characterization of a Second Arabidopsis thaliana Prolyl 4-Hydroxylase with Distinct Substrate Specificity. Journal of Biological Chemistry, 2005, 280, 1142-1148.	3.4	89
68	Effect of desferrioxamine and metals on the hydroxylases in the oxygen sensing pathway. FASEB Journal, 2005, 19, 1308-1310.	0.5	192
69	Three Binding Sites in Protein-disulfide Isomerase Cooperate in Collagen Prolyl 4-Hydroxylase Tetramer Assembly. Journal of Biological Chemistry, 2005, 280, 5227-5235.	3.4	51
70	Many Amino Acid Substitutions in a Hypoxia-inducible Transcription Factor (HIF)-1Î±-like Peptide Cause Only Minor Changes in Its Hydroxylation by the HIF Prolyl 4-Hydroxylases. Journal of Biological Chemistry, 2004, 279, 55051-55059.	3.4	37
71	Collagen Prolyl 4-Hydroxylase Tetramers and Dimers Show Identical Decreases in K Values for Peptide Substrates with Increasing Chain Length. Journal of Biological Chemistry, 2004, 279, 18656-18661.	3.4	14
72	The Primary Substrate Binding Site in the bâ€² Domain of ERp57 Is Adapted for Endoplasmic Reticulum Lectin Association. Journal of Biological Chemistry, 2004, 279, 18861-18869.	3.4	88

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73	Identification and Characterization of Structural Domains of Human ERp57. Journal of Biological Chemistry, 2004, 279, 13607-13615.	3.4	47
74	Catalytic Properties of the Asparaginyl Hydroxylase (FIH) in the Oxygen Sensing Pathway Are Distinct from Those of Its Prolyl 4-Hydroxylases. Journal of Biological Chemistry, 2004, 279, 9899-9904.	3.4	361
75	Influence of the Oxidoreductase ERp57 on the Folding of an Antibody Fab Fragment. Journal of Molecular Biology, 2004, 341, 1077-1084.	4.2	11
76	Characterization of the Human Prolyl 4-Hydroxylases That Modify the Hypoxia-inducible Factor. Journal of Biological Chemistry, 2003, 278, 30772-30780.	3.4	690
77	Assignment of 1H, 13C and 15N resonances of the a' domain of ERp57. Journal of Biomolecular NMR, 2001, 20, 385-386.	2.8	8
78	Domains bâ€² and aâ€² of Protein Disulfide Isomerase Fulfill the Minimum Requirement for Function as a Subunit of Prolyl 4-Hydroxylase. Journal of Biological Chemistry, 2001, 276, 11287-11293.	3.4	46
79	Assignment of 1H, 13C and 15N resonances of the a' domain of protein disulfide isomerase. Journal of Biomolecular NMR, 1999, 14, 195-196.	2.8	19
80	ERp60 does not substitute for protein disulphide isomerase as the Î²-subunit of prolyl 4-hydroxylase. Biochemical Journal, 1996, 316, 599-605.	3.7	42
81	Baculovirus expression of two protein disulphide isomerase isoforms from Caenorhabditis elegans and characterization of prolyl 4-hydroxylases containing one of these polypeptides as their Î² subunit. Biochemical Journal, 1996, 317, 721-729.	3.7	35
82	The Circadian Clock Protein CRY1 Is a Negative Regulator of HIF-11. SSRN Electronic Journal, 0, , .	0.4	0