

Peppi Koivunen

List of Publications by Year in descending order

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82
papers

8,365
citations

94433

37
h-index

71685

76
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87
docs citations

87
times ranked

14885
citing authors

#	ARTICLE	IF	CITATIONS
1	PHD1 controls muscle mTORC1 in a hydroxylation-independent manner by stabilizing leucyl tRNA synthetase. <i>Nature Communications</i> , 2020, 11, 174.	12.8	1,868
2	Characterization of the Human Prolyl 4-Hydroxylases That Modify the Hypoxia-inducible Factor. <i>Journal of Biological Chemistry</i> , 2003, 278, 30772-30780.	3.4	690
3	Transformation by the (R)-enantiomer of 2-hydroxyglutarate linked to EGLN activation. <i>Nature</i> , 2012, 483, 484-488.	27.8	630
4	(R)-2-Hydroxyglutarate Is Sufficient to Promote Leukemogenesis and Its Effects Are Reversible. <i>Science</i> , 2013, 339, 1621-1625.	12.6	624
5	Inhibition of Hypoxia-inducible Factor (HIF) Hydroxylases by Citric Acid Cycle Intermediates. <i>Journal of Biological Chemistry</i> , 2007, 282, 4524-4532.	3.4	441
6	Catalytic Properties of the Asparaginyl Hydroxylase (FIH) in the Oxygen Sensing Pathway Are Distinct from Those of Its Prolyl 4-Hydroxylases. <i>Journal of Biological Chemistry</i> , 2004, 279, 9899-9904.	3.4	361
7	A genetic mechanism for Tibetan high-altitude adaptation. <i>Nature Genetics</i> , 2014, 46, 951-956.	21.4	322
8	Histone demethylase KDM6A directly senses oxygen to control chromatin and cell fate. <i>Science</i> , 2019, 363, 1217-1222.	12.6	281
9	Fumarate and Succinate Regulate Expression of Hypoxia-inducible Genes via TET Enzymes. <i>Journal of Biological Chemistry</i> , 2016, 291, 4256-4265.	3.4	234
10	Effect of desferrioxamine and metals on the hydroxylases in the oxygen sensing pathway. <i>FASEB Journal</i> , 2005, 19, 1308-1310.	0.5	192
11	Paracrine Induction of HIF by Glutamate in Breast Cancer: EglN1 Senses Cysteine. <i>Cell</i> , 2016, 166, 126-139.	28.9	187
12	An Endoplasmic Reticulum Transmembrane Prolyl 4-Hydroxylase Is Induced by Hypoxia and Acts on Hypoxia-inducible Factor 1 α . <i>Journal of Biological Chemistry</i> , 2007, 282, 30544-30552.	3.4	124
13	2-Oxoglutarate-dependent dioxygenases in cancer. <i>Nature Reviews Cancer</i> , 2020, 20, 710-726.	28.4	119
14	HIF-1 α is upregulated in human mesenchymal stem cells. <i>Stem Cells</i> , 2013, 31, 1902-1909.	3.2	115
15	The Length of Peptide Substrates Has a Marked Effect on Hydroxylation by the Hypoxia-inducible Factor Prolyl 4-Hydroxylases. <i>Journal of Biological Chemistry</i> , 2006, 281, 28712-28720.	3.4	111
16	Prolyl hydroxylation by EglN2 destabilizes FOXO3a by blocking its interaction with the USP9x deubiquitinase. <i>Genes and Development</i> , 2014, 28, 1429-1444.	5.9	111
17	Ferritin-Mediated Iron Sequestration Stabilizes Hypoxia-Inducible Factor-1 α upon LPS Activation in the Presence of Ample Oxygen. <i>Cell Reports</i> , 2015, 13, 2048-2055.	6.4	106
18	Hearts of Hypoxia-inducible Factor Prolyl 4-Hydroxylase-2 Hypomorphic Mice Show Protection against Acute Ischemia-Reperfusion Injury. <i>Journal of Biological Chemistry</i> , 2010, 285, 13646-13657.	3.4	100

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19	HIF Prolyl 4-Hydroxylase-2 Inhibition Improves Glucose and Lipid Metabolism and Protects Against Obesity and Metabolic Dysfunction. <i>Diabetes</i> , 2014, 63, 3324-3333.	0.6	95
20	Characterization of a Second <i>Arabidopsis thaliana</i> Prolyl 4-Hydroxylase with Distinct Substrate Specificity. <i>Journal of Biological Chemistry</i> , 2005, 280, 1142-1148.	3.4	89
21	The Primary Substrate Binding Site in the β^2 Domain of ERp57 Is Adapted for Endoplasmic Reticulum Lectin Association. <i>Journal of Biological Chemistry</i> , 2004, 279, 18861-18869.	3.4	88
22	Structural basis of homo- and heterotrimerization of collagen I. <i>Nature Communications</i> , 2017, 8, 14671.	12.8	79
23	Sodium valproate induces mitochondrial respiration dysfunction in HepG2 in vitro cell model. <i>Toxicology</i> , 2015, 331, 47-56.	4.2	71
24	Hypoxia-Inducible Factor Prolyl 4-Hydroxylase-2 Inhibition Protects Against Development of Atherosclerosis. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2016, 36, 608-617.	2.4	71
25	Hypoxia-inducible factor prolyl 4-hydroxylases: common and specific roles. <i>Biological Chemistry</i> , 2013, 394, 435-448.	2.5	68
26	The TET enzymes. <i>Cellular and Molecular Life Sciences</i> , 2018, 75, 1339-1348.	5.4	56
27	Differences in hydroxylation and binding of Notch and HIF-1 α demonstrate substrate selectivity for factor inhibiting HIF-1 (FIH-1). <i>International Journal of Biochemistry and Cell Biology</i> , 2009, 41, 1563-1571.	2.8	55
28	Transmembrane prolyl 4-hydroxylase is a fourth prolyl 4-hydroxylase regulating EPO production and erythropoiesis. <i>Blood</i> , 2012, 120, 3336-3344.	1.4	55
29	Three Binding Sites in Protein-disulfide Isomerase Cooperate in Collagen Prolyl 4-Hydroxylase Tetramer Assembly. <i>Journal of Biological Chemistry</i> , 2005, 280, 5227-5235.	3.4	51
30	The Circadian Clock Protein CRY1 Is a Negative Regulator of HIF-1 α . <i>IScience</i> , 2019, 13, 284-304.	4.1	49
31	Identification and Characterization of Structural Domains of Human ERp57. <i>Journal of Biological Chemistry</i> , 2004, 279, 13607-13615.	3.4	47
32	Activation of Hypoxia Response in Endothelial Cells Contributes to Ischemic Cardioprotection. <i>Molecular and Cellular Biology</i> , 2013, 33, 3321-3329.	2.3	47
33	CD146 + cells are essential for kidney vasculature development. <i>Kidney International</i> , 2016, 90, 311-324.	5.2	47
34	Domains β^2 and α^2 of Protein Disulfide Isomerase Fulfill the Minimum Requirement for Function as a Subunit of Prolyl 4-Hydroxylase. <i>Journal of Biological Chemistry</i> , 2001, 276, 11287-11293.	3.4	46
35	Cancer-associated 2-oxoglutarate analogues modify histone methylation by inhibiting histone lysine demethylases. <i>Journal of Molecular Biology</i> , 2018, 430, 3081-3092.	4.2	43
36	ERp60 does not substitute for protein disulphide isomerase as the β^2 -subunit of prolyl 4-hydroxylase. <i>Biochemical Journal</i> , 1996, 316, 599-605.	3.7	42

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37	Elevated protein carbonyl and HIF-1 α levels in eyes with proliferative diabetic retinopathy. <i>Acta Ophthalmologica</i> , 2014, 92, 323-327.	1.1	40
38	Many Amino Acid Substitutions in a Hypoxia-inducible Transcription Factor (HIF)-1 α -like Peptide Cause Only Minor Changes in Its Hydroxylation by the HIF Prolyl 4-Hydroxylases. <i>Journal of Biological Chemistry</i> , 2004, 279, 55051-55059.	3.4	37
39	Expressions of individual PHDs associate with good prognostic factors and increased proliferation in breast cancer patients. <i>Breast Cancer Research and Treatment</i> , 2012, 133, 179-188.	2.5	37
40	Deficiency of a Transmembrane Prolyl 4-Hydroxylase in the Zebrafish Leads to Basement Membrane Defects and Compromised Kidney Function. <i>Journal of Biological Chemistry</i> , 2010, 285, 42023-42032.	3.4	36
41	Baculovirus expression of two protein disulphide isomerase isoforms from <i>Caenorhabditis elegans</i> and characterization of prolyl 4-hydroxylases containing one of these polypeptides as their β^2 subunit. <i>Biochemical Journal</i> , 1996, 317, 721-729.	3.7	35
42	Hypoxia-Inducible Factor Prolyl 4-Hydroxylases and Metabolism. <i>Trends in Molecular Medicine</i> , 2018, 24, 1021-1035.	6.7	34
43	Hypoxia-inducible factor prolyl 4-hydroxylase inhibition in cardiometabolic diseases. <i>Pharmacological Research</i> , 2016, 114, 265-273.	7.1	26
44	Update on hypoxia-inducible factors and hydroxylases in oxygen regulatory pathways: from physiology to therapeutics. <i>Hypoxia (Auckland, N Z)</i> , 2017, Volume 5, 11-20.	1.9	26
45	USP28 Deficiency Promotes Breast and Liver Carcinogenesis as well as Tumor Angiogenesis in a HIF-independent Manner. <i>Molecular Cancer Research</i> , 2018, 16, 1000-1012.	3.4	23
46	Systemic inactivation of hypoxia-inducible factor prolyl 4-hydroxylase 2 in mice protects from alcohol-induced fatty liver disease. <i>Redox Biology</i> , 2019, 22, 101145.	9.0	22
47	Assignment of 1H, 13C and 15N resonances of the α' domain of protein disulfide isomerase. <i>Journal of Biomolecular NMR</i> , 1999, 14, 195-196.	2.8	19
48	Clinical characterization, genetic mapping and whole-genome sequence analysis of a novel autosomal recessive intellectual disability syndrome. <i>European Journal of Medical Genetics</i> , 2014, 57, 543-551.	1.3	19
49	Hypoxia causes reductions in birth weight by altering maternal glucose and lipid metabolism. <i>Scientific Reports</i> , 2018, 8, 13583.	3.3	19
50	Biallelic loss-of-function P4H-TM gene variants cause hypotonia, hypoventilation, intellectual disability, dysautonomia, epilepsy, and eye abnormalities (HIDEA syndrome). <i>Genetics in Medicine</i> , 2019, 21, 2355-2363.	2.4	19
51	Systematic evaluation of the association between hemoglobin levels and metabolic profile implicates beneficial effects of hypoxia. <i>Science Advances</i> , 2021, 7, .	10.3	19
52	Lack of P4H-TM in mice results in age-related retinal and renal alterations. <i>Human Molecular Genetics</i> , 2016, 25, 3810-3823.	2.9	17
53	Maternal hemoglobin associates with preterm delivery and small for gestational age in two Finnish birth cohorts. <i>European Journal of Obstetrics, Gynecology and Reproductive Biology</i> , 2019, 238, 44-48.	1.1	16
54	HIF-P4H-2 inhibition enhances intestinal fructose metabolism and induces thermogenesis protecting against NAFLD. <i>Journal of Molecular Medicine</i> , 2020, 98, 719-731.	3.9	16

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55	Collagen Prolyl 4-Hydroxylase Tetramers and Dimers Show Identical Decreases in K Values for Peptide Substrates with Increasing Chain Length. <i>Journal of Biological Chemistry</i> , 2004, 279, 18656-18661.	3.4	14
56	HIF-P4H-2 deficiency protects against skeletal muscle ischemia-reperfusion injury. <i>Journal of Molecular Medicine</i> , 2016, 94, 301-310.	3.9	14
57	Null mutation in P4h-tm leads to decreased fear and anxiety and increased social behavior in mice. <i>Neuropharmacology</i> , 2019, 153, 63-72.	4.1	13
58	Combining targeted drugs to overcome and prevent resistance of solid cancers with some stem-like cell features. <i>Oncotarget</i> , 2014, 5, 9295-9307.	1.8	12
59	Influence of the Oxidoreductase ERp57 on the Folding of an Antibody Fab Fragment. <i>Journal of Molecular Biology</i> , 2004, 341, 1077-1084.	4.2	11
60	Higher hemoglobin levels are an independent risk factor for adverse metabolism and higher mortality in a 20-year follow-up. <i>Scientific Reports</i> , 2021, 11, 19936.	3.3	11
61	Notch Downregulation and Extramedullary Erythrocytosis in Hypoxia-Inducible Factor Prolyl 4-Hydroxylase 2-Deficient Mice. <i>Molecular and Cellular Biology</i> , 2017, 37, .	2.3	10
62	Prolyl hydroxylase domain 2 reduction enhances skeletal muscle tissue regeneration after soft tissue trauma in mice. <i>PLoS ONE</i> , 2020, 15, e0233261.	2.5	10
63	Transmembrane Prolyl 4-Hydroxylase is a Novel Regulator of Calcium Signaling in Astrocytes. <i>ENeuro</i> , 2021, 8, ENEURO.0253-20.2020.	1.9	10
64	Higher hemoglobin levels are an independent risk factor for gestational diabetes. <i>Scientific Reports</i> , 2022, 12, 1686.	3.3	10
65	Exploring effects of remote ischemic preconditioning in a pig model of hypothermic circulatory arrest. <i>Scandinavian Cardiovascular Journal</i> , 2017, 51, 233-241.	1.2	9
66	Systemic long-term inactivation of hypoxia-inducible factor prolyl 4-hydroxylase 2 ameliorates aging-induced changes in mice without affecting their life span. <i>FASEB Journal</i> , 2020, 34, 5590-5609.	0.5	9
67	Assignment of 1H, 13C and 15N resonances of the α' domain of ERp57. <i>Journal of Biomolecular NMR</i> , 2001, 20, 385-386.	2.8	8
68	The Pro-Oncogenic Adaptor CIN85 Acts as an Inhibitory Binding Partner of Hypoxia-Inducible Factor Prolyl Hydroxylase 2. <i>Cancer Research</i> , 2019, 79, 4042-4056.	0.9	8
69	The 2-oxoglutarate analog 3-oxoglutarate decreases normoxic hypoxia-inducible factor-1 α ; in cancer cells, induces cell death, and reduces tumor xenograft growth. <i>Hypoxia (Auckland, N Z)</i> , 2016, 4, 15.	1.9	7
70	Structure of transmembrane prolyl 4-hydroxylase reveals unique organization of EF and dioxygenase domains. <i>Journal of Biological Chemistry</i> , 2021, 296, 100197.	3.4	7
71	Kinetic Analysis of HIF Prolyl Hydroxylases. <i>Methods in Molecular Biology</i> , 2018, 1742, 15-25.	0.9	5
72	Activation of the hypoxia response pathway protects against age-induced cardiac hypertrophy. <i>Journal of Molecular and Cellular Cardiology</i> , 2022, 164, 148-155.	1.9	5

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73	Gestational Diabetes Prevalence at Moderate and High Altitude. <i>High Altitude Medicine and Biology</i> , 2018, 19, 367-372.	0.9	3
74	Hypoxia ameliorates maternal diet-induced insulin resistance during pregnancy while having a detrimental effect on the placenta. <i>Physiological Reports</i> , 2022, 10, e15302.	1.7	3
75	Inactivation of mouse transmembrane prolyl 4-hydroxylase increases blood brain barrier permeability and ischemia-induced cerebral neuroinflammation. <i>Journal of Biological Chemistry</i> , 2022, 298, 101721.	3.4	2
76	Contribution of HIF-P4H isoenzyme inhibition to metabolism indicates major beneficial effects being conveyed by HIF-P4H-2 antagonism. <i>Journal of Biological Chemistry</i> , 2022, 298, 102222.	3.4	2
77	Expression and Roles of Individual HIF Prolyl 4-Hydroxylase Isoenzymes in the Regulation of the Hypoxia Response Pathway along the Murine Gastrointestinal Epithelium. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4038.	4.1	1
78	Genetic Ablation of Transmembrane Prolyl 4-Hydroxylase Reduces Atherosclerotic Plaques in Mice. <i>Arteriosclerosis, Thrombosis, and Vascular Biology</i> , 2021, 41, 2128-2140.	2.4	1
79	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on $\hat{\pm}$ -Ketoglutarate-Dependent Dioxygenases. <i>Blood</i> , 2011, 118, LBA-4-LBA-4.	1.4	1
80	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on $\hat{\pm}$ -Ketoglutarate-Dependent Dioxygenases. <i>Blood</i> , 2011, 118, LBA-4-LBA-4.	1.4	0
81	A Novel EGLN1/PHD2 High-Frequency Variant in Tibetans Protects Against Hypoxia-Induced Polycythemia.. <i>Blood</i> , 2012, 120, 2079-2079.	1.4	0
82	The Circadian Clock Protein CRY1 Is a Negative Regulator of HIF-1 β . <i>SSRN Electronic Journal</i> , 0, , .	0.4	0