William G Kaelin

List of Publications by Year
in descending order

112 papers	25,837 citations	17405 63 h-index	26548 107 g-index
155 all docs	155 docs citations	155 times ranked	31668 citing authors

#	Article	IF	Citations
1	Oxygen Sensing by Metazoans: The Central Role of the HIF Hydroxylase Pathway. Molecular Cell, 2008, 30, 393-402.	4.5	2,614
2	Ubiquitination of hypoxia-inducible factor requires direct binding to the Î²-domain of the von Hippelâ€“Lindau protein. Nature Cell Biology, 2000, 2, 423-427.	4.6	1,423
3	The Concept of Synthetic Lethality in the Context of Anticancer Therapy. Nature Reviews Cancer, 2005, 5, 689-698.	12.8	1,278
4	The Myeloma Drug Lenalidomide Promotes the Cereblon-Dependent Destruction of Ikaros Proteins. Science, 2014, 343, 305-309.	6.0	1,196
5	Genomic correlates of response to immune checkpoint therapies in clear cell renal cell carcinoma. Science, 2018, 359, 801-806.	6.0	898
6	The tyrosine kinase c-Abl regulates p73 in apoptotic response to cisplatin-induced DNA damage. Nature, 1999, 399, 806-809.	13.7	863
7	Structure of the VHL-ElonginC-ElonginB Complex: Implications for VHL Tumor Suppressor Function. Science, 1999, 284, 455-461.	6.0	793
8	Molecular basis of the VHL hereditary cancer syndrome. Nature Reviews Cancer, 2002, 2, 673-682.	12.8	767
9	Influence of Metabolism on Epigenetics and Disease. Cell, 2013, 153, 56-69.	13.5	729
10	Inhibition of HIF is necessary for tumor suppression by the von Hippel-Lindau protein. Cancer Cell, 2002, 1, 237-246.	7.7	695
11	Structure of an HIF-1alpha -pVHL Complex: Hydroxyproline Recognition in Signaling. Science, 2002, 296, 1886-1889.	6.0	679
12	Tumour suppression by the human von Hippel-Lindau gene product. Nature Medicine, 1995, 1, 822-826.	15.2	636
13	Transformation by the (R)-enantiomer of 2-hydroxyglutarate linked to EGLN activation. Nature, 2012, 483, 484-488.	13.7	630
14	(R)-2-Hydroxyglutarate Is Sufficient to Promote Leukemogenesis and Its Effects Are Reversible. Science, 2013, 339, 1621-1625.	6.0	624
15	The von Hippelâ€“Lindau tumour suppressor protein: O2 sensing and cancer. Nature Reviews Cancer, 2008, 8, 865-873.	12.8	616
16	Inhibition of HIF2Î± Is Sufficient to Suppress pVHL-Defective Tumor Growth. PLoS Biology, 2003, 1, e83.	2.6	516
17	Neuronal apoptosis linked to EglN3 prolyl hydroxylase and familial pheochromocytoma genes: Developmental culling and cancer. Cancer Cell, 2005, 8, 155-167.	7.7	494
18	What a difference a hydroxyl makes: mutant IDH, (R)-2-hydroxyglutarate, and cancer. Genes and Development, 2013, 27, 836-852.	2.7	491

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19	PROLINE HYDROXYLATION AND GENE EXPRESSION. Annual Review of Biochemistry, 2005, 74, 115-128.	5.0	410
20	The Retinoblastoma Binding Protein RBP2 Is an H3K4 Demethylase. Cell, 2007, 128, 889-900.	13.5	399
21	Genetic and Functional Studies Implicate HIF1Î± as a 14q Kidney Cancer Suppressor Gene. Cancer Discovery, 2011, 1, 222-235.	7.7	347
22	On-target efficacy of a HIF-2Î± antagonist in preclinical kidney cancer models. Nature, 2016, 539, 107-111.	13.7	341
23	A genetic mechanism for Tibetan high-altitude adaptation. Nature Genetics, 2014, 46, 951-956.	9.4	322
24	A common E2F-1 and p73 pathway mediates cell death induced by TCR activation. Nature, 2000, 407, 642-645.	13.7	309
25	von Hippel-Lindau Disease. Annual Review of Pathology: Mechanisms of Disease, 2007, 2, 145-173.	9.6	293
26	Histone demethylase KDM6A directly senses oxygen to control chromatin and cell fate. Science, 2019, 363, 1217-1222.	6.0	281
27	The von Hippel-Lindau Tumor Suppressor Protein and Clear Cell Renal Carcinoma: Fig. 1.. Clinical Cancer Research, 2007, 13, 680s-684s.	3.2	275
28	Mouse model for noninvasive imaging of HIF prolyl hydroxylase activity: Assessment of an oral agent that stimulates erythropoietin production. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 105-110.	3.3	274
29	Genomic sequencing of colorectal adenocarcinomas identifies a recurrent VTI1A-TCF7L2 fusion. Nature Genetics, 2011, 43, 964-968.	9.4	270
30	The Von Hippel-Lindau Tumor Suppressor Gene and Kidney Cancer: Fig. 1.. Clinical Cancer Research, 2004, 10, 6290S-6295S.	3.2	268
31	Targeting the HIF2â€“VEGF axis in renal cell carcinoma. Nature Medicine, 2020, 26, 1519-1530.	15.2	248
32	Fumarate and Succinate Regulate Expression of Hypoxia-inducible Genes via TET Enzymes. Journal of Biological Chemistry, 2016, 291, 4256-4265.	1.6	234
33	Transaminase Inhibition by 2-Hydroxyglutarate Impairs Glutamate Biosynthesis and Redox Homeostasis in Glioma. Cell, 2018, 175, 101-116.e25.	13.5	234
34	Binding of pRB to the PHD Protein RBP2 Promotes Cellular Differentiation. Molecular Cell, 2005, 18, 623-635.	4.5	215
35	Failure to prolyl hydroxylate hypoxia-inducible factor Î± phenocopies VHL inactivation in vivo. EMBO Journal, 2006, 25, 4650-4662.	3.5	210
36	The von Hippelâ€“Lindau protein, HIF hydroxylation, and oxygen sensing. Biochemical and Biophysical Research Communications, 2005, 338, 627-638.	1.0	197

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37	The EGLN-HIF O 2 -Sensing System: Multiple Inputs and Feedbacks. Molecular Cell, 2017, 66, 772-779.	4.5	192
38	Paracrine Induction of HIF by Glutamate in Breast Cancer: EglN1 Senses Cysteine. Cell, 2016, 166, 126-139.	13.5	187
39	The p53 gene family. Oncogene, 1999, 18, 7701-7705.	2.6	175
40	pVHL suppresses kinase activity of Akt in a proline-hydroxylationâ€“dependent manner. Science, 2016, 353, 929-932.	6.0	165
41	pVHL Acts as an Adaptor to Promote the Inhibitory Phosphorylation of the NF-ÎºB Agonist Card9 by CK2. Molecular Cell, 2007, 28, 15-27.	4.5	163
42	Tumor-selective transgene expression in vivo mediated by an E2F-responsive adenoviral vector. Nature Medicine, 1997, 3, 1145-1149.	15.2	158
43	Use and Abuse of RNAi to Study Mammalian Gene Function. Science, 2012, 337, 421-422.	6.0	158
44	ROS: Really involved in Oxygen Sensing. Cell Metabolism, 2005, 1, 357-358.	7.2	150
45	Loss of the retinoblastoma binding protein 2 (RBP2) histone demethylase suppresses tumorigenesis in mice lacking Rb1 or Men1. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 13379-13386.	3.3	143
46	How oxygen makes its presence felt. Genes and Development, 2002, 16, 1441-1445.	2.7	138
47	CDK7 Inhibition Potentiates Genome Instability Triggering Anti-tumor Immunity in Small Cell Lung Cancer. Cancer Cell, 2020, 37, 37-54.e9.	7.7	138
48	Kinase requirements in human cells: III. Altered kinase requirements inVHLâ^'/â^' cancer cells detected in a pilot synthetic lethal screen. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16484-16489.	3.3	137
49	SQSTM1 Is a Pathogenic Target of 5q Copy Number Gains in Kidney Cancer. Cancer Cell, 2013, 24, 738-750.	7.7	135
50	Common pitfalls in preclinical cancer target validation. Nature Reviews Cancer, 2017, 17, 441-450.	12.8	134
51	VHL substrate transcription factor ZHX2 as an oncogenic driver in clear cell renal cell carcinoma. Science, 2018, 361, 290-295.	6.0	134
52	Inactivation of the PBRM1 tumor suppressor gene amplifies the HIF-response in VHL ^{â^'/â^'} clear cell renal carcinoma. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 1027-1032.	3.3	126
53	Deubiquitinases Maintain Protein Homeostasis and Survival of Cancer Cells upon Glutathione Depletion. Cell Metabolism, 2019, 29, 1166-1181.e6.	7.2	121
54	Control of Cyclin D1 and Breast Tumorigenesis by the EglN2 Prolyl Hydroxylase. Cancer Cell, 2009, 16, 413-424.	7.7	120

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55	PHD3 Loss in Cancer Enables Metabolic Reliance on Fatty Acid Oxidation via Deactivation of ACC2. Molecular Cell, 2016, 63, 1006-1020.	4.5	120
56	Cells Lacking the RB1 Tumor Suppressor Gene Are Hyperdependent on Aurora B Kinase for Survival. Cancer Discovery, 2019, 9, 230-247.	7.7	119
57	2-Oxoglutarate-dependent dioxygenases in cancer. Nature Reviews Cancer, 2020, 20, 710-726.	12.8	119
58	The von Hippel-Lindau Gene, Kidney Cancer, and Oxygen Sensing. Journal of the American Society of Nephrology: JASN, 2003, 14, 2703-2711.	3.0	115
59	Prolyl hydroxylation by EglN2 destabilizes FOXO3a by blocking its interaction with the USP9x deubiquitinase. Genes and Development, 2014, 28, 1429-1444.	2.7	111
60	EGLN1 Inhibition and Rerouting of Î±-Ketoglutarate Suffice for Remote Ischemic Protection. Cell, 2016, 164, 884-895.	13.5	108
61	Treatment of kidney cancer. Cancer, 2009, 115, 2262-2272.	2.0	105
62	Hypoxia-Inducible Factor Linked to Differential Kidney Cancer Risk Seen with Type 2A and Type 2B VHL Mutations. Molecular and Cellular Biology, 2007, 27, 5381-5392.	1.1	102
63	Synthetic lethality: a framework for the development of wiser cancer therapeutics. Genome Medicine, 2009, 1, 99.	3.6	77
64	Phosphorylation of ETS1 by Src Family Kinases Prevents Its Recognition by the COP1 Tumor Suppressor. Cancer Cell, 2014, 26, 222-234.	7.7	71
65	The VHL Tumor Suppressor Gene: Insights into Oxygen Sensing and Cancer. Transactions of the American Clinical and Climatological Association, 2017, 128, 298-307.	0.9	70
66	The KDM5A/RBP2 histone demethylase represses NOTCH signaling to sustain neuroendocrine differentiation and promote small cell lung cancer tumorigenesis. Genes and Development, 2019, 33, 1718-1738.	2.7	65
67	SDH5 Mutations and Familial Paraganglioma: Somewhere Warburg is Smiling. Cancer Cell, 2009, 16, 180-182.	7.7	58
68	EglN2 associates with the <scp>NRF</scp>1â€<scp>PGC</scp>1Î± complex and controls mitochondrial function in breastÂcancer. EMBO Journal, 2015, 34, 2953-2970.	3.5	58
69	Skp2 dictates cell cycle-dependent metabolic oscillation between glycolysis and TCA cycle. Cell Research, 2021, 31, 80-93.	5.7	51
70	Many vessels, faulty gene. Nature, 1999, 399, 203-204.	13.7	47
71	HIF-independent synthetic lethality between CDK4/6 inhibition and VHL loss across species. Science Signaling, 2019, 12, .	1.6	47
72	Inhibition of the oxygen sensor PHD2 in the liver improves survival in lactic acidosis by activating the Cori cycle. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11642-11647.	3.3	46

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73	Targeting HIF2 in Clear Cell Renal Cell Carcinoma. Cold Spring Harbor Symposia on Quantitative Biology, 2016, 81, 113-121.	2.0	43
74	The von Hippelâ€Lindau Tumor Suppressor Protein: An Update. Methods in Enzymology, 2007, 435, 371-383.	0.4	42
75	Peptidic degron for IMiD-induced degradation of heterologous proteins. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 2539-2544.	3.3	41
76	Mouse Reporter Strain for Noninvasive Bioluminescent Imaging of Cells that have Undergone Cre-Mediated Recombination. Molecular Imaging, 2003, 2, 153535002003031.	0.7	36
77	Pathways for Oxygen Regulation and Homeostasis. JAMA - Journal of the American Medical Association, 2016, 316, 1252.	3.8	36
78	HIF activation causes synthetic lethality between the VHL tumor suppressor and the EZH1 histone methyltransferase. Science Translational Medicine, 2017, 9, .	5.8	36
79	Belzutifan, a Potent HIF2Î± Inhibitor, in the Pacakâ€“Zhuang Syndrome. New England Journal of Medicine, 2021, 385, 2059-2065.	13.9	36
80	Genetic Evidence of a Precisely Tuned Dysregulation in the Hypoxia Signaling Pathway during Oncogenesis. Cancer Research, 2014, 74, 6554-6564.	0.4	32
81	Kidney Cancer: Now Available in a New Flavor. Cancer Cell, 2008, 14, 423-424.	7.7	31
82	Targeting oncoproteins with a positive selection assay for protein degraders. Science Advances, 2021, 7, .	4.7	26
83	Peptidic degron in EID1 is recognized by an SCF E3 ligase complex containing the orphan F-box protein FBXO21. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 15372-15377.	3.3	24
84	Cyclin D1 suppresses retinoblastoma protein-mediated inhibition of TAFII250 kinase activity. Oncogene, 2000, 19, 5703-5711.	2.6	21
85	Mutant p53 induces a hypoxia transcriptional program in gastric and esophageal adenocarcinoma. JCI Insight, 2019, 4, .	2.3	21
86	BRCA1-IRIS promotes human tumor progression through PTEN blockade and HIF-1Î± activation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9600-E9609.	3.3	20
87	Gleevec: Prototype or Outlier?. Science Signaling, 2004, 2004, pe12-pe12.	1.6	19
88	HIF2 Inhibitor Joins the Kidney Cancer Armamentarium. Journal of Clinical Oncology, 2018, 36, 908-910.	0.8	14
89	The von Hippelâ€“Lindau Tumor Suppressor Protein. Annual Review of Cancer Biology, 2018, 2, 91-109.	2.3	13
90	EglN3 hydroxylase stabilizes BIM-EL linking VHL type 2C mutations to pheochromocytoma pathogenesis and chemotherapy resistance. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 16997-17006.	3.3	13

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91	From Basic Science to Clinical Translation in Kidney Cancer: A Report from the Second Kidney Cancer Research Summit. Clinical Cancer Research, 2022, 28, 831-839.	3.2	12
92	New cancer targets emerging from studies of the Von Hippelâ€Lindau tumor suppressor protein. Annals of the New York Academy of Sciences, 2010, 1210, 1-7.	1.8	11
93	Sensitivity ofVHLmutant kidney cancers to HIF2 inhibitors does not require an intact p53 pathway. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2120403119.	3.3	11
94	Autochthonous tumors driven by Rb1 loss have an ongoing requirement for the RBP2 histone demethylase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E3741-E3748.	3.3	10
95	Molecular Biology of Kidney Cancer. , 2015, , 31-57.		10
96	Analysis of von Hippelâ€“Lindau Hereditary Cancer Syndrome: Implications of Oxygen Sensing. Methods in Enzymology, 2004, 381, 320-335.	0.4	9
97	A Mesenchymal Tumor Cell State Confers Increased Dependency on the BCL-XL Antiapoptotic Protein in Kidney Cancer. Clinical Cancer Research, 2022, 28, 4689-4701.	3.2	5
98	Leveraging insights into cancer metabolismâ€”a symposium report. Annals of the New York Academy of Sciences, 2020, 1462, 5-13.	1.8	3
99	DisABLing Kidney Cancers Caused by Fumarate Hydratase Mutations. Cancer Cell, 2014, 26, 779-780.	7.7	2
100	Climate Change. JAMA - Journal of the American Medical Association, 2017, 318, 611.	3.8	2
101	DDRE-29. DE NOVO PYRIMIDINE SYNTHESIS IS A TARGETABLE VULNERABILITY IN IDH-MUTANT GLIOMA. Neuro-Oncology Advances, 2021, 3, i12-i13.	0.4	1
102	Liver Specific Delivery of siRNA Targeting EGLN Prolyl Hydroxylases Activates Hepatic Erythropoietin Production and Stimulates Erythropoiesis,. Blood, 2011, 118, 3161-3161.	0.6	1
103	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on Î±-Ketoglutarate-Dependent Dioxygenases. Blood, 2011, 118, LBA-4-LBA-4.	0.6	1
104	A Comprehensive Study of the VHL-R200W Chuvash Polycythemia Mutation Reveals a Gradual Dysregulation of the Hypoxia Pathway in Oncogenesis. Blood, 2014, 124, 4020-4020.	0.6	1
105	IDH Mutations, 2-Oxoglutarate-dependent Dioxygenases, and Leukemia. Blood, 2014, 124, SCI-6-SCI-6.	0.6	1
106	Mutation Selective IDH Inhibitors Mediate Histone and DNA Methylation Changes. Blood, 2012, 120, 3509-3509.	0.6	1
107	David M. Livingston (1941â€“2021). Cell, 2021, 184, 6007-6009.	13.5	1
108	Senator McCain and Our Shared Humanity. American Journal of Medicine, 2018, 131, 216-217.	0.6	0

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109	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on Î±-Ketoglutarate-Dependent Dioxygenases. Blood, 2011, 118, LBA-4-LBA-4.	0.6	0
110	Transformation by Mutant IDH and (R)-2HG Is Reversible.. Blood, 2012, 120, 2413-2413.	0.6	0
111	Disruption of the Ikaros-Mediated Gene Expression Program in Multiple Myeloma with Immunomodulatory Agents. Blood, 2014, 124, 420-420.	0.6	0
112	Targeting Oncoproteins with a Positive Selection Assay for Protein Degraders. Blood, 2020, 136, 13-14.	0.6	0