

William G Kaelin

List of Publications by Year in descending order

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112
papers

25,837
citations

17440

63
h-index

26613

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. <i>Molecular Cell</i> , 2008, 30, 393-402.	9.7	2,614
2	Ubiquitination of hypoxia-inducible factor requires direct binding to the β^2 -domain of the von Hippel-Lindau protein. <i>Nature Cell Biology</i> , 2000, 2, 423-427.	10.3	1,423
3	The Concept of Synthetic Lethality in the Context of Anticancer Therapy. <i>Nature Reviews Cancer</i> , 2005, 5, 689-698.	28.4	1,278
4	The Myeloma Drug Lenalidomide Promotes the Cereblon-Dependent Destruction of Ikaros Proteins. <i>Science</i> , 2014, 343, 305-309.	12.6	1,196
5	Genomic correlates of response to immune checkpoint therapies in clear cell renal cell carcinoma. <i>Science</i> , 2018, 359, 801-806.	12.6	898
6	The tyrosine kinase c-Abl regulates p73 in apoptotic response to cisplatin-induced DNA damage. <i>Nature</i> , 1999, 399, 806-809.	27.8	863
7	Structure of the VHL-ElonginC-ElonginB Complex: Implications for VHL Tumor Suppressor Function. <i>Science</i> , 1999, 284, 455-461.	12.6	793
8	Molecular basis of the VHL hereditary cancer syndrome. <i>Nature Reviews Cancer</i> , 2002, 2, 673-682.	28.4	767
9	Influence of Metabolism on Epigenetics and Disease. <i>Cell</i> , 2013, 153, 56-69.	28.9	729
10	Inhibition of HIF is necessary for tumor suppression by the von Hippel-Lindau protein. <i>Cancer Cell</i> , 2002, 1, 237-246.	16.8	695
11	Structure of an HIF-1 β -pVHL Complex: Hydroxyproline Recognition in Signaling. <i>Science</i> , 2002, 296, 1886-1889.	12.6	679
12	Tumour suppression by the human von Hippel-Lindau gene product. <i>Nature Medicine</i> , 1995, 1, 822-826.	30.7	636
13	Transformation by the (R)-enantiomer of 2-hydroxyglutarate linked to EGLN activation. <i>Nature</i> , 2012, 483, 484-488.	27.8	630
14	(R)-2-Hydroxyglutarate Is Sufficient to Promote Leukemogenesis and Its Effects Are Reversible. <i>Science</i> , 2013, 339, 1621-1625.	12.6	624
15	The von Hippel-Lindau tumour suppressor protein: O ₂ sensing and cancer. <i>Nature Reviews Cancer</i> , 2008, 8, 865-873.	28.4	616
16	Inhibition of HIF2 β Is Sufficient to Suppress pVHL-Defective Tumor Growth. <i>PLoS Biology</i> , 2003, 1, e83.	5.6	516
17	Neuronal apoptosis linked to EglN3 prolyl hydroxylase and familial pheochromocytoma genes: Developmental culling and cancer. <i>Cancer Cell</i> , 2005, 8, 155-167.	16.8	494
18	What a difference a hydroxyl makes: mutant IDH, (R)-2-hydroxyglutarate, and cancer. <i>Genes and Development</i> , 2013, 27, 836-852.	5.9	491

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19	PROLINE HYDROXYLATION AND GENE EXPRESSION. Annual Review of Biochemistry, 2005, 74, 115-128.	11.1	410
20	The Retinoblastoma Binding Protein RBP2 Is an H3K4 Demethylase. Cell, 2007, 128, 889-900.	28.9	399
21	Genetic and Functional Studies Implicate <i>HIF1α</i> as a 14q Kidney Cancer Suppressor Gene. Cancer Discovery, 2011, 1, 222-235.	9.4	347
22	On-target efficacy of a HIF-2 α antagonist in preclinical kidney cancer models. Nature, 2016, 539, 107-111.	27.8	341
23	A genetic mechanism for Tibetan high-altitude adaptation. Nature Genetics, 2014, 46, 951-956.	21.4	322
24	A common E2F-1 and p73 pathway mediates cell death induced by TCR activation. Nature, 2000, 407, 642-645.	27.8	309
25	von Hippel-Lindau Disease. Annual Review of Pathology: Mechanisms of Disease, 2007, 2, 145-173.	22.4	293
26	Histone demethylase KDM6A directly senses oxygen to control chromatin and cell fate. Science, 2019, 363, 1217-1222.	12.6	281
27	The von Hippel-Lindau Tumor Suppressor Protein and Clear Cell Renal Carcinoma. Clinical Cancer Research, 2007, 13, 680s-684s.	7.0	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.	7.1	274
29	Genomic sequencing of colorectal adenocarcinomas identifies a recurrent VTI1A-TCF7L2 fusion. Nature Genetics, 2011, 43, 964-968.	21.4	270
30	The Von Hippel-Lindau Tumor Suppressor Gene and Kidney Cancer. Clinical Cancer Research, 2004, 10, 6290S-6295S.	7.0	268
31	Targeting the HIF-2 α -VEGF axis in renal cell carcinoma. Nature Medicine, 2020, 26, 1519-1530.	30.7	248
32	Fumarate and Succinate Regulate Expression of Hypoxia-inducible Genes via TET Enzymes. Journal of Biological Chemistry, 2016, 291, 4256-4265.	3.4	234
33	Transaminase Inhibition by 2-Hydroxyglutarate Impairs Glutamate Biosynthesis and Redox Homeostasis in Glioma. Cell, 2018, 175, 101-116.e25.	28.9	234
34	Binding of pRB to the PHD Protein RBP2 Promotes Cellular Differentiation. Molecular Cell, 2005, 18, 623-635.	9.7	215
35	Failure to prolyl hydroxylate hypoxia-inducible factor α phenocopies VHL inactivation in vivo. EMBO Journal, 2006, 25, 4650-4662.	7.8	210
36	The von Hippel-Lindau protein, HIF hydroxylation, and oxygen sensing. Biochemical and Biophysical Research Communications, 2005, 338, 627-638.	2.1	197

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37	The EGLN-HIF O ₂ -Sensing System: Multiple Inputs and Feedbacks. <i>Molecular Cell</i> , 2017, 66, 772-779.	9.7	192
38	Paracrine Induction of HIF by Glutamate in Breast Cancer: EglN1 Senses Cysteine. <i>Cell</i> , 2016, 166, 126-139.	28.9	187
39	The p53 gene family. <i>Oncogene</i> , 1999, 18, 7701-7705.	5.9	175
40	pVHL suppresses kinase activity of Akt in a proline-hydroxylation-dependent manner. <i>Science</i> , 2016, 353, 929-932.	12.6	165
41	pVHL Acts as an Adaptor to Promote the Inhibitory Phosphorylation of the NF- κ B Agonist Card9 by CK2. <i>Molecular Cell</i> , 2007, 28, 15-27.	9.7	163
42	Tumor-selective transgene expression in vivo mediated by an E2F-responsive adenoviral vector. <i>Nature Medicine</i> , 1997, 3, 1145-1149.	30.7	158
43	Use and Abuse of RNAi to Study Mammalian Gene Function. <i>Science</i> , 2012, 337, 421-422.	12.6	158
44	ROS: Really involved in Oxygen Sensing. <i>Cell Metabolism</i> , 2005, 1, 357-358.	16.2	150
45	Loss of the retinoblastoma binding protein 2 (RBP2) histone demethylase suppresses tumorigenesis in mice lacking <i>Rb1</i> or <i>Men1</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 13379-13386.	7.1	143
46	How oxygen makes its presence felt. <i>Genes and Development</i> , 2002, 16, 1441-1445.	5.9	138
47	CDK7 Inhibition Potentiates Genome Instability Triggering Anti-tumor Immunity in Small Cell Lung Cancer. <i>Cancer Cell</i> , 2020, 37, 37-54.e9.	16.8	138
48	Kinase requirements in human cells: III. Altered kinase requirements in <i>VHL</i> cancer cells detected in a pilot synthetic lethal screen. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 16484-16489.	7.1	137
49	SQSTM1 Is a Pathogenic Target of 5q Copy Number Gains in Kidney Cancer. <i>Cancer Cell</i> , 2013, 24, 738-750.	16.8	135
50	Common pitfalls in preclinical cancer target validation. <i>Nature Reviews Cancer</i> , 2017, 17, 441-450.	28.4	134
51	VHL substrate transcription factor ZHX2 as an oncogenic driver in clear cell renal cell carcinoma. <i>Science</i> , 2018, 361, 290-295.	12.6	134
52	Inactivation of the PBRM1 tumor suppressor gene amplifies the HIF-response in <i>VHL</i> clear cell renal carcinoma. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 1027-1032.	7.1	126
53	Deubiquitinases Maintain Protein Homeostasis and Survival of Cancer Cells upon Glutathione Depletion. <i>Cell Metabolism</i> , 2019, 29, 1166-1181.e6.	16.2	121
54	Control of Cyclin D1 and Breast Tumorigenesis by the EglN2 Prolyl Hydroxylase. <i>Cancer Cell</i> , 2009, 16, 413-424.	16.8	120

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55	PHD3 Loss in Cancer Enables Metabolic Reliance on Fatty Acid Oxidation via Deactivation of ACC2. <i>Molecular Cell</i> , 2016, 63, 1006-1020.	9.7	120
56	Cells Lacking the <i>RB1</i> Tumor Suppressor Gene Are Hyperdependent on Aurora B Kinase for Survival. <i>Cancer Discovery</i> , 2019, 9, 230-247.	9.4	119
57	2-Oxoglutarate-dependent dioxygenases in cancer. <i>Nature Reviews Cancer</i> , 2020, 20, 710-726.	28.4	119
58	The von Hippel-Lindau Gene, Kidney Cancer, and Oxygen Sensing. <i>Journal of the American Society of Nephrology: JASN</i> , 2003, 14, 2703-2711.	6.1	115
59	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
60	EGLN1 Inhibition and Rerouting of α -Ketoglutarate Suffice for Remote Ischemic Protection. <i>Cell</i> , 2016, 164, 884-895.	28.9	108
61	Treatment of kidney cancer. <i>Cancer</i> , 2009, 115, 2262-2272.	4.1	105
62	Hypoxia-Inducible Factor Linked to Differential Kidney Cancer Risk Seen with Type 2A and Type 2B VHL Mutations. <i>Molecular and Cellular Biology</i> , 2007, 27, 5381-5392.	2.3	102
63	Synthetic lethality: a framework for the development of wiser cancer therapeutics. <i>Genome Medicine</i> , 2009, 1, 99.	8.2	77
64	Phosphorylation of ETS1 by Src Family Kinases Prevents Its Recognition by the COP1 Tumor Suppressor. <i>Cancer Cell</i> , 2014, 26, 222-234.	16.8	71
65	The VHL Tumor Suppressor Gene: Insights into Oxygen Sensing and Cancer. <i>Transactions of the American Clinical and Climatological Association</i> , 2017, 128, 298-307.	0.5	70
66	The KDM5A/RBP2 histone demethylase represses NOTCH signaling to sustain neuroendocrine differentiation and promote small cell lung cancer tumorigenesis. <i>Genes and Development</i> , 2019, 33, 1718-1738.	5.9	65
67	SDH5 Mutations and Familial Paraganglioma: Somewhere Warburg is Smiling. <i>Cancer Cell</i> , 2009, 16, 180-182.	16.8	58
68	EglN2 associates with the <i>NRF1</i> - <i>PGC1α</i> complex and controls mitochondrial function in breast cancer. <i>EMBO Journal</i> , 2015, 34, 2953-2970.	7.8	58
69	Skp2 dictates cell cycle-dependent metabolic oscillation between glycolysis and TCA cycle. <i>Cell Research</i> , 2021, 31, 80-93.	12.0	51
70	Many vessels, faulty gene. <i>Nature</i> , 1999, 399, 203-204.	27.8	47
71	HIF-independent synthetic lethality between CDK4/6 inhibition and VHL loss across species. <i>Science Signaling</i> , 2019, 12, .	3.6	47
72	Inhibition of the oxygen sensor PHD2 in the liver improves survival in lactic acidosis by activating the Cori cycle. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11642-11647.	7.1	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.	1.1	43
74	The von Hippel-Lindau Tumor Suppressor Protein: An Update. Methods in Enzymology, 2007, 435, 371-383.	1.0	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.	7.1	41
76	Mouse Reporter Strain for Noninvasive Bioluminescent Imaging of Cells that have Undergone Cre-Mediated Recombination. Molecular Imaging, 2003, 2, 153535002003031.	1.4	36
77	Pathways for Oxygen Regulation and Homeostasis. JAMA - Journal of the American Medical Association, 2016, 316, 1252.	7.4	36
78	HIF activation causes synthetic lethality between the <i>VHL</i> tumor suppressor and the <i>EZH1</i> histone methyltransferase. Science Translational Medicine, 2017, 9, .	12.4	36
79	Belzutifan, a Potent HIF2 α Inhibitor, in the Pacak-Zhuang Syndrome. New England Journal of Medicine, 2021, 385, 2059-2065.	27.0	36
80	Genetic Evidence of a Precisely Tuned Dysregulation in the Hypoxia Signaling Pathway during Oncogenesis. Cancer Research, 2014, 74, 6554-6564.	0.9	32
81	Kidney Cancer: Now Available in a New Flavor. Cancer Cell, 2008, 14, 423-424.	16.8	31
82	Targeting oncoproteins with a positive selection assay for protein degraders. Science Advances, 2021, 7, .	10.3	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.	7.1	24
84	Cyclin D1 suppresses retinoblastoma protein-mediated inhibition of TAFII250 kinase activity. Oncogene, 2000, 19, 5703-5711.	5.9	21
85	Mutant p53 induces a hypoxia transcriptional program in gastric and esophageal adenocarcinoma. JCI Insight, 2019, 4, .	5.0	21
86	BRCA1-IRIS promotes human tumor progression through PTEN blockade and HIF-1 α activation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E9600-E9609.	7.1	20
87	Gleevec: Prototype or Outlier?. Science Signaling, 2004, 2004, pe12-pe12.	3.6	19
88	HIF2 Inhibitor Joins the Kidney Cancer Armamentarium. Journal of Clinical Oncology, 2018, 36, 908-910.	1.6	14
89	The von Hippel-Lindau Tumor Suppressor Protein. Annual Review of Cancer Biology, 2018, 2, 91-109.	4.5	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.	7.1	13

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91	From Basic Science to Clinical Translation in Kidney Cancer: A Report from the Second Kidney Cancer Research Summit. <i>Clinical Cancer Research</i> , 2022, 28, 831-839.	7.0	12
92	New cancer targets emerging from studies of the Von Hippel-Lindau tumor suppressor protein. <i>Annals of the New York Academy of Sciences</i> , 2010, 1210, 1-7.	3.8	11
93	Sensitivity of VHL mutant kidney cancers to HIF2 inhibitors does not require an intact p53 pathway. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2120403119.	7.1	11
94	Autochthonous tumors driven by Rb1 loss have an ongoing requirement for the RBP2 histone demethylase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, E3741-E3748.	7.1	10
95	<i>Molecular Biology of Kidney Cancer</i> . , 2015, , 31-57.		10
96	Analysis of von Hippel-Lindau Hereditary Cancer Syndrome: Implications of Oxygen Sensing. <i>Methods in Enzymology</i> , 2004, 381, 320-335.	1.0	9
97	A Mesenchymal Tumor Cell State Confers Increased Dependency on the BCL-XL Antiapoptotic Protein in Kidney Cancer. <i>Clinical Cancer Research</i> , 2022, 28, 4689-4701.	7.0	5
98	Leveraging insights into cancer metabolism—a symposium report. <i>Annals of the New York Academy of Sciences</i> , 2020, 1462, 5-13.	3.8	3
99	Disabling Kidney Cancers Caused by Fumarate Hydratase Mutations. <i>Cancer Cell</i> , 2014, 26, 779-780.	16.8	2
100	Climate Change. <i>JAMA - Journal of the American Medical Association</i> , 2017, 318, 611.	7.4	2
101	DDRE-29. DE NOVO PYRIMIDINE SYNTHESIS IS A TARGETABLE VULNERABILITY IN IDH-MUTANT GLIOMA. <i>Neuro-Oncology Advances</i> , 2021, 3, i12-i13.	0.7	1
102	Liver Specific Delivery of siRNA Targeting EGLN Prolyl Hydroxylases Activates Hepatic Erythropoietin Production and Stimulates Erythropoiesis. <i>Blood</i> , 2011, 118, 3161-3161.	1.4	1
103	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on α -Ketoglutarate-Dependent Dioxygenases. <i>Blood</i> , 2011, 118, LBA-4-LBA-4.	1.4	1
104	A Comprehensive Study of the VHL-R200W Chuvash Polycythemia Mutation Reveals a Gradual Dysregulation of the Hypoxia Pathway in Oncogenesis. <i>Blood</i> , 2014, 124, 4020-4020.	1.4	1
105	IDH Mutations, 2-Oxoglutarate-dependent Dioxygenases, and Leukemia. <i>Blood</i> , 2014, 124, SCI-6-SCI-6.	1.4	1
106	Mutation Selective IDH Inhibitors Mediate Histone and DNA Methylation Changes. <i>Blood</i> , 2012, 120, 3509-3509.	1.4	1
107	David M. Livingston (1941–2021). <i>Cell</i> , 2021, 184, 6007-6009.	28.9	1
108	Senator McCain and Our Shared Humanity. <i>American Journal of Medicine</i> , 2018, 131, 216-217.	1.5	0

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109	Enantiomer-Specific Transformation by 2HG Is Linked to Opposing Effects on $\hat{\pm}$ -Ketoglutarate-Dependent Dioxygenases. Blood, 2011, 118, LBA-4-LBA-4.	1.4	0
110	Transformation by Mutant IDH and (R)-2HG Is Reversible.. Blood, 2012, 120, 2413-2413.	1.4	0
111	Disruption of the Ikaros-Mediated Gene Expression Program in Multiple Myeloma with Immunomodulatory Agents. Blood, 2014, 124, 420-420.	1.4	0
112	Targeting Oncoproteins with a Positive Selection Assay for Protein Degradation. Blood, 2020, 136, 13-14.	1.4	0