Douglas R Cavener

List of Publications by Year
in descending order

92 papers	10,489 citations	50276 46 h-index	51608 86 g-index
95 all docs	95 docs citations	95 times ranked	12146 citing authors

#	Article	IF	Citations
1	Comparison of the consensus sequence flanking translational start sites inDrosophilaand vertebrates. Nucleic Acids Research, 1987, 15, 1353-1361.	14.5	1,064
2	The Combined Effects of Tryptophan Starvation and Tryptophan Catabolites Down-Regulate T Cell Receptor Î¶-Chain and Induce a Regulatory Phenotype in Naive T Cells. Journal of Immunology, 2006, 176, 6752-6761.	0.8	943
3	Eukaryotic start and stop translation sites. Nucleic Acids Research, 1991, 19, 3185-3192.	14.5	631
4	The PERK Eukaryotic Initiation Factor 2Î± Kinase Is Required for the Development of the Skeletal System, Postnatal Growth, and the Function and Viability of the Pancreas. Molecular and Cellular Biology, 2002, 22, 3864-3874.	2.3	537
5	Suppression of eIF2Î± kinases alleviates Alzheimer's diseaseâ€“related plasticity and memory deficits. Nature Neuroscience, 2013, 16, 1299-1305.	14.8	486
6	Activating Transcription Factor 3 Is Integral to the Eukaryotic Initiation Factor 2 Kinase Stress Response. Molecular and Cellular Biology, 2004, 24, 1365-1377.	2.3	436
7	The GCN2 eIF2Î± Kinase Is Required for Adaptation to Amino Acid Deprivation in Mice. Molecular and Cellular Biology, 2002, 22, 6681-6688.	2.3	395
8	Phosphorylation of the Î± Subunit of Eukaryotic Initiation Factor 2 Is Required for Activation of NF-ÎºB in Response to Diverse Cellular Stresses. Molecular and Cellular Biology, 2003, 23, 5651-5663.	2.3	390
9	Mutations in GLIS3 are responsible for a rare syndrome with neonatal diabetes mellitus and congenital hypothyroidism. Nature Genetics, 2006, 38, 682-687.	21.4	327
10	Uncharged tRNA and Sensing of Amino Acid Deficiency in Mammalian Piriform Cortex. Science, 2005, 307, 1776-1778.	12.6	287
11	Translational Control and the Unfolded Protein Response. Antioxidants and Redox Signaling, 2007, 9, 2357-2372.	5.4	268
12	A Mammalian Homologue of GCN2 Protein Kinase Important for Translational Control by Phosphorylation of Eukaryotic Initiation Factor-2Î±. Genetics, 2000, 154, 787-801.	2.9	251
13	PERK EIF2AK3 control of pancreatic Î² cell differentiation and proliferation is required for postnatal glucose homeostasis. Cell Metabolism, 2006, 4, 491-497.	16.2	247
14	GMC oxidoreductases. Journal of Molecular Biology, 1992, 223, 811-814.	4.2	245
15	The GCN2 eIF2Î± Kinase Regulates Fatty-Acid Homeostasis in the Liver during Deprivation of an Essential Amino Acid. Cell Metabolism, 2007, 5, 103-114.	16.2	243
16	Endoplasmic Reticulum Stress Response Mediated by the PERK-eIF2Î±-ATF4 Pathway Is Involved in Osteoblast Differentiation Induced by BMP2. Journal of Biological Chemistry, 2011, 286, 4809-4818.	3.4	229
17	PERK-dependent regulation of lipogenesis during mouse mammary gland development and adipocyte differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 16314-16319.	7.1	228
18	Brain ischemia and reperfusion activates the eukaryotic initiation factor 2Î± kinase, PERK. Journal of Neurochemistry, 2001, 77, 1418-1421.	3.9	209

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19	Preservation of Liver Protein Synthesis during Dietary Leucine Deprivation Occurs at the Expense of Skeletal Muscle Mass in Mice Deleted for eIF2 Kinase GCN2. Journal of Biological Chemistry, 2004, 279, 36553-36561.	3.4	191
20	PERK (eIF2Î± kinase) is required to activate the stress-activated MAPKs and induce the expression of immediate-early genes upon disruption of ER calcium homoeostasis. Biochemical Journal, 2006, 393, 201-209.	3.7	126
21	Brain-Specific Disruption of the eIF2Î± Kinase PERK Decreases ATF4 Expression and Impairs Behavioral Flexibility. Cell Reports, 2012, 1, 676-688.	6.4	126
22	PERK (EIF2AK3) Regulates Proinsulin Trafficking and Quality Control in the Secretory Pathway. Diabetes, 2010, 59, 1937-1947.	0.6	116
23	PERK is essential for neonatal skeletal development to regulate osteoblast proliferation and differentiation. Journal of Cellular Physiology, 2008, 217, 693-707.	4.1	110
24	Proinsulin Disulfide Maturation and Misfolding in the Endoplasmic Reticulum. Journal of Biological Chemistry, 2005, 280, 13209-13212.	3.4	98
25	Tryptophan catabolism generates autoimmune-preventive regulatory T cells. Transplant Immunology, 2006, 17, 58-60.	1.2	97
26	Rapid Turnover of the mTOR Complex 1 (mTORC1) Repressor REDD1 and Activation of mTORC1 Signaling following Inhibition of Protein Synthesis. Journal of Biological Chemistry, 2008, 283, 3465-3475.	3.4	92
27	GCN2 Protein Kinase Is Required to Activate Amino Acid Deprivation Responses in Mice Treated with the Anti-cancer Agent l-Asparaginase. Journal of Biological Chemistry, 2009, 284, 32742-32749.	3.4	90
28	MULTIGENIC RESPONSE TO ETHANOL IN <i>DROSOPHILA MELANOGASTER</i>. Evolution; International Journal of Organic Evolution, 1981, 35, 1-10.	2.3	87
29	Endoplasmic Reticulum Stress Sensor Protein Kinase Râ€“Like Endoplasmic Reticulum Kinase (PERK) Protects Against Pressure Overloadâ€“Induced Heart Failure and Lung Remodeling. Hypertension, 2014, 64, 738-744.	2.7	86
30	Insulin Secretion and Ca2+ Dynamics in Î²-Cells Are Regulated by PERK (EIF2AK3) in Concert with Calcineurin. Journal of Biological Chemistry, 2013, 288, 33824-33836.	3.4	81
31	PERK eIF2 alpha kinase is required to regulate the viability of the exocrine pancreas in mice. BMC Cell Biology, 2007, 8, 38.	3.0	74
32	Repression of the eIF2Î± kinase PERK alleviates mGluR-LTD impairments in a mouse model of Alzheimer's disease. Neurobiology of Aging, 2016, 41, 19-24.	3.1	70
33	Preference for ethanol inDrosophila melanogaster associated with the alcohol dehydrogenase polymorphism. Behavior Genetics, 1979, 9, 359-365.	2.1	66
34	eIF2Î± kinases GCN2 and PERK modulate transcription and translation of distinct sets of mRNAs in mouse liver. Physiological Genomics, 2009, 38, 328-341.	2.3	66
35	25-Hydroxycholesterol Activates the Integrated Stress Response to Reprogram Transcription and Translation in Macrophages. Journal of Biological Chemistry, 2013, 288, 35812-35823.	3.4	64
36	The PERK arm of the unfolded protein response regulates satellite cell-mediated skeletal muscle regeneration. ELife, 2017, 6, .	6.0	63

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37	Genomic DNA analysis of the estrogen receptor gene in breast cancer. Breast Cancer Research and Treatment, 1989, 14, 57-64.	2.5	62
38	PERK is responsible for the increased phosphorylation of eIF2Î± and the severe inhibition of protein synthesis after transient global brain ischemia. Journal of Neurochemistry, 2005, 94, 1235-1242.	3.9	61
39	PERK in beta cell biology and insulin biogenesis. Trends in Endocrinology and Metabolism, 2010, 21, 714-721.	7.1	61
40	The eIF2Î± kinase PERK limits the expression of hippocampal metabotropic glutamate receptor-dependent long-term depression. Learning and Memory, 2014, 21, 298-304.	1.3	60
41	Expansion and evolution of insect GMC oxidoreductases. BMC Evolutionary Biology, 2007, 7, 75.	3.2	58
42	Isolation of the Gene Encoding the Drosophila melanogaster Homolog of the Saccharomyces cerevisiae GCN2 eIF-2Î± Kinase. Genetics, 1998, 149, 1495-1509.	2.9	56
43	Glucose dehydrogenase is required for normal sperm storage and utilization in female Drosophila melanogaster. Journal of Experimental Biology, 2004, 207, 675-681.	1.7	53
44	Hyperthermia Induces the ER Stress Pathway. PLoS ONE, 2011, 6, e23740.	2.5	53
45	PERK eIF2Î± Kinase Regulates Neonatal Growth by Controlling the Expression of Circulating Insulin-Like Growth Factor-I Derived from the Liver. Endocrinology, 2003, 144, 3505-3513.	2.8	50
46	PERK Regulates the Proliferation and Development of Insulin-Secreting Beta-Cell Tumors in the Endocrine Pancreas of Mice. PLoS ONE, 2009, 4, e8008.	2.5	50
47	A REHABILITATION OF THE GENETIC MAP OF THE 84B-D REGION IN <i>DROSOPHILA MELANOGASTER</i>. Genetics, 1986, 114, 111-123.	2.9	49
48	Giraffe genome sequence reveals clues to its unique morphology and physiology. Nature Communications, 2016, 7, 11519.	12.8	47
49	Acute ablation of PERK results in ER dysfunctions followed by reduced insulin secretion and cell proliferation. BMC Cell Biology, 2009, 10, 61.	3.0	46
50	Genetic inactivation of PERK signaling in mouse oligodendrocytes: Normal developmental myelination with increased susceptibility to inflammatory demyelination. Glia, 2014, 62, 680-691.	4.9	42
51	Genetics of male-specific glucose oxidase and the identification of other unusual hexose enzymes in Drosophila melanogaster. Biochemical Genetics, 1980, 18, 929-937.	1.7	40
52	Ecdysteroid regulation of glucose dehydrogenase and alcohol dehydrogenase gene expression in Drosophila melanogaster. Developmental Biology, 1989, 135, 66-73.	2.0	39
53	Heat Shock Effects on Phosphorylation of Protein Synthesis Initiation Factor Proteins eIF-4E and eIF-2.alpha. in Drosophila. Biochemistry, 1995, 34, 2985-2997.	2.5	37
54	THE RESPONSE OF ENZYME POLYMORPHISMS TO DEVELOPMENTAL RATE SELECTION IN <i>DROSOPHILA MELANOGASTER</i>. Genetics, 1983, 105, 105-113.	2.9	37

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55	TEMPORAL STABILITY OF ALLOZYME FREQUENCIES IN A NATURAL POPULATION OF <i>DROSOPHILA MELANOGASTER</i>. Genetics, 1981, 98, 613-623.	2.9	36
56	The Drosophila melanogaster stranded at second (sas) gene encodes a putative epidermal cell surface receptor required for larval development. Developmental Biology, 1992, 151, 431-445.	2.0	35
57	Transgenic animal studies on the evolution of genetic regulatory circuitries. BioEssays, 1992, 14, 237-244.	2.5	33
58	The protein kinase PERK/EIF2AK3 regulates proinsulin processing not via protein synthesis but by controlling endoplasmic reticulum chaperones. Journal of Biological Chemistry, 2018, 293, 5134-5149.	3.4	33
59	Correlated evolution of the cis-acting regulatory elements and developmental expression of theDrosophila Gld gene in seven species from the subgroupmelanogaster. Genesis, 1994, 15, 38-50.	2.1	24
60	Ablation of<i>Perk</i>in Schwann Cells Improves Myelination in the S63del Charcot-Marie-Tooth 1B Mouse. Journal of Neuroscience, 2016, 36, 11350-11361.	3.6	24
61	Multigenic Response to Ethanol in Drosophila melanogaster. Evolution; International Journal of Organic Evolution, 1981, 35, 1.	2.3	20
62	Ribosome binding protein GCN1Âregulates the cell cycle and cell proliferation and is essential for the embryonic development of mice. PLoS Genetics, 2020, 16, e1008693.	3.5	20
63	Organ-specific patterns of gene expression in the reproductive tract of Drosophila are regulated by the sex-determination genes. Developmental Biology, 1991, 146, 451-460.	2.0	19
64	Perk Gene Dosage Regulates Glucose Homeostasis by Modulating Pancreatic Î²-Cell Functions. PLoS ONE, 2014, 9, e99684.	2.5	19
65	Isolation and characterization of the Drosophila melanogaster eIF-2Î± gene encoding the alpha subunit of translation initiation factor eIF-2. Gene, 1994, 140, 239-242.	2.2	17
66	PERK Regulates Working Memory and Protein Synthesis-Dependent Memory Flexibility. PLoS ONE, 2016, 11, e0162766.	2.5	17
67	PERK regulates Gq protein-coupled intracellular Ca2+ dynamics in primary cortical neurons. Molecular Brain, 2016, 9, 87.	2.6	16
68	Seeing spots: quantifying mother-offspring similarity and assessing fitness consequences of coat pattern traits in a wild population of giraffes (<i>Giraffa camelopardalis</i>). PeerJ, 2018, 6, e5690.	2.0	15
69	Combinatorial control of structural genes inDrosophila: Solutions that work for the animal. BioEssays, 1987, 7, 103-107.	2.5	14
70	Isolation and characterization of the Drosophila melanogaster gene encoding translation-initiation factor eIF-2Î². Gene, 1994, 142, 271-274.	2.2	14
71	Genetic connectivity and population structure of African savanna elephants (Loxodonta africana) in Tanzania. Ecology and Evolution, 2020, 10, 11069-11089.	1.9	13
72	Detection of estrogen receptor mRNA in human uterus. Molecular and Cellular Endocrinology, 1987, 52, 235-242.	3.2	12

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73	Complex Organization of Promoter and Enhancer Elements Regulate the Tissue- and Developmental Stage-Specific Expression of the <i>Drosophila melanogaster Gld</i> Gene. Genetics, 2001, 157, 699-715.	2.9	12
74	Tissue-specific regulatory elements of the Drosophila Gld gene. Mechanisms of Development, 1993, 42, 3-13.	1.7	10
75	GCN2 in the Brain Programs PPARÎ³2 and Triglyceride Storage in the Liver during Perinatal Development in Response to Maternal Dietary Fat. PLoS ONE, 2013, 8, e75917.	2.5	10
76	Evolutionary analysis of vision genes identifies potential drivers of visual differences between giraffe and okapi. PeerJ, 2017, 5, e3145.	2.0	9
77	The YYRR box: a conserved dipyrimidine-dipurine sequence element inDrosophilaand other eukaryotes. Nucleic Acids Research, 1988, 16, 3375-3390.	14.5	7
78	Evolution of Developmental Regulation. American Naturalist, 1989, 134, 459-473.	2.1	7
79	Dynamics of Correlated Genetic Systems. VII. Demographic Aspects of Sex-Linked Transmission. American Naturalist, 1982, 120, 108-118.	2.1	6
80	Sleeping Beauty, Awake! Regulation of Insulin Gene Expression by Methylation of Histone H3. Diabetes, 2009, 58, 28-29.	0.6	4
81	A Somatic Reproductive Organ Enhancer Complex Activates Expression in both the Developing and the MatureDrosophilaReproductive Tract. Developmental Biology, 1996, 180, 311-323.	2.0	3
82	Calcineurin Activity Is Increased in Charcot-Marie-Tooth 1B Demyelinating Neuropathy. Journal of Neuroscience, 2021, 41, 4536-4548.	3.6	3
83	Chronic granulomatous disease. Nature, 1987, 325, 21-21.	27.8	2
84	Co-opting regulation bypass repair as a gene-correction strategy for monogenic diseases. Molecular Therapy, 2021, 29, 3274-3292.	8.2	2
85	Response of theG6pd and6Pgd polymorphisms inDrosophila melanogaster to dietary selection. Genetica, 1984, 63, 81-83.	1.1	1
86	The Developmental Genetic Basis of Organismal Evolution. Evolution; International Journal of Organic Evolution, 1983, 37, 1321.	2.3	0
87	THE DEVELOPMENTAL GENETIC BASIS OF ORGANISMAL EVOLUTION. Evolution; International Journal of Organic Evolution, 1983, 37, 1321-1322.	2.3	0
88	Isolation of genes encoding proteins of immunological importance. Methods in Enzymology, 1987, 150, 746-754.	1.0	0
89	Title is missing!. , 2020, 16, e1008693.		0
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91	Title is missing!. , 2020, 16, e1008693.		0
92	Title is missing!. , 2020, 16, e1008693.		0