

# Douglas R Cavener

## List of Publications by Year in descending order

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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  | Co-opting regulation bypass repair as a gene-correction strategy for monogenic diseases. <i>Molecular Therapy</i> , 2021, 29, 3274-3292.   | 8.2  | 2         |
| 2  | Calcineurin Activity Is Increased in Charcot-Marie-Tooth 1B Demyelinating Neuropathy. <i>Journal of Neuroscience</i> , 2021, 41, 4536-4548.  | 3.6  | 3         |
| 3  | Genetic connectivity and population structure of African savanna elephants ( <i>Loxodonta africana</i> ) in Tanzania. <i>Ecology and Evolution</i> , 2020, 10, 11069-11089.  | 1.9  | 13        |
| 4  | Ribosome binding protein GCN1 regulates the cell cycle and cell proliferation and is essential for the embryonic development of mice. <i>PLoS Genetics</i> , 2020, 16, e1008693.                                   | 3.5  | 20        |
| 5  | Title is missing!. , 2020, 16, e1008693.   |      | 0         |
| 6  | Title is missing!. , 2020, 16, e1008693.   |      | 0         |
| 7  | Title is missing!. , 2020, 16, e1008693.   |      | 0         |
| 8  | Title is missing!. , 2020, 16, e1008693.   |      | 0         |
| 9  | The protein kinase PERK/EIF2AK3 regulates proinsulin processing not via protein synthesis but by controlling endoplasmic reticulum chaperones. <i>Journal of Biological Chemistry</i> , 2018, 293, 5134-5149.      | 3.4  | 33        |
| 10 | Seeing spots: quantifying mother-offspring similarity and assessing fitness consequences of coat pattern traits in a wild population of giraffes ( <i>Giraffa camelopardalis</i> ). <i>PeerJ</i> , 2018, 6, e5690. | 2.0  | 15        |
| 11 | The PERK arm of the unfolded protein response regulates satellite cell-mediated skeletal muscle regeneration. <i>ELife</i> , 2017, 6, .  | 6.0  | 63        |
| 12 | Evolutionary analysis of vision genes identifies potential drivers of visual differences between giraffe and okapi. <i>PeerJ</i> , 2017, 5, e3145.   | 2.0  | 9         |
| 13 | PERK Regulates Working Memory and Protein Synthesis-Dependent Memory Flexibility. <i>PLoS ONE</i> , 2016, 11, e0162766.  | 2.5  | 17        |
| 14 | Repression of the eIF2 $\alpha$ kinase PERK alleviates mGluR-LTD impairments in a mouse model of Alzheimer's disease. <i>Neurobiology of Aging</i> , 2016, 41, 19-24.  | 3.1  | 70        |
| 15 | Ablation of <i>Perk</i> in Schwann Cells Improves Myelination in the S63del Charcot-Marie-Tooth 1B Mouse. <i>Journal of Neuroscience</i> , 2016, 36, 11350-11361.  | 3.6  | 24        |
| 16 | Giraffe genome sequence reveals clues to its unique morphology and physiology. <i>Nature Communications</i> , 2016, 7, 11519.  | 12.8 | 47        |
| 17 | PERK regulates Gq protein-coupled intracellular Ca <sup>2+</sup> dynamics in primary cortical neurons. <i>Molecular Brain</i> , 2016, 9, 87.   | 2.6  | 16        |
| 18 | Perk Gene Dosage Regulates Glucose Homeostasis by Modulating Pancreatic $\beta$ -Cell Functions. <i>PLoS ONE</i> , 2014, 9, e99684.  | 2.5  | 19        |

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|----|--|------|-----------|
| 19 | Genetic inactivation of PERK signaling in mouse oligodendrocytes: Normal developmental myelination with increased susceptibility to inflammatory demyelination. <i>Glia</i> , 2014, 62, 680-691.                             | 4.9  | 42        |
| 20 | The eIF2 $\gamma$ kinase PERK limits the expression of hippocampal metabotropic glutamate receptor-dependent long-term depression. <i>Learning and Memory</i> , 2014, 21, 298-304.   | 1.3  | 60        |
| 21 | Endoplasmic Reticulum Stress Sensor Protein Kinase $\gamma$ -Like Endoplasmic Reticulum Kinase (PERK) Protects Against Pressure Overload-Induced Heart Failure and Lung Remodeling. <i>Hypertension</i> , 2014, 64, 738-744. | 2.7  | 86        |
| 22 | Suppression of eIF2 $\gamma$ kinases alleviates Alzheimer's disease-related plasticity and memory deficits. <i>Nature Neuroscience</i> , 2013, 16, 1299-1305.  | 14.8 | 486       |
| 23 | 25-Hydroxycholesterol Activates the Integrated Stress Response to Reprogram Transcription and Translation in Macrophages. <i>Journal of Biological Chemistry</i> , 2013, 288, 35812-35823.                                   | 3.4  | 64        |
| 24 | Insulin Secretion and Ca <sup>2+</sup> Dynamics in $\beta$ -Cells Are Regulated by PERK (EIF2AK3) in Concert with Calcineurin. <i>Journal of Biological Chemistry</i> , 2013, 288, 33824-33836.                              | 3.4  | 81        |
| 25 | GCN2 in the Brain Programs PPAR $\gamma$ 2 and Triglyceride Storage in the Liver during Perinatal Development in Response to Maternal Dietary Fat. <i>PLoS ONE</i> , 2013, 8, e75917.  | 2.5  | 10        |
| 26 | Brain-Specific Disruption of the eIF2 $\gamma$ Kinase PERK Decreases ATF4 Expression and Impairs Behavioral Flexibility. <i>Cell Reports</i> , 2012, 1, 676-688.   | 6.4  | 126       |
| 27 | Hyperthermia Induces the ER Stress Pathway. <i>PLoS ONE</i> , 2011, 6, e23740.   | 2.5  | 53        |
| 28 | Endoplasmic Reticulum Stress Response Mediated by the PERK-eIF2 $\gamma$ -ATF4 Pathway Is Involved in Osteoblast Differentiation Induced by BMP2. <i>Journal of Biological Chemistry</i> , 2011, 286, 4809-4818.             | 3.4  | 229       |
| 29 | PERK (EIF2AK3) Regulates Proinsulin Trafficking and Quality Control in the Secretory Pathway. <i>Diabetes</i> , 2010, 59, 1937-1947.   | 0.6  | 116       |
| 30 | PERK in beta cell biology and insulin biogenesis. <i>Trends in Endocrinology and Metabolism</i> , 2010, 21, 714-721.   | 7.1  | 61        |
| 31 | GCN2 Protein Kinase Is Required to Activate Amino Acid Deprivation Responses in Mice Treated with the Anti-cancer Agent L-Asparaginase. <i>Journal of Biological Chemistry</i> , 2009, 284, 32742-32749.                     | 3.4  | 90        |
| 32 | Sleeping Beauty, Awake! Regulation of Insulin Gene Expression by Methylation of Histone H3. <i>Diabetes</i> , 2009, 58, 28-29.   | 0.6  | 4         |
| 33 | eIF2 $\gamma$ kinases GCN2 and PERK modulate transcription and translation of distinct sets of mRNAs in mouse liver. <i>Physiological Genomics</i> , 2009, 38, 328-341.  | 2.3  | 66        |
| 34 | Acute ablation of PERK results in ER dysfunctions followed by reduced insulin secretion and cell proliferation. <i>BMC Cell Biology</i> , 2009, 10, 61.  | 3.0  | 46        |
| 35 | PERK Regulates the Proliferation and Development of Insulin-Secreting Beta-Cell Tumors in the Endocrine Pancreas of Mice. <i>PLoS ONE</i> , 2009, 4, e8008.  | 2.5  | 50        |
| 36 | PERK is essential for neonatal skeletal development to regulate osteoblast proliferation and differentiation. <i>Journal of Cellular Physiology</i> , 2008, 217, 693-707.  | 4.1  | 110       |

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|----|---|------|-----------|
| 37 | 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       |
| 38 | 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        |
| 39 | The GCN2 eIF2 $\gamma$ Kinase Regulates Fatty-Acid Homeostasis in the Liver during Deprivation of an Essential Amino Acid. Cell Metabolism, 2007, 5, 103-114.   | 16.2 | 243       |
| 40 | Translational Control and the Unfolded Protein Response. Antioxidants and Redox Signaling, 2007, 9, 2357-2372.  | 5.4  | 268       |
| 41 | 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        |
| 42 | Expansion and evolution of insect GMC oxidoreductases. BMC Evolutionary Biology, 2007, 7, 75.   | 3.2  | 58        |
| 43 | PERK EIF2AK3 control of pancreatic $\beta$ cell differentiation and proliferation is required for postnatal glucose homeostasis. Cell Metabolism, 2006, 4, 491-497.   | 16.2 | 247       |
| 44 | Tryptophan catabolism generates autoimmune-preventive regulatory T cells. Transplant Immunology, 2006, 17, 58-60.   | 1.2  | 97        |
| 45 | 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       |
| 46 | The Combined Effects of Tryptophan Starvation and Tryptophan Catabolites Down-Regulate T Cell Receptor $\zeta$ -Chain and Induce a Regulatory Phenotype in Naive T Cells. Journal of Immunology, 2006, 176, 6752-6761.  | 0.8  | 943       |
| 47 | PERK (eIF2 $\gamma$ kinase) is required to activate the stress-activated MAPKs and induce the expression of immediate-early genes upon disruption of ER calcium homeostasis. Biochemical Journal, 2006, 393, 201-209.   | 3.7  | 126       |
| 48 | PERK is responsible for the increased phosphorylation of eIF2 $\gamma$ and the severe inhibition of protein synthesis after transient global brain ischemia. Journal of Neurochemistry, 2005, 94, 1235-1242.            | 3.9  | 61        |
| 49 | Proinsulin Disulfide Maturation and Misfolding in the Endoplasmic Reticulum. Journal of Biological Chemistry, 2005, 280, 13209-13212.   | 3.4  | 98        |
| 50 | Uncharged tRNA and Sensing of Amino Acid Deficiency in Mammalian Piriform Cortex. Science, 2005, 307, 1776-1778.  | 12.6 | 287       |
| 51 | 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       |
| 52 | 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       |
| 53 | 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        |
| 54 | Phosphorylation of the $\gamma$ Subunit of Eukaryotic Initiation Factor 2 Is Required for Activation of NF- $\kappa$ B in Response to Diverse Cellular Stresses. Molecular and Cellular Biology, 2003, 23, 5651-5663.   | 2.3  | 390       |

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|----|--|------|-----------|
| 55 | PERK eIF2 $\alpha$ Kinase Regulates Neonatal Growth by Controlling the Expression of Circulating Insulin-Like Growth Factor-I Derived from the Liver. <i>Endocrinology</i> , 2003, 144, 3505-3513.   | 2.8  | 50        |
| 56 | The PERK Eukaryotic Initiation Factor 2 $\alpha$ Kinase Is Required for the Development of the Skeletal System, Postnatal Growth, and the Function and Viability of the Pancreas. <i>Molecular and Cellular Biology</i> , 2002, 22, 3864-3874. | 2.3  | 537       |
| 57 | The GCN2 eIF2 $\alpha$ Kinase Is Required for Adaptation to Amino Acid Deprivation in Mice. <i>Molecular and Cellular Biology</i> , 2002, 22, 6681-6688.   | 2.3  | 395       |
| 58 | Brain ischemia and reperfusion activates the eukaryotic initiation factor 2 $\alpha$ kinase, PERK. <i>Journal of Neurochemistry</i> , 2001, 77, 1418-1421.   | 3.9  | 209       |
| 59 | Complex Organization of Promoter and Enhancer Elements Regulate the Tissue- and Developmental Stage-Specific Expression of the <i>Drosophila melanogaster</i> Gld Gene. <i>Genetics</i> , 2001, 157, 699-715.                                  | 2.9  | 12        |
| 60 | A Mammalian Homologue of GCN2 Protein Kinase Important for Translational Control by Phosphorylation of Eukaryotic Initiation Factor-2 $\alpha$ . <i>Genetics</i> , 2000, 154, 787-801.   | 2.9  | 251       |
| 61 | Isolation of the Gene Encoding the <i>Drosophila melanogaster</i> Homolog of the <i>Saccharomyces cerevisiae</i> GCN2 eIF-2 $\alpha$ Kinase. <i>Genetics</i> , 1998, 149, 1495-1509.   | 2.9  | 56        |
| 62 | A Somatic Reproductive Organ Enhancer Complex Activates Expression in both the Developing and the Mature <i>Drosophila</i> Reproductive Tract. <i>Developmental Biology</i> , 1996, 180, 311-323.  | 2.0  | 3         |
| 63 | Heat Shock Effects on Phosphorylation of Protein Synthesis Initiation Factor Proteins eIF-4E and eIF-2 $\alpha$ in <i>Drosophila</i> . <i>Biochemistry</i> , 1995, 34, 2985-2997.  | 2.5  | 37        |
| 64 | Correlated evolution of the cis-acting regulatory elements and developmental expression of the <i>Drosophila</i> Gld gene in seven species from the subgroup <i>melanogaster</i> . <i>Genesis</i> , 1994, 15, 38-50.                           | 2.1  | 24        |
| 65 | Isolation and characterization of the <i>Drosophila melanogaster</i> eIF-2 $\alpha$ gene encoding the alpha subunit of translation initiation factor eIF-2. <i>Gene</i> , 1994, 140, 239-242.  | 2.2  | 17        |
| 66 | Isolation and characterization of the <i>Drosophila melanogaster</i> gene encoding translation-initiation factor eIF-2 $\alpha$ . <i>Gene</i> , 1994, 142, 271-274.  | 2.2  | 14        |
| 67 | Tissue-specific regulatory elements of the <i>Drosophila</i> Gld gene. <i>Mechanisms of Development</i> , 1993, 42, 3-13.  | 1.7  | 10        |
| 68 | GMC oxidoreductases. <i>Journal of Molecular Biology</i> , 1992, 223, 811-814.   | 4.2  | 245       |
| 69 | The <i>Drosophila melanogaster</i> stranded at second (sas) gene encodes a putative epidermal cell surface receptor required for larval development. <i>Developmental Biology</i> , 1992, 151, 431-445.  | 2.0  | 35        |
| 70 | Transgenic animal studies on the evolution of genetic regulatory circuitries. <i>BioEssays</i> , 1992, 14, 237-244.  | 2.5  | 33        |
| 71 | Organ-specific patterns of gene expression in the reproductive tract of <i>Drosophila</i> are regulated by the sex-determination genes. <i>Developmental Biology</i> , 1991, 146, 451-460.   | 2.0  | 19        |
| 72 | Eukaryotic start and stop translation sites. <i>Nucleic Acids Research</i> , 1991, 19, 3185-3192.  | 14.5 | 631       |

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|----|--|------|-----------|
| 73 | Genomic DNA analysis of the estrogen receptor gene in breast cancer. <i>Breast Cancer Research and Treatment</i> , 1989, 14, 57-64.  | 2.5  | 62        |
| 74 | Ecdysteroid regulation of glucose dehydrogenase and alcohol dehydrogenase gene expression in <i>Drosophila melanogaster</i> . <i>Developmental Biology</i> , 1989, 135, 66-73. | 2.0  | 39        |
| 75 | Evolution of Developmental Regulation. <i>American Naturalist</i> , 1989, 134, 459-473.  | 2.1  | 7         |
| 76 | The YYRR box: a conserved dipyrimidine-dipurine sequence element in <i>Drosophila</i> and other eukaryotes. <i>Nucleic Acids Research</i> , 1988, 16, 3375-3390.               | 14.5 | 7         |
| 77 | Isolation of genes encoding proteins of immunological importance. <i>Methods in Enzymology</i> , 1987, 150, 746-754.   | 1.0  | 0         |
| 78 | Comparison of the consensus sequence flanking translational start sites in <i>Drosophila</i> and vertebrates. <i>Nucleic Acids Research</i> , 1987, 15, 1353-1361.             | 14.5 | 1,064     |
| 79 | Detection of estrogen receptor mRNA in human uterus. <i>Molecular and Cellular Endocrinology</i> , 1987, 52, 235-242.  | 3.2  | 12        |
| 80 | Combinatorial control of structural genes in <i>Drosophila</i> : Solutions that work for the animal. <i>BioEssays</i> , 1987, 7, 103-107.                                      | 2.5  | 14        |
| 81 | Chronic granulomatous disease. <i>Nature</i> , 1987, 325, 21-21.   | 27.8 | 2         |
| 82 | A REHABILITATION OF THE GENETIC MAP OF THE 84B-D REGION IN <i>DROSOPHILA MELANOGASTER</i> . <i>Genetics</i> , 1986, 114, 111-123.  | 2.9  | 49        |
| 83 | Response of the G6pd and Pgd polymorphisms in <i>Drosophila melanogaster</i> to dietary selection. <i>Genetica</i> , 1984, 63, 81-83.  | 1.1  | 1         |
| 84 | The Developmental Genetic Basis of Organismal Evolution. <i>Evolution; International Journal of Organic Evolution</i> , 1983, 37, 1321.  | 2.3  | 0         |
| 85 | THE DEVELOPMENTAL GENETIC BASIS OF ORGANISMAL EVOLUTION. <i>Evolution; International Journal of Organic Evolution</i> , 1983, 37, 1321-1322.                                   | 2.3  | 0         |
| 86 | THE RESPONSE OF ENZYME POLYMORPHISMS TO DEVELOPMENTAL RATE SELECTION IN <i>DROSOPHILA MELANOGASTER</i> . <i>Genetics</i> , 1983, 105, 105-113.                                 | 2.9  | 37        |
| 87 | Dynamics of Correlated Genetic Systems. VII. Demographic Aspects of Sex-Linked Transmission. <i>American Naturalist</i> , 1982, 120, 108-118.                                  | 2.1  | 6         |
| 88 | Multigenic Response to Ethanol in <i>Drosophila melanogaster</i> . <i>Evolution; International Journal of Organic Evolution</i> , 1981, 35, 1.                                 | 2.3  | 20        |
| 89 | MULTIGENIC RESPONSE TO ETHANOL IN <i>DROSOPHILA MELANOGASTER</i> . <i>Evolution; International Journal of Organic Evolution</i> , 1981, 35, 1-10.                              | 2.3  | 87        |
| 90 | TEMPORAL STABILITY OF ALLOZYME FREQUENCIES IN A NATURAL POPULATION OF <i>DROSOPHILA MELANOGASTER</i> . <i>Genetics</i> , 1981, 98, 613-623.                                    | 2.9  | 36        |

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|----|---|-----|-----------|
| 91 | Genetics of male-specific glucose oxidase and the identification of other unusual hexose enzymes in <i>Drosophila melanogaster</i> . <i>Biochemical Genetics</i> , 1980, 18, 929-937. | 1.7 | 40        |
| 92 | Preference for ethanol in <i>Drosophila melanogaster</i> associated with the alcohol dehydrogenase polymorphism. <i>Behavior Genetics</i> , 1979, 9, 359-365.                         | 2.1 | 66        |