

Howard Robert Horvitz

List of Publications by Year in descending order

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Version: 2024-02-01

102
papers

25,771
citations

28190

55
h-index

32761

100
g-index

108
all docs

108
docs citations

108
times ranked

20409
citing authors

#	ARTICLE	IF	CITATIONS
1	Mutations in Cu/Zn superoxide dismutase gene are associated with familial amyotrophic lateral sclerosis. <i>Nature</i> , 1993, 362, 59-62.	13.7	6,331
2	The 21-nucleotide let-7 RNA regulates developmental timing in <i>Caenorhabditis elegans</i> . <i>Nature</i> , 2000, 403, 901-906.	13.7	4,315
3	Odorant-selective genes and neurons mediate olfaction in <i>C. elegans</i> . <i>Cell</i> , 1993, 74, 515-527.	13.5	1,081
4	EGG-LAYING DEFECTIVE MUTANTS OF THE NEMATODE <i>CAENORHABDITIS ELEGANS</i> . <i>Genetics</i> , 1983, 104, 619-647.	1.2	722
5	IDENTIFICATION AND CHARACTERIZATION OF 22 GENES THAT AFFECT THE VULVAL CELL LINEAGES OF THE NEMATODE <i>CAENORHABDITIS ELEGANS</i> . <i>Genetics</i> , 1985, 110, 17-72.	1.2	562
6	Novel cysteine-rich motif and homeodomain in the product of the <i>Caenorhabditis elegans</i> cell lineage gene <i>lin-11</i> . <i>Nature</i> , 1990, 344, 876-879.	13.7	548
7	Inhibition of the <i>Caenorhabditis elegans</i> cell-death protease CED-3 by a CED-3 cleavage site in baculovirus p35 protein. <i>Nature</i> , 1995, 377, 248-251.	13.7	486
8	A uniform genetic nomenclature for the nematode <i>Caenorhabditis elegans</i> . <i>Molecular Genetics and Genomics</i> , 1979, 175, 129-133.	2.4	470
9	A genetic pathway for the development of the <i>Caenorhabditis elegans</i> HSN motor neurons. <i>Nature</i> , 1988, 336, 638-646.	13.7	466
10	The GABAergic nervous system of <i>Caenorhabditis elegans</i> . <i>Nature</i> , 1993, 364, 337-341.	13.7	434
11	Most <i>Caenorhabditis elegans</i> microRNAs Are Individually Not Essential for Development or Viability. <i>PLoS Genetics</i> , 2007, 3, e215.	1.5	412
12	<i>Caenorhabditis elegans</i> <i>ras</i> gene <i>let-60</i> acts as a switch in the pathway of vulval induction. <i>Nature</i> , 1990, 348, 503-509.	13.7	408
13	ISOLATION AND GENETIC CHARACTERIZATION OF CELL-LINEAGE MUTANTS OF THE NEMATODE <i>CAENORHABDITIS ELEGANS</i> . <i>Genetics</i> , 1980, 96, 435-454.	1.2	396
14	CED-2/CrkII and CED-10/Rac control phagocytosis and cell migration in <i>Caenorhabditis elegans</i> . <i>Nature Cell Biology</i> , 2000, 2, 131-136.	4.6	388
15	<i>C. elegans</i> phagocytosis and cell-migration protein CED-5 is similar to human DOCK180. <i>Nature</i> , 1998, 392, 501-504.	13.7	346
16	A genetic pathway for the specification of the vulval cell lineages of <i>Caenorhabditis elegans</i> . <i>Nature</i> , 1987, 326, 259-267.	13.7	337
17	Effects of starvation and neuroactive drugs on feeding in <i>Caenorhabditis elegans</i> . <i>The Journal of Experimental Zoology</i> , 1990, 253, 263-270.	1.4	335
18	EAT-4, a Homolog of a Mammalian Sodium-Dependent Inorganic Phosphate Cotransporter, Is Necessary for Glutamatergic Neurotransmission in <i>Caenorhabditis elegans</i> . <i>Journal of Neuroscience</i> , 1999, 19, 159-167.	1.7	328

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19	Phagocytosis promotes programmed cell death in <i>C. elegans</i> . <i>Nature</i> , 2001, 412, 198-202.	13.7	327
20	Tyramine Functions Independently of Octopamine in the <i>Caenorhabditis elegans</i> Nervous System. <i>Neuron</i> , 2005, 46, 247-260.	3.8	327
21	Defective recycling of synaptic vesicles in synaptotagmin mutants of <i>Caenorhabditis elegans</i> . <i>Nature</i> , 1995, 378, 196-199.	13.7	303
22	Genes required for GABA function in <i>Caenorhabditis elegans</i> . <i>Nature</i> , 1993, 364, 334-337.	13.7	294
23	Multiple intercellular signalling systems control the development of the <i>Caenorhabditis elegans</i> vulva. <i>Nature</i> , 1991, 351, 535-541.	13.7	254
24	Control of type-D GABAergic neuron differentiation by <i>C. elegans</i> UNC-30 homeodomain protein. <i>Nature</i> , 1994, 372, 780-783.	13.7	247
25	Mutations in Synaptojanin Disrupt Synaptic Vesicle Recycling. <i>Journal of Cell Biology</i> , 2000, 150, 589-600.	2.3	247
26	THE ENGULFMENT PROCESS OF PROGRAMMED CELL DEATH IN <i>CAENORHABDITIS ELEGANS</i> . <i>Annual Review of Cell and Developmental Biology</i> , 2004, 20, 193-221.	4.0	229
27	<i>unc-93(e1500)</i> : A BEHAVIORAL MUTANT OF <i>CAENORHABDITIS ELEGANS</i> THAT DEFINES A GENE WITH A WILD-TYPE NULL PHENOTYPE. <i>Genetics</i> , 1980, 96, 147-164.	1.2	228
28	Translocation of <i>C. elegans</i> CED-4 to Nuclear Membranes During Programmed Cell Death. <i>Science</i> , 2000, 287, 1485-1489.	6.0	221
29	Human C9ORF72 Hexanucleotide Expansion Reproduces RNA Foci and Dipeptide Repeat Proteins but Not Neurodegeneration in BAC Transgenic Mice. <i>Neuron</i> , 2015, 88, 902-909.	3.8	219
30	MOD-1 is a serotonin-gated chloride channel that modulates locomotory behaviour in <i>C. elegans</i> . <i>Nature</i> , 2000, 408, 470-475.	13.7	212
31	MUTATIONS WITH DOMINANT EFFECTS ON THE BEHAVIOR AND MORPHOLOGY OF THE NEMATODE <i>CAENORHABDITIS ELEGANS</i> . <i>Genetics</i> , 1986, 113, 821-852.	1.2	209
32	Three <i>C. elegans</i> Rac proteins and several alternative Rac regulators control axon guidance, cell migration and apoptotic cell phagocytosis. <i>Development (Cambridge)</i> , 2001, 128, 4475-4488.	1.2	197
33	Activation of <i>C. elegans</i> cell death protein CED-9 by an amino-acid substitution in a domain conserved in Bcl-2. <i>Nature</i> , 1994, 369, 318-320.	13.7	172
34	Patterning of the <i>Caenorhabditis elegans</i> head region by the Pax-6 family member <i>vab-3</i> . <i>Nature</i> , 1995, 377, 52-55.	13.7	168
35	Worms, Life, and Death (Nobel Lecture). <i>ChemBioChem</i> , 2003, 4, 697-711.	1.3	164
36	Transcriptional regulator of programmed cell death encoded by <i>Caenorhabditis elegans</i> gene <i>ces-2</i> . <i>Nature</i> , 1996, 382, 545-547.	13.7	163

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37	Mutations in the <i>Caenorhabditis elegans</i> Serotonin Reuptake Transporter MOD-5 Reveal Serotonin-Dependent and -Independent Activities of Fluoxetine. <i>Journal of Neuroscience</i> , 2001, 21, 5871-5884.	1.7	150
38	Two <i>C. elegans</i> histone methyltransferases repress <i>lin-3</i> EGF transcription to inhibit vulval development. <i>Development (Cambridge)</i> , 2007, 134, 2991-2999.	1.2	142
39	<i>Caenorhabditis elegans</i> CED-9 protein is a bifunctional cell-death inhibitor. <i>Nature</i> , 1997, 390, 305-308.	13.7	124
40	Some <i>C. elegans</i> class B synthetic multivulva proteins encode a conserved LIN-35 Rb-containing complex distinct from a NuRD-like complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 16782-16787.	3.3	123
41	FMRamide neuropeptides and acetylcholine synergistically inhibit egg-laying by <i>C. elegans</i> . <i>Nature Neuroscience</i> , 2008, 11, 1168-1176.	7.1	118
42	Light and Hydrogen Peroxide Inhibit <i>C. elegans</i> Feeding through Gustatory Receptor Orthologs and Pharyngeal Neurons. <i>Neuron</i> , 2015, 85, 804-818.	3.8	118
43	Mutations in the glutamate transporter EAAT2 gene do not cause abnormal EAAT2 transcripts in amyotrophic lateral sclerosis. <i>Annals of Neurology</i> , 1998, 43, 645-653.	2.8	109
44	Gain-of-Function Mutations in the <i>Caenorhabditis elegans</i> <i>lin-1</i> ETS Gene Identify a C-Terminal Regulatory Domain Phosphorylated by ERK MAP Kinase. <i>Genetics</i> , 1998, 149, 1809-1822.	1.2	106
45	Acyl-CoA Dehydrogenase Drives Heat Adaptation by Sequestering Fatty Acids. <i>Cell</i> , 2015, 161, 1152-1163.	13.5	105
46	CYSL-1 Interacts with the O ₂ -Sensing Hydroxylase EGL-9 to Promote H ₂ S-Modulated Hypoxia-Induced Behavioral Plasticity in <i>C. elegans</i> . <i>Neuron</i> , 2012, 73, 925-940.	3.8	104
47	Superoxide Dismutase Concentration and Activity in Familial Amyotrophic Lateral Sclerosis. <i>Journal of Neurochemistry</i> , 1995, 64, 2366-2369.	2.1	101
48	Ligand-Gated Chloride Channels Are Receptors for Biogenic Amines in <i>C. elegans</i> . <i>Science</i> , 2009, 325, 96-100.	6.0	100
49	<i>sup-9</i> , <i>sup-10</i> , and <i>unc-93</i> May Encode Components of a Two-Pore K ⁺ Channel that Coordinates Muscle Contraction in <i>Caenorhabditis elegans</i> . <i>Journal of Neuroscience</i> , 2003, 23, 9133-9145.	1.7	89
50	Axons Degenerate in the Absence of Mitochondria in <i>C. elegans</i> . <i>Current Biology</i> , 2014, 24, 760-765.	1.8	86
51	A C9orf72 ALS/FTD Ortholog Acts in Endolysosomal Degradation and Lysosomal Homeostasis. <i>Current Biology</i> , 2018, 28, 1522-1535.e5.	1.8	75
52	NOBEL LECTURE: Worms, Life and Death. <i>Bioscience Reports</i> , 2003, 23, 239-303.	1.1	72
53	The <i>Caenorhabditis elegans</i> vulval morphogenesis gene <i>sqv-4</i> encodes a UDP-glucose dehydrogenase that is temporally and spatially regulated. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2002, 99, 14224-14229.	3.3	70
54	<i>C. ELEGANS unc-105</i> MUTATIONS AFFECT MUSCLE AND ARE SUPPRESSED BY OTHER MUTATIONS THAT AFFECT MUSCLE. <i>Genetics</i> , 1986, 113, 853-867.	1.2	67

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55	Dopamine Signaling Is Essential for Precise Rates of Locomotion by <i>C. elegans</i> . PLoS ONE, 2012, 7, e38649.	1.1	67
56	Insulin-like signalling to the maternal germline controls progeny response to osmotic stress. Nature Cell Biology, 2017, 19, 252-257.	4.6	65
57	<i>C. elegans</i> ISWI and NURF301 antagonize an Rb-like pathway in the determination of multiple cell fates. Development (Cambridge), 2006, 133, 2695-2704.	1.2	61
58	Programmed elimination of cells by caspase-independent cell extrusion in <i>C. elegans</i> . Nature, 2012, 488, 226-230.	13.7	60
59	Distinct Neural Circuits Control Rhythm Inhibition and Spitting by the Myogenic Pharynx of <i>C. elegans</i> . Current Biology, 2015, 25, 2075-2089.	1.8	60
60	An Sp1 transcription factor coordinates caspase-dependent and -independent apoptotic pathways. Nature, 2013, 500, 354-358.	13.7	54
61	Identification and Classification of Genes That Act Antagonistically to let-60 Ras Signaling in <i>Caenorhabditis elegans</i> Vulval Development. Genetics, 2006, 173, 709-726.	1.2	50
62	Chromosome-Biased Binding and Gene Regulation by the <i>Caenorhabditis elegans</i> DRM Complex. PLoS Genetics, 2011, 7, e1002074.	1.5	50
63	New Genes That Interact With <i>lin-35 Rb</i> to Negatively Regulate the <i>let-60 ras</i> Pathway in <i>Caenorhabditis elegans</i> . Genetics, 2003, 164, 135-151.	1.2	44
64	Abl Kinase Inhibits the Engulfment of Apoptotic Cells in <i>Caenorhabditis elegans</i> . PLoS Biology, 2009, 7, e1000099.	2.6	43
65	Both the Caspase CSP-1 and a Caspase-Independent Pathway Promote Programmed Cell Death in Parallel to the Canonical Pathway for Apoptosis in <i>Caenorhabditis elegans</i> . PLoS Genetics, 2013, 9, e1003341.	1.5	43
66	DOMINANT SUPPRESSORS OF A MUSCLE MUTANT DEFINE AN ESSENTIAL GENE OF CAENORHABDITIS ELEGANS. Genetics, 1982, 101, 211-225.	1.2	43
67	Six and Eya promote apoptosis through direct transcriptional activation of the proapoptotic BH3-only gene <i>egl-1</i> in <i>Caenorhabditis elegans</i> . Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15479-15484.	3.3	40
68	The <i>Caenorhabditis elegans</i> Synthetic Multivulva Genes Prevent Ras Pathway Activation by Tightly Repressing Global Ectopic Expression of <i>lin-3</i> EGF. PLoS Genetics, 2011, 7, e1002418.	1.5	38
69	<i>C. elegans</i> : Sequence to Biology. , 1998, 282, 2011-2011.		37
70	LIN-61, One of Two <i>Caenorhabditis elegans</i> Malignant-Brain-Tumor-Repeat-Containing Proteins, Acts With the DRM and NuRD-Like Protein Complexes in Vulval Development but Not in Certain Other Biological Processes. Genetics, 2007, 176, 255-271.	1.2	36
71	MAB-10/NAB acts with LIN-29/EGR to regulate terminal differentiation and the transition from larva to adult in <i>C. elegans</i> . Development (Cambridge), 2011, 138, 4051-4062.	1.2	36
72	A VISIBLE ALLELE OF THE MUSCLE GENE <i>sup-10 X</i> OF <i>C. ELEGANS</i> . Genetics, 1986, 113, 63-72.	1.2	35

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73	DPL-1 DP, LIN-35 Rb and EFL-1 E2F Act With the MCD-1 Zinc-Finger Protein to Promote Programmed Cell Death in <i>Caenorhabditis elegans</i> . <i>Genetics</i> , 2007, 175, 1719-1733.	1.2	34
74	Cytochrome P450 Drives a HIF-Regulated Behavioral Response to Reoxygenation by <i>C. elegans</i> . <i>Science</i> , 2013, 341, 554-558.	6.0	32
75	The short coiled-coil domain-containing protein UNC-69 cooperates with UNC-76 to regulate axonal outgrowth and normal presynaptic organization in <i>Caenorhabditis elegans</i> . <i>Journal of Biology</i> , 2006, 5, 9.	2.7	28
76	Mass spectrometric evidence for neuropeptide-amidating enzymes in <i>C. elegans</i> . <i>Journal of Biological Chemistry</i> , 2018, 293, 6052-6063.	1.6	28
77	The <i>Caenorhabditis elegans</i> Gene <i>mfap-1</i> Encodes a Nuclear Protein That Affects Alternative Splicing. <i>PLoS Genetics</i> , 2012, 8, e1002827.	1.5	27
78	The Conserved VPS-50 Protein Functions in Dense-Core Vesicle Maturation and Acidification and Controls Animal Behavior. <i>Current Biology</i> , 2016, 26, 862-871.	1.8	25
79	Both the apoptotic suicide pathway and phagocytosis are required for a programmed cell death in <i>Caenorhabditis elegans</i> . <i>BMC Biology</i> , 2016, 14, 39.	1.7	24
80	Refined mapping and characterization of the recessive familial amyotrophic lateral sclerosis locus (<i>FTLD</i>) in <i>C. elegans</i> . <i>PLoS Genetics</i> , 2014, 10, e1004512.	0.7	23
81	The Translational Regulators GCN-1 and ABCF-3 Act Together to Promote Apoptosis in <i>C. elegans</i> . <i>PLoS Genetics</i> , 2014, 10, e1004512.	1.5	22
82	<i>C. elegans</i> discriminates colors to guide foraging. <i>Science</i> , 2021, 371, 1059-1063.	6.0	22
83	Otx-dependent expression of proneural bHLH genes establishes a neuronal bilateral asymmetry in <i>C. elegans</i> . <i>Development (Cambridge)</i> , 2010, 137, 4017-4027.	1.2	21
84	Multiple Levels of Redundant Processes Inhibit <i>Caenorhabditis elegans</i> Vulval Cell Fates. <i>Genetics</i> , 2008, 179, 2001-2012.	1.2	20
85	Replication stress promotes cell elimination by extrusion. <i>Nature</i> , 2021, 593, 591-596.	13.7	20
86	<i>Caenorhabditis elegans</i> Genes Required for the Engulfment of Apoptotic Corpses Function in the Cytotoxic Cell Deaths Induced by Mutations in <i>lin-24</i> and <i>lin-33</i> . <i>Genetics</i> , 2008, 179, 403-417.	1.2	19
87	Mutations in the <i>Caenorhabditis elegans</i> U2AF Large Subunit UAF-1 Alter the Choice of a 3' Splice Site In Vivo. <i>PLoS Genetics</i> , 2009, 5, e1000708.	1.5	19
88	<i>lin-8</i> , Which Antagonizes <i>Caenorhabditis elegans</i> Ras-Mediated Vulval Induction, Encodes a Novel Nuclear Protein That Interacts With the LIN-35 Rb Protein. <i>Genetics</i> , 2005, 171, 1017-1031.	1.2	18
89	The CDK8 Complex and Proneural Proteins Together Drive Neurogenesis from a Mesodermal Lineage. <i>Current Biology</i> , 2017, 27, 661-672.	1.8	18
90	Neurohormonal signaling via a sulfotransferase antagonizes insulin-like signaling to regulate a <i>Caenorhabditis elegans</i> stress response. <i>Nature Communications</i> , 2018, 9, 5152.	5.8	17

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91	Hypoxia-inducible factor cell non-autonomously regulates <i>C. elegans</i> stress responses and behavior via a nuclear receptor. <i>ELife</i> , 2018, 7, .	2.8	16
92	A <i>Caenorhabditis elegans</i> protein with a PRDM9-like SET domain localizes to chromatin-associated foci and promotes spermatocyte gene expression, sperm production and fertility. <i>PLoS Genetics</i> , 2018, 14, e1007295.	1.5	14
93	The LIN-15A and LIN-56 Transcriptional Regulators Interact to Negatively Regulate EGF/Ras Signaling in <i>Caenorhabditis elegans</i> Vulval Cell-Fate Determination. <i>Genetics</i> , 2011, 187, 803-815.	1.2	10
94	Presumptive TRP channel CED-11 promotes cell volume decrease and facilitates degradation of apoptotic cells in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 8806-8811.	3.3	10
95	H3.3 Nucleosome Assembly Mutants Display a Late-Onset Maternal Effect. <i>Current Biology</i> , 2020, 30, 2343-2352.e3.	1.8	10
96	The <i>Caenorhabditis elegans</i> Iodotyrosine Deiodinase Ortholog SUP-18 Functions through a Conserved Channel SC-Box to Regulate the Muscle Two-Pore Domain Potassium Channel SUP-9. <i>PLoS Genetics</i> , 2014, 10, e1004175.	1.5	9
97	Genetic Control of Programmed Cell Death in <i>C. Elegans</i> . <i>Scientific World Journal, The</i> , 2001, 1, 137-137.	0.8	6
98	An hourglass circuit motif transforms a motor program via subcellularly localized muscle calcium signaling and contraction. <i>ELife</i> , 2021, 10, .	2.8	5
99	The transcriptional corepressor CTBP-1 acts with the SOX family transcription factor EGL-13 to maintain AIA interneuron cell identity in <i>Caenorhabditis elegans</i> . <i>ELife</i> , 2022, 11, .	2.8	3
100	Stanley J. Korsmeyer (1950–2005). <i>Nature</i> , 2005, 435, 161-161.	13.7	2
101	Activity-Dependent Regulation of the Proapoptotic BH3-Only Gene <i>egl-1</i> in a Living Neuron Pair in <i>Caenorhabditis elegans</i> . <i>G3: Genes, Genomes, Genetics</i> , 2019, 9, 3703-3714.	0.8	2
102	Most <i>Caenorhabditis elegans</i> microRNAs are individually not essential for development or viability. <i>PLoS Genetics</i> , 2005, preprint, e215.	1.5	0