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	The transcriptional corepressor CTBP-1 acts with the SOX family transcription factor EGL-13 to maintain AIA interneuron cell identity in Caenorhabditis elegans. ELife, 2022, 11, .	2.8	3
2	C. elegans discriminates colors to guide foraging. Science, 2021, 371, 1059-1063.	6.0	22
3	Replication stress promotes cell elimination by extrusion. Nature, 2021, 593, 591-596.	13.7	20
4	An hourglass circuit motif transforms a motor program via subcellularly localized muscle calcium signaling and contraction. ELife, 2021, 10, .	2.8	5
5	H3.3 Nucleosome Assembly Mutants Display a Late-Onset Maternal Effect. Current Biology, 2020, 30, 2343-2352.e3.	1.8	10
6	Activity-Dependent Regulation of the Proapoptotic BH3-Only Geneegl-1in a Living Neuron Pair inCaenorhabditis elegans. G3: Genes, Genomes, Genetics, 2019, 9, 3703-3714.	0.8	2
7	Mass spectrometric evidence for neuropeptide-amidating enzymes in. Journal of Biological Chemistry, 2018, 293, 6052-6063.	1.6	28
8	A C9orf72 ALS/FTD Ortholog Acts in Endolysosomal Degradation and Lysosomal Homeostasis. Current Biology, 2018, 28, 1522-1535.e5.	1.8	75
9	Neurohormonal signaling via a sulfotransferase antagonizes insulin-like signaling to regulate a Caenorhabditis elegans stress response. Nature Communications, 2018, 9, 5152.	5.8	17
10	Hypoxia-inducible factor cell non-autonomously regulates C. elegans stress responses and behavior via a nuclear receptor. ELife, 2018, 7, .	2.8	16
11	A Caenorhabditis elegans protein with a PRDM9-like SET domain localizes to chromatin-associated foci and promotes spermatocyte gene expression, sperm production and fertility. PLoS Genetics, 2018, 14, e1007295.	1.5	14
12	The CDK8 Complex and Proneural Proteins Together Drive Neurogenesis from a Mesodermal Lineage. Current Biology, 2017, 27, 661-672.	1.8	18
13	Insulin-like signalling to the maternal germline controls progeny response to osmotic stress. Nature Cell Biology, 2017, 19, 252-257.	4.6	65
14	Presumptive TRP channel CED-11 promotes cell volume decrease and facilitates degradation of apoptotic cells in Caenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8806-8811.	3.3	10
15	Both the apoptotic suicide pathway and phagocytosis are required for a programmed cell death in Caenorhabditis elegans. BMC Biology, 2016, 14, 39.	1.7	24
16	The Conserved VPS-50 Protein Functions in Dense-Core Vesicle Maturation and Acidification and Controls Animal Behavior. Current Biology, 2016, 26, 862-871.	1.8	25
17	Acyl-CoA Dehydrogenase Drives Heat Adaptation by Sequestering Fatty Acids. Cell, 2015, 161, 1152-1163.	13.5	105
18	Light and Hydrogen Peroxide Inhibit C.Âelegans Feeding through Gustatory Receptor Orthologs and Pharyngeal Neurons. Neuron, 2015, 85, 804-818.	3.8	118

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19	Distinct Neural Circuits Control Rhythm Inhibition and Spitting by the Myogenic Pharynx of C.Âelegans. Current Biology, 2015, 25, 2075-2089.	1.8	60
20	Human C9ORF72 Hexanucleotide Expansion Reproduces RNA Foci and Dipeptide Repeat Proteins but Not Neurodegeneration in BAC Transgenic Mice. Neuron, 2015, 88, 902-909.	3.8	219
21	The Translational Regulators GCN-1 and ABCF-3 Act Together to Promote Apoptosis in C. elegans. PLoS Genetics, 2014, 10, e1004512.	1.5	22
22	The Caenorhabditis elegans Iodotyrosine Deiodinase Ortholog SUP-18 Functions through a Conserved Channel SC-Box to Regulate the Muscle Two-Pore Domain Potassium Channel SUP-9. PLoS Genetics, 2014, 10, e1004175.	1.5	9
23	Axons Degenerate in the Absence of Mitochondria in C.Âelegans. Current Biology, 2014, 24, 760-765.	1.8	86
24	An Sp1 transcription factor coordinates caspase-dependent and -independent apoptotic pathways. Nature, 2013, 500, 354-358.	13.7	54
25	Both the Caspase CSP-1 and a Caspase-Independent Pathway Promote Programmed Cell Death in Parallel to the Canonical Pathway for Apoptosis in Caenorhabditis elegans. PLoS Genetics, 2013, 9, e1003341.	1.5	43
26	Cytochrome P450 Drives a HIF-Regulated Behavioral Response to Reoxygenation by C. elegans. Science, 2013, 341, 554-558.	6.0	32
27	The Caenorhabditis elegans Gene mfap-1 Encodes a Nuclear Protein That Affects Alternative Splicing. PLoS Genetics, 2012, 8, e1002827.	1.5	27
28	CYSL-1 Interacts with the O2-Sensing Hydroxylase EGL-9 to Promote H2S-Modulated Hypoxia-Induced Behavioral Plasticity in C.Âelegans. Neuron, 2012, 73, 925-940.	3.8	104
29	Programmed elimination of cells by caspase-independent cell extrusion in C. elegans. Nature, 2012, 488, 226-230.	13.7	60
30	Dopamine Signaling Is Essential for Precise Rates of Locomotion by C. elegans. PLoS ONE, 2012, 7, e38649.	1.1	67
31	The LIN-15A and LIN-56 Transcriptional Regulators Interact to Negatively Regulate EGF/Ras Signaling inCaenorhabditis elegansVulval Cell-Fate Determination. Genetics, 2011, 187, 803-815.	1.2	10
32	MAB-10/NAB acts with LIN-29/EGR to regulate terminal differentiation and the transition from larva to adult in C. elegans. Development (Cambridge), 2011, 138, 4051-4062.	1.2	36
33	The Caenorhabditis elegans Synthetic Multivulva Genes Prevent Ras Pathway Activation by Tightly Repressing Global Ectopic Expression of lin-3 EGF. PLoS Genetics, 2011, 7, e1002418.	1.5	38
34	Chromosome-Biased Binding and Gene Regulation by the Caenorhabditis elegans DRM Complex. PLoS Genetics, 2011, 7, e1002074.	1.5	50
35	Six and Eya promote apoptosis through direct transcriptional activation of the proapoptotic BH3-only geneegl-1inCaenorhabditis elegans. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15479-15484.	3.3	40
36	Otx-dependent expression of proneural bHLH genes establishes a neuronal bilateral asymmetry inC. elegans. Development (Cambridge), 2010, 137, 4017-4027.	1.2	21

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37	Abl Kinase Inhibits the Engulfment of Apopotic Cells in Caenorhabditis elegans. PLoS Biology, 2009, 7, e1000099.	2.6	43
38	Ligand-Gated Chloride Channels Are Receptors for Biogenic Amines in C. elegans. Science, 2009, 325, 96-100.	6.0	100
39	Mutations in the Caenorhabditis elegans U2AF Large Subunit UAF-1 Alter the Choice of a 3â€² Splice Site In Vivo. PLoS Genetics, 2009, 5, e1000708.	1.5	19
40	FMRFamide neuropeptides and acetylcholine synergistically inhibit egg-laying by C. elegans. Nature Neuroscience, 2008, 11, 1168-1176.	7.1	118
41	Multiple Levels of Redundant Processes InhibitCaenorhabditis elegansVulval Cell Fates. Genetics, 2008, 179, 2001-2012.	1.2	20
42	Caenorhabditis elegansGenes Required for the Engulfment of Apoptotic Corpses Function in the Cytotoxic Cell Deaths Induced by Mutations inlin-24andlin-33. Genetics, 2008, 179, 403-417.	1.2	19
43	DPL-1 DP, LIN-35 Rb and EFL-1 E2F Act With the MCD-1 Zinc-Finger Protein to Promote Programmed Cell Death in Caenorhabditis elegans. Genetics, 2007, 175, 1719-1733.	1.2	34
44	TwoC. eleganshistone methyltransferases represslin-3EGF transcription to inhibit vulval development. Development (Cambridge), 2007, 134, 2991-2999.	1.2	142
45	Most Caenorhabditis elegans microRNAs Are Individually Not Essential for Development or Viability. PLoS Genetics, 2007, 3, e215.	1.5	412
46	LIN-61, One of Two Caenorhabditis elegans 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
47	The short coiled-coil domain-containing protein UNC-69 cooperates with UNC-76 to regulate axonal outgrowth and normal presynaptic organization in Caenorhabditis elegans. Journal of Biology, 2006, 5, 9.	2.7	28
48	Some C. elegans class B synthetic multivulva proteins encode a conserved LIN-35 Rb-containing complex distinct from a NuRD-like complex. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 16782-16787.	3.3	123
49	Identification and Classification of Genes That Act Antagonistically to let-60 Ras Signaling in Caenorhabditis elegans Vulval Development. Genetics, 2006, 173, 709-726.	1.2	50
50	C. elegans ISWI and NURF301 antagonize an Rb-like pathway in the determination of multiple cell fates. Development (Cambridge), 2006, 133, 2695-2704.	1.2	61
51	Stanley J. Korsmeyer (1950â€“2005). Nature, 2005, 435, 161-161.	13.7	2
52	lin-8, Which Antagonizes Caenorhabditis elegans Ras-Mediated Vulval Induction, Encodes a Novel Nuclear Protein That Interacts With the LIN-35 Rb Protein. Genetics, 2005, 171, 1017-1031.	1.2	18
53	Tyramine Functions Independently of Octopamine in the Caenorhabditis elegans Nervous System. Neuron, 2005, 46, 247-260.	3.8	327
54	Most Caenorhabditis elegans microRNAs are individually not essential for development or viability. PLoS Genetics, 2005, preprint, e215.	1.5	0

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55	THE ENGULFMENT PROCESS OF PROGRAMMED CELL DEATH INCAENORHABDITIS ELEGANS. Annual Review of Cell and Developmental Biology, 2004, 20, 193-221.	4.0	229
56	NOBEL LECTURE: Worms, Life and Death. Bioscience Reports, 2003, 23, 239-303.	1.1	72
57	Worms, Life, and Death (Nobel Lecture). ChemBioChem, 2003, 4, 697-711.	1.3	164
58	sup-9, sup-10, andunc-93May Encode Components of a Two-Pore K⁺Channel that Coordinates Muscle Contraction inCaenorhabditis elegans. Journal of Neuroscience, 2003, 23, 9133-9145.	1.7	89
59	New Genes That Interact With lin-35 Rb to Negatively Regulate the let-60 ras Pathway in Caenorhabditis elegans. Genetics, 2003, 164, 135-151.	1.2	44
60	The Caenorhabditis elegans vulval morphogenesis gene sqv-4 encodes a UDP-glucose dehydrogenase that is temporally and spatially regulated. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 14224-14229.	3.3	70
61	Mutations in theCaenorhabditis elegansSerotonin Reuptake Transporter MOD-5 Reveal Serotonin-Dependent and -Independent Activities of Fluoxetine. Journal of Neuroscience, 2001, 21, 5871-5884.	1.7	150
62	Genetic Control of Programmed Cell Death in C. Elegans. Scientific World Journal, The, 2001, 1, 137-137.	0.8	6
63	Phagocytosis promotes programmed cell death in C. elegans. Nature, 2001, 412, 198-202.	13.7	327
64	ThreeC. elegansRac proteins and several alternative Rac regulators control axon guidance, cell migration and apoptotic cell phagocytosis. Development (Cambridge), 2001, 128, 4475-4488.	1.2	197
65	The 21-nucleotide let-7 RNA regulates developmental timing in Caenorhabditis elegans. Nature, 2000, 403, 901-906.	13.7	4,315
66	CED-2/CrkII and CED-10/Rac control phagocytosis and cell migration in Caenorhabditis elegans. Nature Cell Biology, 2000, 2, 131-136.	4.6	388
67	MOD-1 is a serotonin-gated chloride channel that modulates locomotory behaviour in C.â€‰elegans. Nature, 2000, 408, 470-475.	13.7	212
68	Mutations in Synaptojanin Disrupt Synaptic Vesicle Recycling. Journal of Cell Biology, 2000, 150, 589-600.	2.3	247
69	Translocation of C. elegans CED-4 to Nuclear Membranes During Programmed Cell Death. Science, 2000, 287, 1485-1489.	6.0	221
70	EAT-4, a Homolog of a Mammalian Sodium-Dependent Inorganic Phosphate Cotransporter, Is Necessary for Glutamatergic Neurotransmission inCaenorhabditis elegans. Journal of Neuroscience, 1999, 19, 159-167.	1.7	328
71	C. elegans phagocytosis and cell-migration protein CED-5 is similar to human DOCK180. Nature, 1998, 392, 501-504.	13.7	346
72	Mutations in the glutamate transporter EAAT2 gene do not cause abnormal EAAT2 transcripts in amyotrophic lateral sclerosis. Annals of Neurology, 1998, 43, 645-653.	2.8	109

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73	Refined mapping and characterization of the recessive familial amyotrophic lateral sclerosis locus () Tj ETQq1 1 0.784314 rgBT /Overlock	0.7	23
74	C. elegans: Sequence to Biology. , 1998, 282, 2011-2011.		37
75	Gain-of-Function Mutations in the Caenorhabditis elegans lin-1 ETS Gene Identify a C-Terminal Regulatory Domain Phosphorylated by ERK MAP Kinase. Genetics, 1998, 149, 1809-1822.	1.2	106
76	Caenorhabditis elegans CED-9 protein is a bifunctional cell-death inhibitor. Nature, 1997, 390, 305-308.	13.7	124
77	Transcriptional regulator of programmed cell death encoded by Caenorhabditis elegans gene ces-2. Nature, 1996, 382, 545-547.	13.7	163
78	Patterning of the Caenorhabditis elegans head region by the Pax-6 family member vab-3. Nature, 1995, 377, 52-55.	13.7	168
79	Inhibition of the Caenorhabditis elegans cell-death protease CED-3 by a CED-3 cleavage site in baculovirus p35 protein. Nature, 1995, 377, 248-251.	13.7	486
80	Defective recycling of synaptic vesicles in synaptotagmin mutants of Caenorhabditis elegans. Nature, 1995, 378, 196-199.	13.7	303
81	Superoxide Dismutase Concentration and Activity in Familial Amyotrophic Lateral Sclerosis. Journal of Neurochemistry, 1995, 64, 2366-2369.	2.1	101
82	Control of type-D GABAergic neuron differentiation by C. elegans UNC-30 homeodomain protein. Nature, 1994, 372, 780-783.	13.7	247
83	Activation of C. elegans cell death protein CED-9 by an ammo-acid substitution in a domain conserved in Bcl-2. Nature, 1994, 369, 318-320.	13.7	172
84	Genes required for GABA function in Caenorhabditis elegans. Nature, 1993, 364, 334-337.	13.7	294
85	The GABAergic nervous system of Caenorhabditis elegans. Nature, 1993, 364, 337-341.	13.7	434
86	Mutations in Cu/Zn superoxide dismutase gene are associated with familial amyotrophic lateral sclerosis. Nature, 1993, 362, 59-62.	13.7	6,331
87	Odorant-selective genes and neurons mediate olfaction in C. elegans. Cell, 1993, 74, 515-527.	13.5	1,081
88	Multiple intercellular signalling systems control the development of the Caenorhabditis elegans vulva. Nature, 1991, 351, 535-541.	13.7	254
89	Novel cysteine-rich motif and homeodomain in the product of the Caenorhabditis elegans cell lineage gene lin-II. Nature, 1990, 344, 876-879.	13.7	548
90	Caenorhabditis elegans ras gene let-60 acts as a switch in the pathway of vulval induction. Nature, 1990, 348, 503-509.	13.7	408

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91	Effects of starvation and neuroactive drugs on feeding inCaenorhabditis elegans. The Journal of Experimental Zoology, 1990, 253, 263-270.	1.4	335
92	A genetic pathway for the development of the Caenorhabditis elegans HSN motor neurons. Nature, 1988, 336, 638-646.	13.7	466
93	A genetic pathway for the specification of the vulval cell lineages of Caenorhabditis elegans. Nature, 1987, 326, 259-267.	13.7	337
94	A VISIBLE ALLELE OF THE MUSCLE GENE sup-10 X OF C. ELEGANS. Genetics, 1986, 113, 63-72.	1.2	35
95	MUTATIONS WITH DOMINANT EFFECTS ON THE BEHAVIOR AND MORPHOLOGY OF THE NEMATODE CAENORHABDITIS ELEGANS. Genetics, 1986, 113, 821-852.	1.2	209
96	C. ELEGANS unc-105 MUTATIONS AFFECT MUSCLE AND ARE SUPPRESSED BY OTHER MUTATIONS THAT AFFECT MUSCLE. Genetics, 1986, 113, 853-867.	1.2	67
97	IDENTIFICATION AND CHARACTERIZATION OF 22 GENES THAT AFFECT THE VULVAL CELL LINEAGES OF THE NEMATODE CAENORHABDITIS ELEGANS. Genetics, 1985, 110, 17-72.	1.2	562
98	EGG-LAYING DEFECTIVE MUTANTS OF THE NEMATODE CAENORHABDITIS ELEGANS. Genetics, 1983, 104, 619-647.	1.2	722
99	DOMINANT SUPPRESSORS OF A MUSCLE MUTANT DEFINE AN ESSENTIAL GENE OF CAENORHABDITIS ELEGANS. Genetics, 1982, 101, 211-225.	1.2	43
100	unc-93(e1500): A BEHAVIORAL MUTANT OF CAENORHABDITIS ELEGANS THAT DEFINES A GENE WITH A WILD-TYPE NULL PHENOTYPE. Genetics, 1980, 96, 147-164.	1.2	228
101	ISOLATION AND GENETIC CHARACTERIZATION OF CELL-LINEAGE MUTANTS OF THE NEMATODE CAENORHABDITIS ELEGANS. Genetics, 1980, 96, 435-454.	1.2	396
102	A uniform genetic nomenclature for the nematode Caenorhabditis elegans. Molecular Genetics and Genomics, 1979, 175, 129-133.	2.4	470