

# Cornelia I Bargmann

## List of Publications by Year in descending order

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Version: 2024-02-01

158  
papers

38,576  
citations

2797

94  
h-index

6294

158  
g-index

181  
all docs

181  
docs citations

181  
times ranked

23744  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Genes that act downstream of DAF-16 to influence the lifespan of <i>Caenorhabditis elegans</i> . <i>Nature</i> , 2003, 424, 277-283.  | 13.7 | 1,998     |
| 2  | Imaging neural activity in worms, flies and mice with improved GCaMP calcium indicators. <i>Nature Methods</i> , 2009, 6, 875-881.  | 9.0  | 1,759     |
| 3  | Optimization of a GCaMP Calcium Indicator for Neural Activity Imaging. <i>Journal of Neuroscience</i> , 2012, 32, 13819-13840.  | 1.7  | 1,099     |
| 4  | The neu oncogene encodes an epidermal growth factor receptor-related protein. <i>Nature</i> , 1986, 319, 226-230.   | 13.7 | 1,090     |
| 5  | Odorant-selective genes and neurons mediate olfaction in <i>C. elegans</i> . <i>Cell</i> , 1993, 74, 515-527.   | 13.5 | 1,081     |
| 6  | Multiple independent activations of the neu oncogene by a point mutation altering the transmembrane domain of p185. <i>Cell</i> , 1986, 45, 649-657.  | 13.5 | 1,034     |
| 7  | An optimized fluorescent probe for visualizing glutamate neurotransmission. <i>Nature Methods</i> , 2013, 10, 162-170.  | 9.0  | 827       |
| 8  | Sensitive red protein calcium indicators for imaging neural activity. <i>ELife</i> , 2016, 5, .   | 2.8  | 813       |
| 9  | Neurobiology of the <i>Caenorhabditis elegans</i> Genome. , 1998, 282, 2028-2033.   |      | 810       |
| 10 | Natural Variation in a Neuropeptide Y Receptor Homolog Modifies Social Behavior and Food Response in <i>C. elegans</i> . <i>Cell</i> , 1998, 94, 679-689.   | 13.5 | 737       |
| 11 | Pathogenic bacteria induce aversive olfactory learning in <i>Caenorhabditis elegans</i> . <i>Nature</i> , 2005, 438, 179-184.   | 13.7 | 679       |
| 12 | A circuit for navigation in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005, 102, 3184-3191.  | 3.3  | 674       |
| 13 | Divergent seven transmembrane receptors are candidate chemosensory receptors in <i>C. elegans</i> . <i>Cell</i> , 1995, 83, 207-218.  | 13.5 | 656       |
| 14 | Chemosensory neurons with overlapping functions direct chemotaxis to multiple chemicals in <i>C. elegans</i> . <i>Neuron</i> , 1991, 7, 729-742.  | 3.8  | 650       |
| 15 | GFP Reconstitution Across Synaptic Partners (GRASP) Defines Cell Contacts and Synapses in Living Nervous Systems. <i>Neuron</i> , 2008, 57, 353-363.  | 3.8  | 644       |
| 16 | Genetically encoded calcium indicators for multi-color neural activity imaging and combination with optogenetics. <i>Frontiers in Molecular Neuroscience</i> , 2013, 6, 2.  | 1.4  | 629       |
| 17 | Chemosensation in <i>C. elegans</i> . <i>WormBook</i> , 2006, , 1-29.   | 5.3  | 603       |
| 18 | OSM-9, A Novel Protein with Structural Similarity to Channels, Is Required for Olfaction, Mechanosensation, and Olfactory Adaptation in <i>Caenorhabditis elegans</i> . <i>Journal of Neuroscience</i> , 1997, 17, 8259-8269. | 1.7  | 574       |

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|----|---|------|-----------|
| 19 | Dissecting a circuit for olfactory behaviour in <i>Caenorhabditis elegans</i> . <i>Nature</i> , 2007, 450, 63-70.   | 13.7 | 573       |
| 20 | Microfluidics for in vivo imaging of neuronal and behavioral activity in <i>Caenorhabditis elegans</i> . <i>Nature Methods</i> , 2007, 4, 727-731.  | 9.0  | 539       |
| 21 | Oxygen sensation and social feeding mediated by a <i>C. elegans</i> guanylate cyclase homologue. <i>Nature</i> , 2004, 430, 317-322.  | 13.7 | 529       |
| 22 | odr-10 Encodes a Seven Transmembrane Domain Olfactory Receptor Required for Responses to the Odorant Diacetyl. <i>Cell</i> , 1996, 84, 899-909.   | 13.5 | 511       |
| 23 | From the connectome to brain function. <i>Nature Methods</i> , 2013, 10, 483-490.   | 9.0  | 451       |
| 24 | A hub-and-spoke circuit drives pheromone attraction and social behaviour in <i>C. elegans</i> . <i>Nature</i> , 2009, 458, 1171-1175.   | 13.7 | 444       |
| 25 | Comparing genomic expression patterns across species identifies shared transcriptional profile in aging. <i>Nature Genetics</i> , 2004, 36, 197-204.  | 9.4  | 434       |
| 26 | A Putative Cyclic Nucleotide-Gated Channel Is Required for Sensory Development and Function in <i>C. elegans</i> . <i>Neuron</i> , 1996, 17, 695-706.   | 3.8  | 421       |
| 27 | Combinatorial Expression of TRPV Channel Proteins Defines Their Sensory Functions and Subcellular Localization in <i>C. elegans</i> Neurons. <i>Neuron</i> , 2002, 35, 307-318.   | 3.8  | 417       |
| 28 | Beyond the connectome: How neuromodulators shape neural circuits. <i>BioEssays</i> , 2012, 34, 458-465.   | 1.2  | 406       |
| 29 | Reprogramming Chemotaxis Responses: Sensory Neurons Define Olfactory Preferences in <i>C. elegans</i> . <i>Cell</i> , 1997, 91, 161-169.  | 13.5 | 404       |
| 30 | Control of larval development by chemosensory neurons in <i>Caenorhabditis elegans</i> . <i>Science</i> , 1991, 251, 1243-1246.   | 6.0  | 399       |
| 31 | Fast multicolor 3D imaging using aberration-corrected multifocus microscopy. <i>Nature Methods</i> , 2013, 10, 60-63.   | 9.0  | 375       |
| 32 | Serotonin and the Neuropeptide PDF Initiate and Extend Opposing Behavioral States in <i>C. elegans</i> . <i>Cell</i> , 2013, 154, 1023-1035.  | 13.5 | 356       |
| 33 | A Central Role of the BK Potassium Channel in Behavioral Responses to Ethanol in <i>C. elegans</i> . <i>Cell</i> , 2003, 115, 655-666.  | 13.5 | 324       |
| 34 | Mechanosensory signalling in <i>C. elegans</i> mediated by the GLR-1 glutamate receptor. <i>Nature</i> , 1995, 378, 78-81.  | 13.7 | 322       |
| 35 | Detection and avoidance of a natural product from the pathogenic bacterium <i>Serratia marcescens</i> by <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 2295-2300. | 3.3  | 320       |
| 36 | Odorant-specific adaptation pathways generate olfactory plasticity in <i>C. elegans</i> . <i>Neuron</i> , 1995, 14, 803-812.  | 3.8  | 311       |

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|----|--|------|-----------|
| 37 | Mammalian TRPV4 (VR-OAC) directs behavioral responses to osmotic and mechanical stimuli in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2003, 100, 14531-14536.      | 3.3  | 310       |
| 38 | The G $\alpha$ Protein ODR-3 Mediates Olfactory and Nociceptive Function and Controls Cilium Morphogenesis in <i>C. elegans</i> Olfactory Neurons. <i>Neuron</i> , 1998, 20, 55-67.  | 3.8  | 295       |
| 39 | Dynamic regulation of axon guidance. <i>Nature Neuroscience</i> , 2001, 4, 1169-1176.  | 7.1  | 294       |
| 40 | Comparative chemosensation from receptors to ecology. <i>Nature</i> , 2006, 444, 295-301.  | 13.7 | 293       |
| 41 | The Immunoglobulin Superfamily Protein SYG-1 Determines the Location of Specific Synapses in <i>C. elegans</i> . <i>Cell</i> , 2003, 112, 619-630.   | 13.5 | 287       |
| 42 | Synaptic Specificity Is Generated by the Synaptic Guidepost Protein SYG-2 and Its Receptor, SYG-1. <i>Cell</i> , 2004, 116, 869-881.   | 13.5 | 277       |
| 43 | Role of a Class Dhc1b Dynein in Retrograde Transport of Ift Motors and Ift Raft Particles along Cilia, but Not Dendrites, in Chemosensory Neurons of Living <i>Caenorhabditis elegans</i> . <i>Journal of Cell Biology</i> , 1999, 147, 519-530. | 2.3  | 276       |
| 44 | The Conserved Immunoglobulin Superfamily Member SAX-3/Robo Directs Multiple Aspects of Axon Guidance in <i>C. elegans</i> . <i>Cell</i> , 1998, 92, 217-227.   | 13.5 | 275       |
| 45 | Lateral Signaling Mediated by Axon Contact and Calcium Entry Regulates Asymmetric Odorant Receptor Expression in <i>C. elegans</i> . <i>Cell</i> , 1999, 99, 387-398.  | 13.5 | 261       |
| 46 | <i>C. elegans</i> Responds to Chemical Repellents by Integrating Sensory Inputs from the Head and the Tail. <i>Current Biology</i> , 2002, 12, 730-734.  | 1.8  | 261       |
| 47 | Neurons Detect Increases and Decreases in Oxygen Levels Using Distinct Guanylate Cyclases. <i>Neuron</i> , 2009, 61, 865-879.  | 3.8  | 253       |
| 48 | Chapter 10 Laser Killing of Cells in <i>Caenorhabditis elegans</i> . <i>Methods in Cell Biology</i> , 1995, 48, 225-250.   | 0.5  | 249       |
| 49 | UNC-6/Netrin induces neuronal asymmetry and defines the site of axon formation. <i>Nature Neuroscience</i> , 2006, 9, 511-518.   | 7.1  | 237       |
| 50 | Odorant Receptor Localization to Olfactory Cilia Is Mediated by ODR-4, a Novel Membrane-Associated Protein. <i>Cell</i> , 1998, 93, 455-466.   | 13.5 | 230       |
| 51 | Social feeding in <i>Caenorhabditis elegans</i> is induced by neurons that detect aversive stimuli. <i>Nature</i> , 2002, 419, 899-903.  | 13.7 | 229       |
| 52 | Olfaction and Odor Discrimination Are Mediated by the <i>C. elegans</i> Guanylyl Cyclase ODR-1. <i>Neuron</i> , 2000, 25, 575-586.   | 3.8  | 227       |
| 53 | Inducible and titratable silencing of <i>Caenorhabditis elegans</i> neurons in vivo with histamine-gated chloride channels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 2770-2775.       | 3.3  | 226       |
| 54 | Parallel evolution of domesticated <i>Caenorhabditis</i> species targets pheromone receptor genes. <i>Nature</i> , 2011, 477, 321-325.   | 13.7 | 225       |

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|----|---|------|-----------|
| 55 | Oxytocin/Masopressin-Related Peptides Have an Ancient Role in Reproductive Behavior. <i>Science</i> , 2012, 338, 540-543.   | 6.0  | 225       |
| 56 | Quantitative Mapping of a Digenic Behavioral Trait Implicates Globin Variation in <i>C. elegans</i> Sensory Behaviors. <i>Neuron</i> , 2009, 61, 692-699.   | 3.8  | 219       |
| 57 | The Netrin Receptor UNC-40/DCC Stimulates Axon Attraction and Outgrowth through Enabled and, in Parallel, Rac and UNC-115/AbLIM. <i>Neuron</i> , 2003, 37, 53-65.   | 3.8  | 216       |
| 58 | High-content behavioral analysis of <i>Caenorhabditis elegans</i> in precise spatiotemporal chemical environments. <i>Nature Methods</i> , 2011, 8, 599-605.  | 9.0  | 214       |
| 59 | <i>C. elegans</i> odour discrimination requires asymmetric diversity in olfactory neurons. <i>Nature</i> , 2001, 410, 698-701.  | 13.7 | 213       |
| 60 | Neuropeptide feedback modifies odor-evoked dynamics in <i>Caenorhabditis elegans</i> olfactory neurons. <i>Nature Neuroscience</i> , 2010, 13, 615-621.   | 7.1  | 213       |
| 61 | Innate Immunity in <i>Caenorhabditis elegans</i> Is Regulated by Neurons Expressing NPR-1/GPCR. <i>Science</i> , 2008, 322, 460-464.  | 6.0  | 210       |
| 62 | <i>C. elegans</i> Slit Acts in Midline, Dorsal-Ventral, and Anterior-Posterior Guidance via the SAX-3/Robo Receptor. <i>Neuron</i> , 2001, 32, 25-38.   | 3.8  | 209       |
| 63 | Ca <sup>2+</sup> Signaling via the Neuronal Calcium Sensor-1 Regulates Associative Learning and Memory in <i>C. elegans</i> . <i>Neuron</i> , 2001, 30, 241-248.  | 3.8  | 205       |
| 64 | Feedback from Network States Generates Variability in a Probabilistic Olfactory Circuit. <i>Cell</i> , 2015, 161, 215-227.  | 13.5 | 204       |
| 65 | A Distributed Chemosensory Circuit for Oxygen Preference in <i>C. elegans</i> . <i>PLoS Biology</i> , 2006, 4, e274.  | 2.6  | 199       |
| 66 | 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       |
| 67 | The <i>C. elegans</i> gene <i>odr-7</i> encodes an olfactory-specific member of the nuclear receptor superfamily. <i>Cell</i> , 1994, 79, 971-980.  | 13.5 | 195       |
| 68 | Catecholamine receptor polymorphisms affect decision-making in <i>C. elegans</i> . <i>Nature</i> , 2011, 472, 313-318.  | 13.7 | 189       |
| 69 | The CaMKII UNC-43 Activates the MAPKKK NSY-1 to Execute a Lateral Signaling Decision Required for Asymmetric Olfactory Neuron Fates. <i>Cell</i> , 2001, 105, 221-232.                                    | 13.5 | 188       |
| 70 | The BRAIN Initiative: developing technology to catalyse neuroscience discovery. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2015, 370, 20140164.                      | 1.8  | 179       |
| 71 | The Cyclic GMP-Dependent Protein Kinase EGL-4 Regulates Olfactory Adaptation in <i>C. elegans</i> . <i>Neuron</i> , 2002, 36, 1079-1089.  | 3.8  | 178       |
| 72 | Wnt Signals and Frizzled Activity Orient Anterior-Posterior Axon Outgrowth in <i>C. elegans</i> . <i>Developmental Cell</i> , 2006, 10, 379-390.  | 3.1  | 176       |

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|----|---|------|-----------|
| 73 | A Toll-interleukin 1 repeat protein at the synapse specifies asymmetric odorant receptor expression via ASK1 MAPKKK signaling. <i>Genes and Development</i> , 2005, 19, 270-281.              | 2.7  | 168       |
| 74 | The SAD-1 Kinase Regulates Presynaptic Vesicle Clustering and Axon Termination. <i>Neuron</i> , 2001, 29, 115-129.  | 3.8  | 166       |
| 75 | Hierarchical assembly of presynaptic components in defined <i>C. elegans</i> synapses. <i>Nature Neuroscience</i> , 2006, 9, 1488-1498.   | 7.1  | 166       |
| 76 | High-throughput imaging of neuronal activity in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E4266-73. | 3.3  | 164       |
| 77 | Specific Polyunsaturated Fatty Acids Drive TRPV-Dependent Sensory Signaling In Vivo. <i>Cell</i> , 2004, 119, 889-900.  | 13.5 | 160       |
| 78 | UNC-33 (CRMP) and ankyrin organize microtubules and localize kinesin to polarize axon-dendrite sorting. <i>Nature Neuroscience</i> , 2012, 15, 48-56.   | 7.1  | 152       |
| 79 | Multiple Wnts and Frizzled Receptors Regulate Anteriorly Directed Cell and Growth Cone Migrations in <i>Caenorhabditis elegans</i> . <i>Developmental Cell</i> , 2006, 10, 367-377.           | 3.1  | 151       |
| 80 | Polarized Dendritic Transport and the AP-1 $\hat{1}$ / $\hat{4}$ Clathrin Adaptor UNC-101 Localize Odorant Receptors to Olfactory Cilia. <i>Neuron</i> , 2001, 31, 277-287.                   | 3.8  | 148       |
| 81 | Genetic and Cellular Analysis of Behavior in <i>C. Elegans</i> . <i>Annual Review of Neuroscience</i> , 1993, 16, 47-71.  | 5.0  | 147       |
| 82 | Shared receptors in axon guidance: SAX-3/Robo signals via UNC-34/Enabled and a Netrin-independent UNC-40/DCC function. <i>Nature Neuroscience</i> , 2002, 5, 1147-1154.                       | 7.1  | 144       |
| 83 | Neuromodulatory State and Sex Specify Alternative Behaviors through Antagonistic Synaptic Pathways in <i>C.Ælegans</i> . <i>Neuron</i> , 2012, 75, 585-592.                                   | 3.8  | 141       |
| 84 | Otx/otd Homeobox Genes Specify Distinct Sensory Neuron Identities in <i>C. elegans</i> . <i>Developmental Cell</i> , 2003, 5, 621-633.  | 3.1  | 137       |
| 85 | SIGNAL TRANSDUCTION IN THE CAENORHABDITIS ELEGANS NERVOUS SYSTEM. <i>Annual Review of Neuroscience</i> , 1998, 21, 279-308.   | 5.0  | 136       |
| 86 | Balancing selection shapes density-dependent foraging behaviour. <i>Nature</i> , 2016, 539, 254-258.  | 13.7 | 132       |
| 87 | A Behavioral Switch: cGMP and PKC Signaling in Olfactory Neurons Reverses Odor Preference in <i>C. elegans</i> . <i>Neuron</i> , 2008, 59, 959-971.   | 3.8  | 126       |
| 88 | Neuromodulatory Control of Long-Term Behavioral Patterns and Individuality across Development. <i>Cell</i> , 2017, 171, 1649-1662.e10.  | 13.5 | 124       |
| 89 | An Innexin-Dependent Cell Network Establishes Left-Right Neuronal Asymmetry in <i>C. elegans</i> . <i>Cell</i> , 2007, 129, 787-799.  | 13.5 | 123       |
| 90 | Distinct Circuits for the Formation and Retrieval of an Imprinted Olfactory Memory. <i>Cell</i> , 2016, 164, 632-643.   | 13.5 | 122       |

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|-----|---|------|-----------|
| 91  | MIG-10/Lamellipodin and AGE-1/PI3K Promote Axon Guidance and Outgrowth in Response to Slit and Netrin. <i>Current Biology</i> , 2006, 16, 854-862.  | 1.8  | 120       |
| 92  | A Circuit for Gradient Climbing in <i>C.Âelegans</i> Chemotaxis. <i>Cell Reports</i> , 2015, 12, 1748-1760.   | 2.9  | 120       |
| 93  | A dynamin GTPase mutation causes a rapid and reversible temperature-inducible locomotion defect in <i>C. elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 10438-10443.                      | 3.3  | 119       |
| 94  | SEKâ€1 MAPKK mediates Ca <sup>2+</sup> signaling to determine neuronal asymmetric development in <i>Caenorhabditis elegans</i> . <i>EMBO Reports</i> , 2002, 3, 56-62.  | 2.0  | 118       |
| 95  | Sensory experience and sensory activity regulate chemosensory receptor gene expression in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 11032-11038.                   | 3.3  | 117       |
| 96  | Mechanosensory Neurite Termination and Tiling Depend on SAX-2 and the SAX-1 Kinase. <i>Neuron</i> , 2004, 44, 239-249.  | 3.8  | 110       |
| 97  | Temporal Responses of <i>C.Âelegans</i> Chemosensory Neurons Are Preserved in Behavioral Dynamics. <i>Neuron</i> , 2014, 81, 616-628.   | 3.8  | 110       |
| 98  | Behavioral Choice between Conflicting Alternatives Is Regulated by a Receptor Guanylyl Cyclase, GCY-28, and a Receptor Tyrosine Kinase, SCD-2, in AIA Interneurons of <i>Caenorhabditis elegans</i> . <i>Journal of Neuroscience</i> , 2011, 31, 3007-3015. | 1.7  | 106       |
| 99  | The <i>Caenorhabditis elegans</i> seven-transmembrane protein ODR-10 functions as an odorant receptor in mammalian cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 1997, 94, 12162-12167.                   | 3.3  | 105       |
| 100 | Laser Microsurgery in <i>Caenorhabditis elegans</i> . <i>Methods in Cell Biology</i> , 2012, 107, 177-206.  | 0.5  | 105       |
| 101 | Functional reconstitution of a heteromeric cyclic nucleotide-gated channel of <i>Caenorhabditis elegans</i> in cultured cells. <i>Brain Research</i> , 1999, 821, 160-168.  | 1.1  | 102       |
| 102 | The <i>Caenorhabditis elegans odr-2</i> Gene Encodes a Novel Ly-6-Related Protein Required for Olfaction. <i>Genetics</i> , 2001, 157, 211-224.   | 1.2  | 98        |
| 103 | TRP CHANNELS INC. <i>ELEGANS</i> . <i>Annual Review of Physiology</i> , 2006, 68, 719-736.  | 5.6  | 96        |
| 104 | Olfactory Receptors, Vomeronasal Receptors, and the Organization of Olfactory Information. <i>Cell</i> , 1997, 90, 585-587.   | 13.5 | 91        |
| 105 | Neuronal Cell Shape and Neurite Initiation Are Regulated by the Ndr Kinase SAX-1, a Member of the Orb6/COT-1/Warts Serine/Threonine Kinase Family. <i>Molecular Biology of the Cell</i> , 2000, 11, 3177-3190.  | 0.9  | 90        |
| 106 | Genetic contributions to behavioural diversity at the geneâ€environment interface. <i>Nature Reviews Genetics</i> , 2011, 12, 809-820.  | 7.7  | 90        |
| 107 | <i>C.Âelegans</i> AWA Olfactory Neurons Fire Calcium-Mediated All-or-None Action Potentials. <i>Cell</i> , 2018, 175, 57-70.e17.  | 13.5 | 90        |
| 108 | Hypoxia and the HIF-1 transcriptional pathway reorganize a neuronal circuit for oxygen-dependent behavior in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2008, 105, 7321-7326. | 3.3  | 88        |

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|-----|--|-----|-----------|
| 109 | UNC-115, a Conserved Protein with Predicted LIM and Actin-Binding Domains, Mediates Axon Guidance in <i>C. elegans</i> . <i>Neuron</i> , 1998, 21, 385-392.  | 3.8 | 87        |
| 110 | Invertebrate nociception: Behaviors, neurons and molecules. <i>Journal of Neurobiology</i> , 2004, 61, 161-174.  | 3.7 | 85        |
| 111 | A stochastic neuronal model predicts random search behaviors at multiple spatial scales in <i>C. elegans</i> . <i>ELife</i> , 2016, 5, .   | 2.8 | 83        |
| 112 | Presynaptic CaV2 calcium channel traffic requires CALF-1 and the $\hat{1}\pm 2\hat{1}$ subunit UNC-36. <i>Nature Neuroscience</i> , 2009, 12, 1257-1265.   | 7.1 | 76        |
| 113 | MultiFocus Polarization Microscope (MF-PolScope) for 3D polarization imaging of up to 25 focal planes simultaneously. <i>Optics Express</i> , 2015, 23, 7734.  | 1.7 | 76        |
| 114 | Specific Expression of Channelrhodopsin-2 in Single Neurons of <i>Caenorhabditis elegans</i> . <i>PLoS ONE</i> , 2012, 7, e43164.  | 1.1 | 69        |
| 115 | Multigenic Natural Variation Underlies <i>Caenorhabditis elegans</i> Olfactory Preference for the Bacterial Pathogen <i>Serratia marcescens</i> . <i>G3: Genes, Genomes, Genetics</i> , 2014, 4, 265-276.                      | 0.8 | 68        |
| 116 | The Brain Research Through Advancing Innovative Neurotechnologies (BRAIN) Initiative and Neurology. <i>JAMA Neurology</i> , 2014, 71, 675.   | 4.5 | 67        |
| 117 | Wnt-Ror signaling to SIA and SIB neurons directs anterior axon guidance and nerve ring placement in <i>C. elegans</i> . <i>Development (Cambridge)</i> , 2009, 136, 3801-3810.   | 1.2 | 64        |
| 118 | Regulatory changes in two chemoreceptor genes contribute to a <i>Caenorhabditis elegans</i> QTL for foraging behavior. <i>ELife</i> , 2016, 5, .   | 2.8 | 63        |
| 119 | Left-right olfactory asymmetry results from antagonistic functions of voltage-activated calcium channels and the Raw repeat protein OLRN-1 in <i>C. elegans</i> . <i>Neural Development</i> , 2007, 2, 24.                     | 1.1 | 61        |
| 120 | The Tripartite Motif Protein MADD-2 Functions with the Receptor UNC-40 (DCC) in Netrin-Mediated Axon Attraction and Branching. <i>Developmental Cell</i> , 2010, 18, 950-960.  | 3.1 | 61        |
| 121 | Parallel Multimodal Circuits Control an Innate Foraging Behavior. <i>Neuron</i> , 2019, 102, 407-419.e8.   | 3.8 | 60        |
| 122 | Parallel encoding of sensory history and behavioral preference during <i>Caenorhabditis elegans</i> olfactory learning. <i>ELife</i> , 2016, 5, .  | 2.8 | 57        |
| 123 | Inhibition of Netrin-Mediated Axon Attraction by a Receptor Protein Tyrosine Phosphatase. <i>Science</i> , 2004, 305, 103-106.   | 6.0 | 56        |
| 124 | Long-Range Regulatory Polymorphisms Affecting a GABA Receptor Constitute a Quantitative Trait Locus (QTL) for Social Behavior in <i>Caenorhabditis elegans</i> . <i>PLoS Genetics</i> , 2012, 8, e1003157.                     | 1.5 | 52        |
| 125 | Transcriptional regulation and stabilization of left-right neuronal identity in <i>C. elegans</i> . <i>Genes and Development</i> , 2009, 23, 345-358.  | 2.7 | 48        |
| 126 | Dissection of neuronal gap junction circuits that regulate social behavior in <i>Caenorhabditis elegans</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E1263-E1272. | 3.3 | 48        |



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|-----|--|------|-----------|
| 127 | Multifocus microscopy with precise color multi-phase diffractive optics applied in functional neuronal imaging. <i>Biomedical Optics Express</i> , 2016, 7, 855.                                   | 1.5  | 47        |
| 128 | Control of neuronal subtype identity by the <i>C. elegans</i> ARID protein CFI-1. <i>Genes and Development</i> , 2002, 16, 972-983.  | 2.7  | 44        |
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