Miriam B Goodman

List of Publications by Year
in descending order

100 papers	7,263 citations	61984 43 h-index	64796 79 g-index
118 all docs	118 docs citations	118 times ranked	6291 citing authors

#	Article	IF	Citations
1	Reciprocal interactions between transforming growth factor beta signaling and collagens: Insights from <i><scp>C</scp>aenorhabditis <scp>elegans</scp></i>. Developmental Dynamics, 2022, 251, 47-60.	1.8	9
2	Engineering Bright and Mechanosensitive Alkaline-Earth Rare-Earth Upconverting Nanoparticles. Journal of Physical Chemistry Letters, 2022, 13, 1547-1553.	4.6	10
3	DEG/ENaC/ASIC channels vary in their sensitivity to anti-hypertensive and non-steroidal anti-inflammatory drugs. Journal of General Physiology, 2021, 153, .	1.9	5
4	Touch-induced mechanical strain in somatosensory neurons is independent of extracellular matrix mutations in<i>Caenorhabditis elegans</i>. Molecular Biology of the Cell, 2020, 31, 1735-1743.	2.1	6
5	Expansion microscopy of C. elegans. ELife, 2020, 9, .	6.0	59
6	Alkaline-earth Rare-earth Upconverting Nanoparticles as Bio-compatible Mechanical Force Sensors. , 2020, , .		1
7	Optically Robust and Biocompatible Mechanosensitive Upconverting Nanoparticles. ACS Central Science, 2019, 5, 1211-1222.	11.3	30
8	Parallel Processing of Two Mechanosensory Modalities by a Single Neuron in C.Âelegans. Developmental Cell, 2019, 51, 617-631.e3.	7.0	62
9	How <i>Caenorhabditis elegans</i> Senses Mechanical Stress, Temperature, and Other Physical Stimuli. Genetics, 2019, 212, 25-51.	2.9	86
10	Funders should evaluate projects, not people. Lancet, The, 2019, 393, 494-495.	13.7	11
11	Progressive recruitment of distal MEC-4 channels determines touch response strength in <i>C. elegans</i>. Journal of General Physiology, 2019, 151, 1213-1230.	1.9	9
12	Somatosensory neurons integrate the geometry of skin deformation and mechanotransduction channels to shape touch sensing. ELife, 2019, 8, .	6.0	14
13	Ultrasound Elicits Behavioral Responses through Mechanical Effects on Neurons and Ion Channels in a Simple Nervous System. Journal of Neuroscience, 2018, 38, 3081-3091.	3.6	210
14	Using a Microfluidics Device for Mechanical Stimulation and High Resolution Imaging of C. elegans. Journal of Visualized Experiments, 2018, , .	0.3	12
15	The extraordinary AFD thermosensor of C. elegans. Pflugers Archiv European Journal of Physiology, 2018, 470, 839-849.	2.8	44
16	Synaptic Communication upon Gentle Touch. Neuron, 2018, 100, 1272-1274.	8.1	4
17	Bright, Mechanosensitive Upconversion with Cubic-Phase Heteroepitaxial Coreâ€“Shell Nanoparticles. Nano Letters, 2018, 18, 4454-4459.	9.1	55
18	The tactile receptive fields of freely moving<i>Caenorhabditis elegans</i>nematodes. Integrative Biology (United Kingdom), 2018, 10, 450-463.	1.3	7

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19	Loss of CaMKI Function Disrupts Salt Aversive Learning in <i>C. elegans</i>. Journal of Neuroscience, 2018, 38, 6114-6129.	3.6	18
20	Immunofluorescence reveals neuron-specific promoter activity in non-neuronal cells. MicroPublication Biology, 2018, 2018, .	0.1	2
21	The bodies of are twice as stiff as wild type. MicroPublication Biology, 2018, 2018, .	0.1	2
22	Pneumatic stimulation of C. elegans mechanoreceptor neurons in a microfluidic trap. Lab on A Chip, 2017, 17, 1116-1127.	6.0	55
23	Upconverting Nanoparticles as Optical Sensors of Nano- to Micro-Newton Forces. Nano Letters, 2017, 17, 4172-4177.	9.1	71
24	Forces applied during classical touch assays for Caenorhabditis elegans. PLoS ONE, 2017, 12, e0178080.	2.5	10
25	Genetic defects in Î²-spectrin and tau sensitize C. elegans axons to movement-induced damage via torque-tension coupling. ELife, 2017, 6, .	6.0	93
26	Molecules empowering animals to sense and respond to temperature in changing environments. Current Opinion in Neurobiology, 2016, 41, 92-98.	4.2	9
27	The tubulin repertoire of<i>Caenorhabditis elegans</i>sensory neurons and its contextâ€‘dependent role in process outgrowth. Molecular Biology of the Cell, 2016, 27, 3717-3728.	2.1	47
28	Grabbing brain activity on the go. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1965-1967.	7.1	1
29	Feeling Force: Physical and Physiological Principles Enabling Sensory Mechanotransduction. Annual Review of Cell and Developmental Biology, 2015, 31, 347-371.	9.4	128
30	Tissue mechanics govern the rapidly adapting and symmetrical response to touch. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, E6955-63.	7.1	57
31	Mechanical systems biology of <i>C. elegans</i> touch sensation. BioEssays, 2015, 37, 335-344.	2.5	34
32	FBN-1, a fibrillin-related protein, is required for resistance of the epidermis to mechanical deformation during C. elegans embryogenesis. ELife, 2015, 4, .	6.0	52
33	Bidirectional thermotaxis in <i>Caenorhabditis elegans</i> is mediated by distinct sensorimotor strategies driven by the AFD thermosensory neurons. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 2776-2781.	7.1	98
34	The Balance between Cytoplasmic and Nuclear CaM Kinase-1 Signaling Controls the Operating Range of Noxious Heat Avoidance. Neuron, 2014, 84, 983-996.	8.1	44
35	CaMKI-Dependent Regulation of Sensory Gene Expression Mediates Experience-Dependent Plasticity in the Operating Range of a Thermosensory Neuron. Neuron, 2014, 84, 919-926.	8.1	59
36	Mechanical control of the sense of touch by Î²-spectrin. Nature Cell Biology, 2014, 16, 224-233.	10.3	173

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37	Phospholipids that Contain Polyunsaturated Fatty Acids Enhance Neuronal Cell Mechanics and Touch Sensation. Cell Reports, 2014, 6, 70-80.	6.4	98
38	Sensory Biology: It Takes Piezo2 toÂTango. Current Biology, 2014, 24, R566-R569.	3.9	9
39	Thermotaxis navigation behavior. WormBook, 2014, , 1-10.	5.3	25
40	Assaying mechanosensation. WormBook, 2014, , 1-13.	5.3	51
41	PTRN-1, a microtubule minus end-binding CAMSAP homolog, promotes microtubule function in Caenorhabditis elegans neurons. ELife, 2014, 3, e01498.	6.0	78
42	MEMS-based force-clamp analysis of the role of body stiffness in<i>C. elegans</i>touch sensation. Integrative Biology (United Kingdom), 2013, 5, 853-864.	1.3	44
43	Miriam B. Goodman. Current Biology, 2013, 23, R333-R334.	3.9	0
44	Identification of 526 Conserved Metazoan Genetic Innovations Exposes a New Role for Cofactor E-like in Neuronal Microtubule Homeostasis. PLoS Genetics, 2013, 9, e1003804.	3.5	16
45	GCY-8, PDE-2, and NCS-1 are critical elements of the cGMP-dependent thermotransduction cascade in the AFD neurons responsible for <i>C. elegans</i> thermotaxis. Journal of General Physiology, 2013, 142, 437-449.	1.9	50
46	GCY-8, PDE-2, and NCS-1 are critical elements of the cGMP-dependent thermotransduction cascade in the AFD neurons responsible for <i>C. elegans</i> thermotaxis. Journal of Cell Biology, 2013, 203, 2031OIA114.	5.2	0
47	The doublecortin-related gene zyg-8 is a microtubule organizer in Caenorhabditis elegans neurons. Journal of Cell Science, 2012, 125, 5417-27.	2.0	12
48	Electrophysiological Methods for Caenorhabditis elegans Neurobiology. Methods in Cell Biology, 2012, 107, 409-436.	1.1	40
49	How We Feel: Ion Channel Partnerships that Detect Mechanical Inputs and Give Rise to Touch and Pain Perception. Neuron, 2012, 74, 609-619.	8.1	87
50	Insight into DEG/ENaC Channel Gating from Genetics and Structure. Physiology, 2012, 27, 282-290.	3.1	63
51	Posttranslational Acetylation of Î±-Tubulin Constrains Protofilament Number in Native Microtubules. Current Biology, 2012, 22, 1066-1074.	3.9	144
52	Caenorhabditis elegans Body Mechanics Are Regulated by Body Wall Muscle Tone. Biophysical Journal, 2011, 100, 1977-1985.	0.5	53
53	DEG/ENaC but Not TRP Channels Are the Major Mechanoelectrical Transduction Channels in a C.Âelegans Nociceptor. Neuron, 2011, 71, 845-857.	8.1	115
54	Piezoresistive cantilever force-clamp system. Review of Scientific Instruments, 2011, 82, 043703.	1.3	23

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55	Heat Avoidance Is Regulated by Transient Receptor Potential (TRP) Channels and a Neuropeptide Signaling Pathway in<i>Caenorhabditis elegans</i>. Genetics, 2011, 188, 91-103.	2.9	109
56	Alternatively spliced domains interact to regulate BK potassium channel gating. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20784-20789.	7.1	37
57	The DEG/ENaC Protein MEC-10 Regulates the Transduction Channel Complex in<i>Caenorhabditis elegans</i>Touch Receptor Neurons. Journal of Neuroscience, 2011, 31, 12695-12704.	3.6	75
58	Intragenic alternative splicing coordination is essential for <i>Caenorhabditis elegans slo-1</i> gene function. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 20790-20795.	7.1	34
59	Neuropeptides strike back. Nature Neuroscience, 2010, 13, 528-529.	14.8	2
60	Running hot and cold: behavioral strategies, neural circuits, and the molecular machinery for thermotaxis in <i>C. elegans</i> and <i>Drosophila</i>. Genes and Development, 2010, 24, 2365-2382.	5.9	179
61	The major Î±-tubulin K40 acetyltransferase Î±TAT1 promotes rapid ciliogenesis and efficient mechanosensation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21517-21522.	7.1	366
62	An Arf-like Small G Protein, ARL-8, Promotes the Axonal Transport of Presynaptic Cargoes by Suppressing Vesicle Aggregation. Neuron, 2010, 66, 710-723.	8.1	117
63	The Dystrophin Complex Controls BK Channel Localization and Muscle Activity in Caenorhabditis elegans. PLoS Genetics, 2009, 5, e1000780.	3.5	50
64	First report of action potentials in a C. elegans neuron is premature. Nature Neuroscience, 2009, 12, 365-366.	14.8	19
65	The quest for action potentials in C. elegans neurons hits a plateau. Nature Neuroscience, 2009, 12, 377-378.	14.8	73
66	SU-8 force sensing pillar arrays for biological measurements. Lab on A Chip, 2009, 9, 1449.	6.0	62
67	The C. elegansEMAP-like protein, ELP-1 is required for touch sensation and associates with microtubules and adhesion complexes. BMC Developmental Biology, 2008, 8, 110.	2.1	25
68	Keeping it regular with protons. Nature, 2008, 452, 35-36.	27.8	3
69	Bidirectional temperature-sensing by a single thermosensory neuron in C. elegans. Nature Neuroscience, 2008, 11, 908-915.	14.8	180
70	MEC-2 and MEC-6 in the <i>Caenorhabditis elegans</i> Sensory Mechanotransduction Complex: Auxiliary Subunits that Enable Channel Activity. Journal of General Physiology, 2008, 131, 605-616.	1.9	64
71	Patch Clamp Recording of Ion Channels Expressed in Xenopus Oocytes. Journal of Visualized Experiments, 2008, , .	0.3	7
72	Thermotaxis is a Robust Mechanism for Thermoregulation in Caenorhabditis elegans Nematodes. Journal of Neuroscience, 2008, 28, 12546-12557.	3.6	67

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73	Artificial Dirt: Microfluidic Substrates for Nematode Neurobiology and Behavior. Journal of Neurophysiology, 2008, 99, 3136-3143.	1.8	162
74	Making Patch-pipettes and Sharp Electrodes with a Programmable Puller. Journal of Visualized Experiments, 2008, , .	0.3	18
75	Pressure-polishing Pipettes for Improved Patch-clamp Recording. Journal of Visualized Experiments, 2008, , .	0.3	11
76	The Parallel Worm Tracker: A Platform for Measuring Average Speed and Drug-Induced Paralysis in Nematodes. PLoS ONE, 2008, 3, e2208.	2.5	253
77	Sensory Transduction in Caenorhabditis elegans. Springer Series in Biophysics, 2008, , 201-223.	0.4	0
78	MEC-2 and MEC-6 in theCaenorhabditis elegansSensory Mechanotransduction Complex: Auxiliary Subunits that Enable Channel Activity. Journal of Cell Biology, 2008, 181, i22-i22.	5.2	0
79	Nanoscale Organization of the MEC-4 DEG/ENaC Sensory Mechanotransduction Channel in<i>Caenorhabditis elegans</i>Touch Receptor Neurons. Journal of Neuroscience, 2007, 27, 14089-14098.	3.6	94
80	Gain-of-Function Mutations in the MEC-4 DEG/ENaC Sensory Mechanotransduction Channel Alter Gating and Drug Blockade. Journal of General Physiology, 2007, 129, 161-173.	1.9	37
81	Analysis of nematode mechanics by piezoresistive displacement clamp. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 17376-17381.	7.1	144
82	Dissecting a circuit for olfactory behaviour in Caenorhabditis elegans. Nature, 2007, 450, 63-70.	27.8	573
83	Mechanosensation. WormBook, 2006, , 1-14.	5.3	129
84	The MEC-4 DEG/ENaC channel of Caenorhabditis elegans touch receptor neurons transduces mechanical signals. Nature Neuroscience, 2005, 8, 43-50.	14.8	457
85	Molecules and Mechanisms of Mechanotransduction. Journal of Neuroscience, 2004, 24, 9220-9222.	3.6	25
86	EPPENDORF ESSAY WINNER: Deconstructing C. elegans Sensory Mechanotransduction. Science, 2004, 306, 427-428.	12.6	2
87	Sensation is painless. Trends in Neurosciences, 2003, 26, 643-645.	8.6	17
88	Transducing Touch inCaenorhabditis elegans. Annual Review of Physiology, 2003, 65, 429-452.	13.1	141
89	The mechanosensory protein MEC-6 is a subunit of the C. elegans touch-cell degenerin channel. Nature, 2002, 420, 669-673.	27.8	150
90	MEC-2 regulates C. elegans DEG/ENaC channels needed for mechanosensation. Nature, 2002, 415, 1039-1042.	27.8	294

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91	Pressure polishing: a method for re-shaping patch pipettes during fire polishing. Journal of Neuroscience Methods, 2000, 100, 13-15.	2.5	72
92	Active Currents Regulate Sensitivity and Dynamic Range in C. elegans Neurons. Neuron, 1998, 20, 763-772.	8.1	340
93	[13] Tight-seal whole-cell patch clamping of caenorhabditis elegans neurons. Methods in Enzymology, 1998, 293, 201-217.	1.0	39
94	Positive feedback by a potassium-selective inward rectifier enhances tuning in vertebrate hair cells. Biophysical Journal, 1996, 71, 430-442.	0.5	35
95	Ionic Conductances and Hair Cell Tuning in the Turtle Cochlea. Annals of the New York Academy of Sciences, 1996, 781, 103-122.	3.8	13
96	Variations in the ensemble of potassium currents underlying resonance in turtle hair cells.. Journal of Physiology, 1996, 497, 395-412.	2.9	44
97	A kinetic description of the calcium-activated potassium channel and its application to electrical tuning of hair cells. Progress in Biophysics and Molecular Biology, 1995, 63, 131-158.	2.9	121
98	Activation of the inositol trisphosphate second messenger system by cAMP in a mouse fibroblast cell line. Molecular and Cellular Biochemistry, 1991, 101, 43-9.	3.1	3
99	Inositol trisphosphate mediates cloned muscarinic receptor-activated conductances in transfected mouse fibroblast A9 L cells.. Journal of Physiology, 1990, 421, 499-519.	2.9	21
100	Calcium Currents and Fura-2 Signals in Fluorescence-Activated Cell Sorted Lactotrophs and Somatotrophs of Rat Anterior Pituitary. Endocrinology, 1988, 123, 611-621.	2.8	72